

2018 Registration Document

Including the Annual Financial Report



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2018 REGISTRATION DOCUMENT

INCLUDING THE ANNUAL FINANCIAL REPORT



AUTORITÉ
DES MARCHÉS FINANCIERS

This Registration Document was filed with the French financial markets authority (Autorité des marchés financiers, AMF) on 8 April 2019, in accordance with Article 212-13 of the AMF General Regulations. It may only be used in support of a financial transaction if accompanied by an offering circular authorised by the AMF. It was drawn up by the issuer and its signatories accept liability.

The English language version of this report is a free translation from the original, which was prepared and filed with the AMF in French. All possible care has been taken to ensure that the translation is an accurate presentation of the original. However, in all matters of interpretation, views or opinions expressed in the original language version of the document in French take precedence over the translation.

In accordance with Article 28 of Commission Regulation (EC) No. 809/2004, the following information is incorporated by reference in this Registration Document:

- the consolidated financial statements and corresponding audit reports presented on pages 35 à 83 of the 2017 Registration Document filed with the AMF on 30 March 2018;
- the Group's financial information, key figures and management report, presented respectively on pages 4, 5 and 8 to 34 of the 2017 Registration Document filed with the AMF on 30 March 2018;
- the consolidated financial statements and corresponding audit reports presented on pages 27 to 71 of the 2016 Registration Document filed with the AMF on 5 April 2017;
- the Group's financial information, key figures and management report, presented respectively on pages 4, 5 and 8 to 25 of the 2016 Registration Document filed with the AMF on 5 April 2017.

The omitted sections of these documents are either irrelevant to the investor, or addressed elsewhere in this Registration Document.

CHAIRMAN'S FOREWORD



Thanks to the commitment
of its 66,000 employees,
2018 was an excellent
year for Thales.

Patrice Caine

Chairman & Chief Executive Officer

Sales momentum gathered pace over the year, with order intake reaching €16 billion, organically up 9% compared to 2017. The Group recorded several commercial successes in transport, with the production of key systems for the future metro lines of the Grand Paris Express, in aeronautics, with OneSKY, Australia's major air traffic control modernisation project, in commercial space, with the construction of a next-generation VHTS satellite system for Eutelsat equipped with the most powerful on-board digital processor ever put in orbit (Konnnect VHTS), and institutional space, with a new framework contract to upgrade the mission segment of the Galileo satellite navigation system.

Shifts in defence budgets in Europe resulted in the award of several contracts with a unit value of over €100 million by our key military customers in France, the United Kingdom, Germany and the Netherlands. These contracts included the development of the new Rafale F4 standard for the French army, including new sensors and communication systems, the design of a next-generation defence system for the Royal Netherlands Navy's future frigates, and the supply of the combat system for five of the German Navy's new corvettes as part of a consortium.

For the third consecutive year, our organic revenue growth exceeded 5%, driven by an exceptional year in Transport and strong growth in the Defence & Security segment. Our operating profitability across all segments increased to 10.6%, a new level never before achieved by the Group.

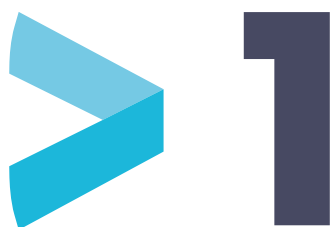
In early June, framework of a Capital Markets Day, we had the opportunity to present the Group's goals, key strategic priorities and financial objectives until 2021. Our action plan is clear: to sustain profitable growth over the long term, we must continue to deploy operational performance initiatives and strengthen our customer culture while stepping up our investments in innovation. This plan will allow us to maintain a steady growth rate of between 3% and 5% per year for the period 2018-2021 and reach a new milestone in terms of profitability: an operating margin of 11% to 11.5% by 2021.

The year also saw the meticulous preparation of the integration of Gemalto, which was completed in March 2019.

This transformative acquisition, announced in December 2017, is a powerful booster of our strategy. In the next few years, it will consolidate our leadership position in the digital transformation of our markets and our customers, and will allow us to build a global leader in the digital security market.

In an increasingly digital world, Thales's business model, which is both resilient and balanced, is creating more value than ever.

THE GROUP'S BUSINESS MODEL



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KEY FIGURES 2018

REVENUES

€15.9 billion

+5.3%

organic growth⁽¹⁾

EBIT⁽²⁾

€1.7 billion

10.6%

of revenues

FREE OPERATING CASH FLOW⁽²⁾

€0.8 billion

69%

of adjusted net income⁽²⁾

ORDER INTAKE

€16 billion

+9%

organic growth⁽¹⁾

EMPLOYEES

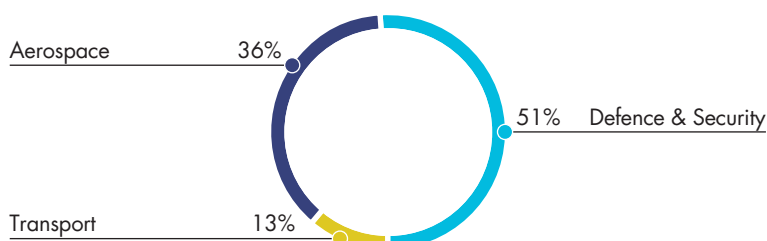
66,000

SELF-FUNDED R&D⁽²⁾

€879 million

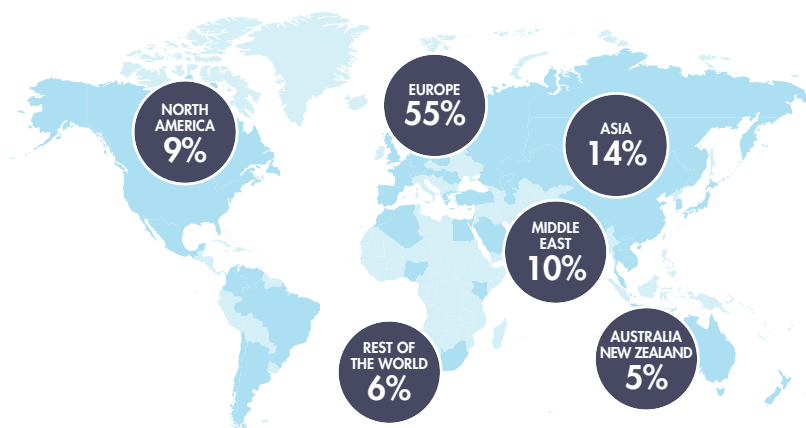
3 OPERATING SEGMENTS

(breakdown of sales by operating segment)



DIVERSIFIED GEOGRAPHICAL PRESENCE

(breakdown of sales by geographic region)



TOTAL SHAREHOLDER RETURN OVER 3 YEARS (TSR)

(as at 31/12/2018)

+55%

Thales

+13%

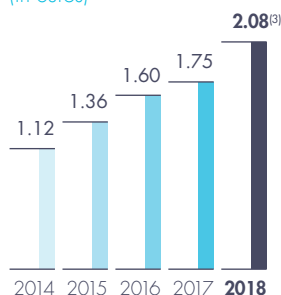
CAC 40

+35%

European Aerospace and defence industry

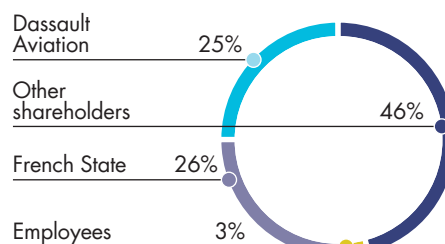
DIVIDEND

(in euros)



STRUCTURE OF SHARE OWNERSHIP

(as at 31/12/2018)



(1) Organic: at constant scope and currency.

(2) Non-GAAP financial indicators. See definitions page 27.

(3) Proposed to the Annual General Meeting of 15 May 2019.

OUR MISSION, OUR VALUES, OUR STRATEGY

OUR MISSION

At Thales we develop solutions that help our customers think smarter and act faster – mastering ever greater complexity and every decisive moment along the way.

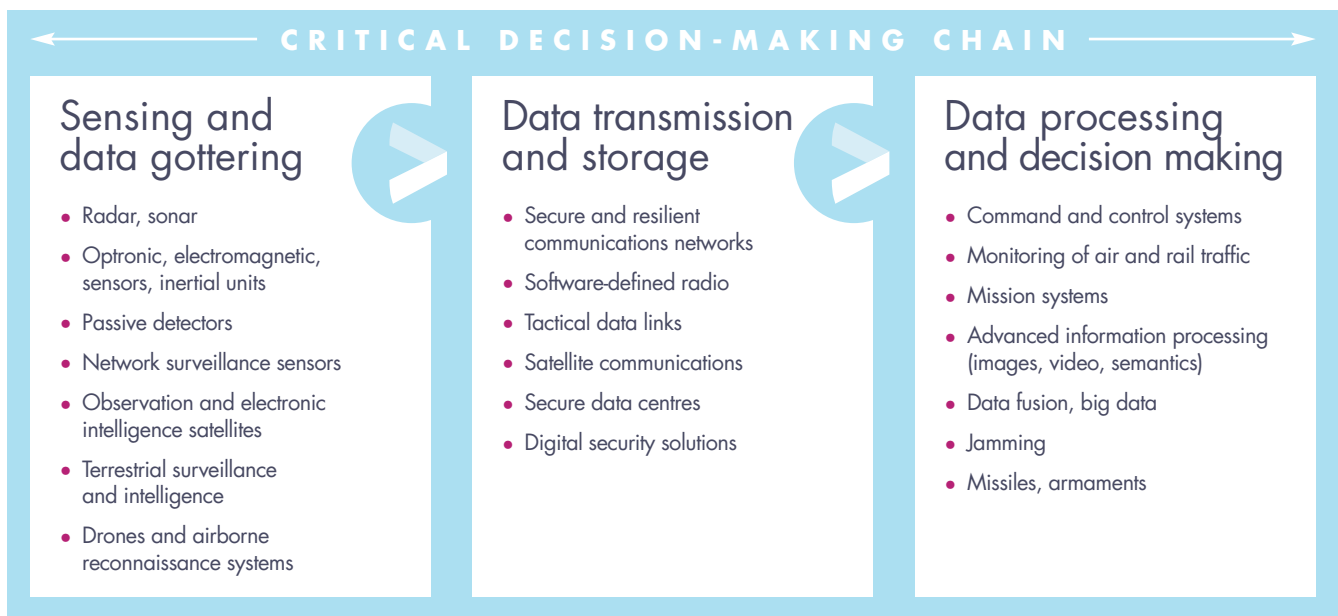
OUR VALUES

Five values underpin the actions of Thales and its employees on a daily basis:

- Customer confidence
- Development of our talent
- Responsiveness and innovation
- Responsibility for and commitment to excellence
- One team, one Thales

OUR STRATEGY

Thales's exceptionally high levels of technical expertise are the result of the creativity and commitment of its teams. This gives the Group a unique competitive advantage with which to achieve profitable growth in its five markets: aerospace, defence, security, space and ground transportation. These are markets in which intelligent systems focused on the critical decision chain play a key role.



THALES'S 4 STRATEGIC ASSETS

Cutting edge Research & Development leveraging a global innovation ecosystem

Thales devotes more than €3 billion – almost 20% of its revenues – to R&D, of which €879 million is self-funded.

The Group has 25,000 engineers engaged in R&D on a daily basis. In 2018, Thales was ranked number 1 in Europe (excluding pharmaceutical companies) by the magazine Nature for the quality of its research. This investment in R&D is part of an innovation ecosystem based on academic and entrepreneurial partnerships and initiatives developed jointly with customers and their ecosystems.

A unique portfolio of digital expertise

Thales builds and develops its digital expertise around four major digital technologies which play a key role in critical decision-making chains: connectivity and mobility, big data analytics, artificial intelligence and cybersecurity. Over the past few years, Thales has significantly strengthened its expertise in these areas through targeted acquisitions and by recruiting digital experts.

An in-depth knowledge of its markets

Thales focuses on five end markets that have many technologies and areas of expertise in common: aeronautics, space, defence, security and ground transportation. In virtually all its business activities, Thales is in the top 3 worldwide or ranks number 1 in Europe.

A global presence

Thales operates in over 50 countries and has customers in more than 100 different countries. Its long experience in international markets and complex partnerships is proving to be a key commercial asset.

OUR ACTIVITIES

AEROSPACE

> AERONAUTICS

Onboard electronic equipment designed to increase flight safety and reliability; civil and military aircraft simulators; onboard connectivity and in-flight entertainment.

Onboard equipment and functions for aircraft piloting, navigation and control.

Customers: aircraft manufacturers, airlines, armed forces.

Goals: to ensure the growth and improve the safety and environmental and economic efficiency of the civil aviation sector, and ensure passenger safety and comfort.

> SPACE

Equipment, payloads, satellites, systems and services for the space sector.

Customers: space agencies, telecommunications operators, satellite operators, armed forces, scientific institutions.

Goals: to design, develop and deploy orbital infrastructure, satellite systems, ground segments and related services for space programmes.

Contribution to performance

€5,780 million
in revenues
(36% of revenues)

€580 million
in EBIT
(10.0% of revenues)

Growth levers

- Average long-term growth of international air traffic (+ 3.5% p.a. between 2017 and 2036, according to IATA)
- 37,400 new aircraft placed on the market by 2037 (Airbus forecast)
- Unique role of smart systems to meet increased expectations in terms of operational and environmental efficiency
- Strong demand for in-flight connectivity solutions
- Unique positioning of space systems to meet new communication and observation requirements
- Military space: a growing priority for many countries

GROUND TRANSPORTATION

Rail signalling, control and monitoring of urban transport networks and main lines.

Ticketing solutions.

Customers: rail transport operators.

Goals: to optimise the capacity and efficiency of ground transportation networks under optimal safety conditions, at lower cost while providing better passenger services.

€2,001 million
in revenues
(13% of revenues)

€88 million
in EBIT
(4.4% of revenues)

- 60% of the world's population will be living in cities by 2030 (UN-Habitat)
- Greater citizen and government interest in more efficient and eco-friendly means of transportation
- Critical CO₂ reduction climate challenges which encourage public transport
- A strong trend towards rail transport solutions that are more automated or even autonomous
- Renovation of signalling systems: a major lever to increase the efficiency of existing infrastructures

DEFENCE & SECURITY

Sensors and mission systems.

Communications, command and control systems, networks and infrastructure systems, security and cybersecurity solutions.

Customers: armed forces, security forces, major corporations.





Goals: to support the armed forces in gaining and sustaining decision-making and operational superiority in conventional theatres, urban combat and cyberspace.

Providing integrated solutions, resilient networks and high added-value services to protect the public, sensitive data and critical infrastructures.

€8,020 million
in revenues
(51% of revenues)

€1,007 million
in EBIT
(12.6% of revenues)

- Confirmation of the increase in defence spending in mature markets in the face of growing geopolitical tensions and the return of symmetrical threats
- Growing digitisation of the armed forces
- Increasing convergence of defence and security segments
- Strong demand for cybersecurity, specifically corporate data protection

Strengths, areas of expertise	Sub-segments	Civil/military	Competitive position
<ul style="list-style-type: none"> The only global aerospace company with leadership positions in both onboard equipment (e.g. avionics and cabin systems) and ground equipment (e.g. radar and air traffic management systems) Present in all types of civil and military aircraft and all major new aeronautical programmes 	Flight avionics (€2,100 million in revenues)		# 3 in the world (commercial avionics)
	In-flight entertainment (IFE) (€750 million in revenues)		# 2 in the world
<ul style="list-style-type: none"> Thales Alenia Space is the prime contractor for the largest constellation of communication satellites currently in service: Iridium Next 	Space solutions for telecommunications, observation, navigation and exploration (€2,500 million in revenues)		# 2 in the world (civil satellites)
	Microwave tubes for satellites, civil and military applications (€450 million in revenues)		# 1 in the world
<ul style="list-style-type: none"> Unrivalled expertise: signalling implemented for 85 metro lines in more than 40 cities Inventor of major rail signalling standards: CBTC (Communication-Based Train Control) for underground trains and ETCS (European Train Control System) for mainline trains Leader in driverless metro signalling 	Rail signalling and supervision (€2 billion in revenues)		# 2 in the world
<ul style="list-style-type: none"> Long-time partner of the armed forces in numerous countries Global specialist in secure communication networks, the core of collaborative combat solutions World leader in radar and sonar technologies Active throughout the value chain, from equipment through to systems and systems of systems, as well as logistical support and related services Mastery of the new differentiating digital technologies: connectivity, big data, artificial intelligence, and cybersecurity The air traffic control centres equipped by Thales cover more than 40% of the earth's surface 	Sensors and mission systems (radars, sonars, optronic systems, mission systems for combat aircraft, ships and submarines, missiles and armoured vehicles) (€4 billion in revenues)		# 1 in Europe (defence electronics)
	Communications, command and control systems (military communications and networks, military command and control systems (C4I), civil and military cybersecurity, air traffic management, and security solutions for countries, cities and critical infrastructure) (€4 billion in revenues)		# 2 in the world (military tactical communications) # 1 in the world (air control management)

OUR VALUE CREATION PROCESS

ASSETS AND RESOURCES



INTELLECTUAL CAPITAL

€879 million self-funded R&D

A portfolio of
of more than 16,000 patents

One-third of the workforce in R&D

6 Innovation Hubs

3 Digital Factories

More than 50 academic partnerships



HUMAN CAPITAL

66,000 employees

More than 31,000 employee
shareholders

€6.5 billion in personnel expenses

76.5% of workforce trained
during the year



ENVIRONMENTAL CAPITAL

A rigorous strategy
and commitments
to **green growth**

Signatory to business proposals
for COP21 and the French Business
Climate Pledge



SOCIAL CAPITAL

A business ecosystem based
on **long-term relationships**

A strong **ethical policy**

Purchases accounting for
44% of revenues

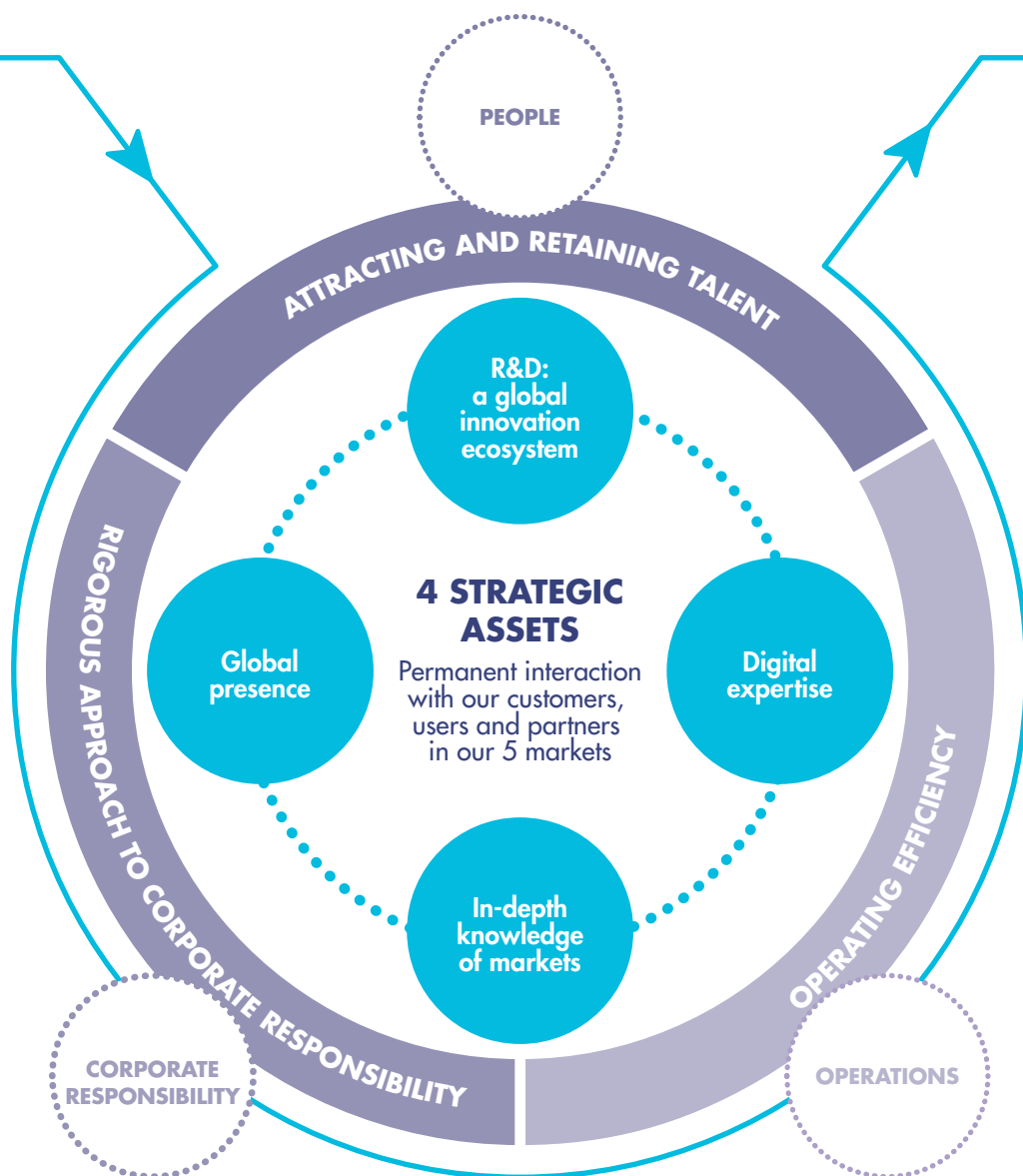


FINANCIAL CAPITAL

A healthy balance sheet with
€5.7 billion in shareholders' equity
(at 31 December 2018)

€3,181 million net cash
(at 31 December 2018)

Very solid credit profile,
S&P rating: A-



SERVING 5 KEY MARKETS



Aeronautics



Defence



Security



**Ground
transportation**



Space

ACHIEVEMENTS IN 2018



INTELLECTUAL CAPITAL

330 new patent applications

5.5% of revenues invested in self-funded R&D, +10% versus 2017

Thales once again ranked in the **Top 100** most innovative companies in the world by Clarivate Analytics



HUMAN CAPITAL

8,100 recruitments, of which **5,200** permanent jobs

93.1% full-time contracts

50% women on the Board of Directors

2.4% global absenteeism rate

7.9% of turnover

Best employer 2018 (Capital magazine)



ENVIRONMENTAL CAPITAL

Tracking of CO₂ emissions (scope 1 and 2) in tCO₂/€ million compared to 2015: **-16%**

Rated A – by the Carbon Disclosure Project

Water consumption (m³ per €m of sales): **-14%** versus 2015

58% of non-hazardous waste recycled⁽¹⁾



SOCIAL CAPITAL

74% of purchases made with EU suppliers, including 41% with suppliers in France

€314 million in tax, i.e. an average tax rate of 26%

€21 million invested in the third-sector economy and social outreach by more than 20,000 employees enrolled in a Thales company savings or retirement plan

At end-2018, **75%** of the 2,000 customers surveyed said they were satisfied or very satisfied with Thales

Advanced level of the UN Global Compact for the past 7 years

Ranked 1st in the "Defence and Aerospace" category by the DJSI for the 2nd year in a row.

Leading French corporate contributor to microDON's payroll donation scheme (in terms of amount raised and number of donors)



FINANCIAL CAPITAL

(2018 versus 2017)

Organic growth in revenue: **+5.3%**

Growth in EBIT: **+23%**

Increase in dividend per share⁽²⁾: **+19%**

(1) Excluding exceptional.

(2) Proposed to the Annual General Meeting of 15 May 2019.

VALUE CREATION SHARED WITH OUR STAKEHOLDERS

2018 REVENUES

€15.9 billion

SUPPLIERS PURCHASES AND OTHERS

€7.0 billion

EMPLOYEES COMPENSATION PAID IN 2018

€6.5 billion

GOVERNMENTS INCOME TAX (2018)

€314 million

SHAREHOLDERS DIVIDENDS PAID IN 2018

€382 million

ABILITY TO FINANCE FUTURE GROWTH

SELF-FUNDED R&D IN 2018

€879 million +10%

TOTAL ACQUISITIONS 2016-2018

€584 million

OUR 5 STRATEGIC PRIORITIES UNTIL 2021



Launched in 2013 for 10 years, the strategic plan "Ambition 10" embodies a simple goal: to make Thales a leader in each of its business activities. The strategic plan was updated in June 2018. Over the period 2014-2017, the plan achieved all its objectives. Thales returned to growth and became both more global and more profitable. Over the period 2018-2021, the Group's leadership goal must be reflected in the **growth of each activity** which is **to outpace the market** while **delivering profitability in a sustainable way**. With this end in mind, the Group has set itself **5 strategic priorities** until 2021.

IMPLEMENT POWERFUL OPERATIONAL PERFORMANCE LEVERS

1 REINFORCE CUSTOMER-CENTRIC ORGANIZATION AND CULTURE

The Group will further strengthen its customer-centric culture by introducing new marketing and sales initiatives to bring it closer to its customers, optimise its sales opportunity portfolio, and boost exports from its main host countries.

2 RELENTLESSLY OPTIMISE OPERATIONAL PERFORMANCE

The Group will continue to focus its competitiveness initiatives on four major areas:

- **procurement performance**, driven by a new worldwide integrated organisation and the introduction of powerful new methods;
- **engineering competitiveness**, notably through the further deployment of agile methods, state-of-the-art digital engineering tools and the further reinforcement of skills and capabilities;
- **support-function efficiency**, with the implementation of standard worldwide operating models across every support function, fostering process standardisation, digitisation and further platforming of resources;
- **excellence in delivery**, focusing in particular on continually improving operational excellence, specifically in the management of bids and in project execution, against a backdrop of sustained business growth.

Complemented by the positive impact on product competitiveness arising from increased R&D, these four initiatives are expected to generate a 200 to 240 basis point improvement in EBIT⁽¹⁾ margin by 2021.

INVEST TO SUSTAIN LONG-TERM GROWTH

3 ACCELERATE R&D INVESTMENTS TO DRIVE TECHNOLOGICAL EXCELLENCE

To drive technological excellence and lead the digital transformation of its markets, Thales plans to further increase its self-funded R&D investments. These are expected to reach approximately €1 billion per year by 2021 (excluding Gemalto), an increase of between 25% and 30% compared to 2017.

4 POSITION THALES AS A LEADER IN THE DIGITAL TRANSFORMATION OF ITS MARKETS

Over the next 5 to 10 years, the accelerated pace of digital innovation will transform and upend the activities of Thales's customers.

With its focus on critical decision chains, digital by nature, its large integrated network of digital native talents, and its unique portfolio of digital capabilities, notably in the areas of connectivity, big data analytics, artificial intelligence and cybersecurity, Thales is ideally positioned to lead the digital transformation of its markets.

To execute this strategy and partner with its customers through their digital transformations, Thales will capitalise on its recent digital acquisitions and the launch of its Digital Factories, while focusing its R&D investments on developing "dream" products incorporating breakthrough digital technology and new digital services.

5 EXECUTE ON THE TRANSFORMATIVE ACQUISITION OF GEMALTO

The acquisition of Gemalto, a major accelerator of Thales's digital strategy, is effective since April 2019.

By combining Thales's and Gemalto's digital assets, this merger creates a world leader in digital security and cybersecurity, based on a portfolio of solutions including security software, expertise in biometrics, multi-factor authentication and the issuance of secure physical and digital certificates. These technologies, which address a variety of use cases which are constantly evolving, aim to generate plentiful business opportunities and revenue synergies in the coming years.

By integrating Gemalto's expertise in object identification and security, Thales is also bolstering its distinctive positioning on its five major markets and becomes the only player in the world able to offer comprehensive solutions for securing critical decision-making chains all the way through from data generation by sensors to real-time decision making.

(1) Versus reported EBIT margin of 9.8% in 2017.

OUR MEDIUM-TERM OBJECTIVES

FINANCIAL OBJECTIVES

THALES WITHOUT GEMALTO

Organic growth in revenues	+3 to +5%	on average over the period 2018–2021
EBIT margin ⁽¹⁾	11 to 11.5%	in 2021 while significantly increasing R&D expenditure

ACQUISITION OF GEMALTO

Annual cost synergies	€ 100 to 150 million	by 2021
Accretion of adjusted EPS ⁽¹⁾	15 to 20%	as of the first year
Return on capital employed for the transaction, including synergies	Exceeding Thales's cost of capital	3 years after completion of the transaction

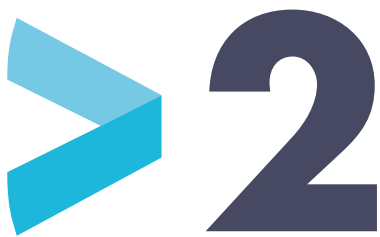
NON-FINANCIAL OBJECTIVES

Percentage of new suppliers committed to the principles of the new Purchasing Charter	100%	by 2023
Frequency rate of work accident with absence from work (Thales employees)	-30%	by 2023 (reference year: 2018)
Reduction in CO ₂ emissions (scopes 1 and 2) expressed in tCO ₂ /€ million in revenues	-3%	in 2019 (reference year: 2018)
Non-hazardous waste recycling rate	>75%	by 2023
Percentage of women among new hires	40%	
Percentage of women in top positions	30%	
Percentage of management committees ⁽²⁾ with at least 3 women	100%	

(1) Non-GAAP financial indicators. See definitions page 27

(2) Global Business Units, Business Lines and Major Countries.

BUSINESS REVIEW



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2.1 OPERATING SEGMENTS

2.1.1 Aerospace segment

2.1.1.1 Key figures

(in € millions)	2018	2017
Order book at 31 December	7,985	8,260
Order intake	5,346	5,237
Revenues	5,780	5,747
EBIT ^(a)	580	567
Consolidated number of employees	18,497	18,772

(a) Non-GAAP indicator. See definition on page 27.

2.1.1.2 Avionics

2.1.1.2.1 General overview

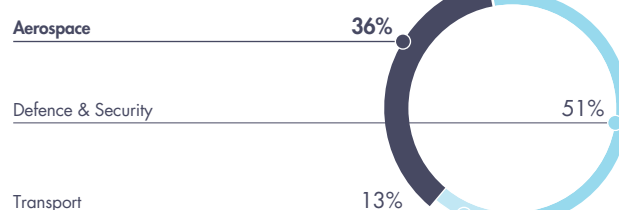
Thales supports aircraft manufacturers, the armed forces, airlines, operators, pilots, crews and passengers in making improvements to flight efficiency, safety and comfort. The secure, natively connected systems that Thales designs allow aircraft to fly under all conditions and to interface with all parts of the aeronautical ecosystem, on the ground or in flight.

The range of avionic equipment, systems and applications covers four main domains:

- **Piloting and control of the aircraft:** information display solutions in cockpits are equipped with simplified "human-system" interfaces for optimised flight management and conduct and a permanent connection with airlines and air traffic control.
- **Support and services:** Thales's digital solutions make the pilot's tasks easier and enable real-time fleet tracking to optimise operating costs and increase aircraft availability.
- **Passenger experience:** airlines use Thales to personalise the services they offer their passengers via the latest generation of onboard multimedia systems supported by high-speed connectivity. Thales also makes use of the latest technology in data analytics to enable airlines to access new sources of revenue generated by specific applications offered to passengers depending on their profile. In addition, the Group offers cabin lighting and aircraft interior systems. These are provided through Diehl Aerospace, a joint venture with Diehl.
- **Simulation and training:** simulator training for pilots of military aircraft and civilian and military helicopters help them prepare more effectively for missions while reducing training costs. Thales supplies the flight simulators for many European and Australian defence programmes, as well as providing training and instruction.

Thales also provides electrical power generation and conversion solutions, and electric motors, in addition to power amplification and X-ray imaging solutions for the space and defence industries and the medical segment.

Sales by segment



2.1.1.2.2 Competitive position

As one of the leading players in the avionics market alongside Honeywell and Rockwell Collins, Thales supplies the commercial and military aircraft manufacturers Airbus, ATR, Bell, Boeing, Bombardier, Cessna, Dassault Aviation, Embraer, Gulfstream, Leonardo, NHIndustries, Sikorsky and Sukhoi.

In the in-flight entertainment segment, Thales is one of the top two players, alongside Panasonic Avionics.

The Group has numerous competitors in the simulation solutions market, particularly US defence companies such as Lockheed Martin, Raytheon and L3Com.

Thales continues to be a global market leader in microwave and imaging subsystems, and its main competitors in these markets are Varian Medical Systems, CPI and L3.

2.1.1.2.3 Significant events in 2018

In **commercial avionics**, Thales formalised a collaborative partnership with Bell Helicopter to develop flight control systems for its vertical-takeoff-and-landing (VTOL) aircraft and on-demand mobility solutions. Thales also strengthened its partnership with China Southern Airlines to supply a package of avionics components for its newest A320NEO aircraft, to include Thales's flight management system (FMS). Thales also supplies the airline with collision avoidance systems for its Boeing 737MAX.

For the twelfth year running, Thales has consolidated its position in offering support to airlines, ranking third best supplier in the annual Airbus rankings.

In **military avionics**, Thales has been selected to supply flight management systems for 6 MRTT (Multi-Role Tanker Transport) aircraft to be delivered to Germany and Norway. In addition, in partnership with Dassault Aviation, Thales will supply head-up and head level displays for 12 additional Rafale multi-role aircraft ordered by Qatar, following the 36 units ordered in 2015.

As regards **in-flight entertainment**, 2018 saw the roll-out of the FlytLive connectivity offer across the entire Spirit Airlines fleet, and the commissioning of Singapore Airlines' new A350-900 medium-haul aircraft fitted with Thales's Avant in-flight entertainment system. The year also saw the launch of the "Core" and "Prestige" solutions, bracketing Thales's Avant offer, and the signature of turnkey equipment and maintenance supply contracts with a variety of airlines, including Air Canada, American Airlines, China Southern Airlines, Ethiopian Airlines, Hong Kong Airlines, JetBlue and Vietnam Airlines.

In **training and simulation**, Thales was awarded a contract by the French Defence Procurement Agency (DGA) to supply SIMTAC simulators configured for the Atlantic 2 aircraft, and signed the NARTRAC (North America Regional Training Center) agreement with Airbus Helicopters to jointly develop a training centre in Texas. In China, Thales and helicopter manufacturer Avicopter signed a memorandum of understanding to establish a helicopter pilot training centre as part of a strategic partnership.

Turning to **electrical systems**, Thales signed a memorandum of understanding in connection with the planned power generation and conversion systems for Dassault Aviation's future F5X/F6X.

In **imaging and microwave subsystems**, Thales was selected to supply transmitters for the South Korean KM-SAM multifunction radar system designed to protect sensitive areas, as well as amplifier tubes for GEOSAT satellite systems in India.

The year also saw the stepping-up of the digital transformation of Thales's solutions, which resulted in the establishment of a dedicated "Digital Competence Centre" and the speedy launch of a range of offers designed as part of an MVP (Minimum Viable Product) approach. Specifically this included the PartEdge application for accessing inventory of certified aircraft parts, the Soarizon platform for managing drone operations, and an enhanced mission and visualisation system for helicopter pilots.

2.1.1.3 Space

2.1.1.3.1 General overview

Thales Alenia Space, a joint venture between Thales (67%) and Leonardo (33%), forms the Space Alliance with Telespazio to offer a full range of solutions including services. Combining more than 40 years of experience and a unique diversity of expertise, talent and cultures, Thales Alenia Space architects design and deliver high technology solutions for telecommunications, navigation, Earth observation, environmental management, exploration, science and orbital infrastructures. Governments, institutions and companies rely on Thales Alenia Space to design, operate and deliver satellite-based systems that help them geolocate and connect anyone or anything anywhere in the world, help observe the planet, and help optimise the use of the planet's – and the solar system's – resources.

A key participant in environmental programmes

Thales Alenia Space's renowned expertise in high-resolution (sub-metric) optical and radar payloads for military, civilian or dual missions covers a wide range of uses, including information gathering, target designation, meteorology, altimetry, oceanography, climatology, carbon cycle studies, mapping and crisis management. Thales Alenia Space satellites help provide a better understanding of planet Earth and how to protect it. In this market segment, alternative solutions are beginning to emerge comprising low-orbit high-revisit constellations and products complementary to satellites such as HAPS (High Altitude Platforms). There is also increasing focus on the use of hyperspectral sensors. In addition to its involvement in the continuity of the European Copernicus programme and its Sentinel missions (in the Meteosat Third Generation), Thales Alenia Space, along with Telespazio (through the Space Alliance), is investing in high-revisit solutions and space surveillance from space.

At the forefront of the origins of the Universe and deep space exploration

The International Space Station (ISS) has generated new needs in terms of resupplying the astronauts on board. Future projects beyond Earth are under consideration, especially the development of a space station around the Moon. Thales Alenia Space manages key technologies for the ISS: 50% of its pressurised module, along with the Cygnus and ATV refuelling cargo spacecraft. Future vehicles such as Space Rider and soon the Orion spacecraft are pushing the teams towards new challenges. Thales Alenia Space also plays a central role in the adventure of future scientific missions through the ExoMars 2020, Solar Orbiter, Bepi Colombo, Juice, Euclid, NEXT-Step-2, Mars Sample Return and FLEX programmes.

At the forefront of geolocation and navigation systems

Thales Alenia Space remains at the forefront in satellite navigation systems (Egnos, Galileo) and at the cutting edge of geolocation solutions, including Argos NEO, its MEOLUT (Medium Orbit Local User Terminal) Next station for search and rescue services, and the development of the Kineis constellation for connected objects.

At the cutting-edge of innovation and digital transformation

Thales Alenia Space is developing the *Stratobus*, an autonomous geostationary stratospheric airship that is complementary to satellite solutions and is designed for regional telecommunications, surveillance and environmental applications.

The company stands at the heart of the digital transformation, especially with its fully processed flexible payloads and its digital twin, a virtual satellite that validates a mission with the customer during the upstream phase.

Services for European launchers

Thales Alenia Space has been contributing to the European launcher industry for more than 40 years as a key supplier of many electronic systems developed in Belgium for the entire Ariane family (Ariane 1 to 6), the Italian Vega launcher and the Russian Soyuz launcher, which are launched from French Guiana.

2.1.1.3.2 Competitive position

The geostationary telecommunications market has experienced a slowdown in orders in the past two years. Operators' needs are changing and the satellite renewal market needs to take this into account. Although large operators continue to order and operate high-power satellites, some operators are moving towards smaller satellites with reduced capacity (100 or 200 gbit) that are more flexible and digitalised. The constellation market, in which Thales Alenia Space is the leader, seems to be taking its place alongside GEO needs, driven in particular by the emergence of new needs and services such as Internet of Things (IoT), In-Orbit Servicing (IOS), Space Situational Awareness (SSA), and high-revisit solutions.

In the commercial satellite market, Thales Alenia Space's main competitors are Airbus Group, Boeing, Lockheed Martin, Maxar and Northrop Grumman. It is also important to count on the gradual arrival in the commercial market of new international players (from Russia, China, India, Israel, Japan, etc.) in the domains of telecommunications and observation.

The leading competitors in institutional and military markets in Europe, which is to a large extent dependent on governments' budgetary situations, are Airbus Group and OHB – which are also partners on some programmes – as well as Boeing and Lockheed Martin for export contracts.

2.1.1.3.3 Significant events in 2018

In telecommunications, Thales Alenia Space signed a contract with Eutelsat to develop a next-generation VHTS (very high throughput satellite) geostationary system named KONNECT VHTS to deliver very high throughput and in-flight connectivity in Europe. Built on the all-electric Spacebus NEO platform, the satellite will be equipped with a flexible, digital VHTS payload. Thales Alenia Space, in partnership with Maxar, has also been selected by Telesat to complete the validation phase of the key technologies used in its new low-earth orbit constellation.

In earth observation, Thales Alenia Space will be developing a constellation of four earth observation radar satellites – the "K425 project" – in partnership with the Korean space industry. Contracts have been signed with Korean Aerospace Industries (KAI) and Hanwha Systems Corporation (HSC). The company was chosen by the European Space Agency as measuring instrument prime contractor for one of the studies led by the Copernicus mission and to support the processing of the data provided by the Sentinel 2A and 2B earth observation satellites.

In exploration, Thales Alenia Space signed a study contract with the European Space Agency for the LISA (Laser Interferometer Space Antenna) mission. The aim is to investigate the history of the universe by unlocking the mystery of gravitational waves and black holes. Thales Alenia Space will lead the study phase involving two European elements of the next lunar space station – LOP-G (Lunar Orbital Platform Gateway) and ESPRIT (European System Providing Refuelling, Infrastructure and Telecommunications). Lastly, Thales Alenia Space and OHB have signed the PLATO (PLANetary Transits and Oscillations of stars) contract to detect and observe extrasolar planetary systems.

In navigation and geolocation, Thales Alenia Space and Inmarsat will work together with the European Space Agency on Iris, a ground-breaking programme that will enhance air traffic management in Europe. Thales Alenia Space's MEOLUT Next solution, which responds to distress signals, has been chosen by Canada, the Republic of Togo, the European Commission and NOAA (National Oceanic and Atmospheric Administration) in the United States. Lastly, the European Space Agency confirmed its trust in Thales Alenia Space for the operational phase of the Galileo ground mission and the Galileo security facility.

In 2018 Thales Alenia Space took part in 10 launches that sent into orbit 33 satellites and 2 Cygnus cargo vessels, destined for the International Space Station: one telecommunications satellite (Bangabandhu Satellite-1), three observation satellites (Sentinel 3B, Mohamed VI-B and CSO), four satellites in the O3b constellation, and 25 satellites in the Iridium NEXT constellation, which is now fully deployed and operational.

Thales Alenia Space has initiated its digital transformation and entered the industry 4.0 (smart factory) era, particularly with the introduction of robots and cobots in industrial processes, a record number of parts in orbit (more than 1,000) made using 3D manufacturing, the use of virtual and augmented reality, automated production chains, the creation of digital twins for the design of future satellites and a FabLab approach at its industrial sites.

Thales Alenia Space has entered the "new space" segment, offering solutions for applications of the future: connected objects (IoT or Internet of Things), with the contract to develop the Kineis nano-satellite constellation; high revisits, with the acquisition of a stake in Spaceflight Industries to develop the BlackSky constellation; Space Situational Awareness (SSA), with the acquisition of a stake in Northstar to develop a dedicated satellite constellation; and in-orbit Servicing (IOS), with the development of its Spacestart product.

2.1.2 Transport segment

2.1.2.1 Key figures

(in € millions)	2018	2017
Order book at 31 December	4,144	4,289
Order intake	1,858	1,781
Revenues	2,001	1,723
EBIT ^(a)	88	57
Consolidated number of employees	7,753	7,005

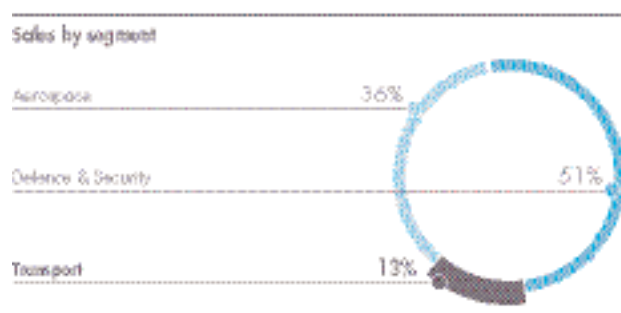
(a) Non-GAAP indicator. See definition on page 27.

2.1.2.2 Ground Transportation Systems

2.1.2.2.1 General overview

The Group is one of the foremost global players in railway signalling, telecommunications and supervision systems. It also offers ticketing solutions.

Thales provides systems for urban transport networks (metros and trams) and mainline networks (conventional, high-speed and freight). Thales capitalizes on its expertise in the field of critical information systems and cybersecurity, Big Data, IoT and AI, to offer to transport network operators integrated and protected solutions to effectively supervise and



control their operations. The systems provided by Thales also contribute to increasing the security of its customers' passengers, staff and infrastructure.

2.1.2.2.2 Competitive position

Specialised in intelligent critical systems and services, Thales sets itself apart from its "generalist" competitors, who offer product ranges dominated by rolling stock. The rapid digitisation of railway transport products, solutions and operations has made Thales a recognised leading player with a unique position in these markets. The acquisition of Cubris, a leader in Driver Advisory Systems (DAS) for Main Line Rail customers, reinforces its position and paves the way for the future autonomous trains.

In signalling, Thales is a key player, and its main competitors are Siemens, Alstom, Hitachi-Ansaldo, Bombardier Transport and China Railway Signal & Communication (CRSC).

To enable the ticketing and road tolls activities and to allow them to focus on developing the business and on repositioning it as a leader in this market, Thales has decided to stop looking for outside partners and to search for strategic partners.

2.1.2.2.3 Significant events in 2018

For **urban** integrated signalling, communications, security and monitoring activities:

In France, Thales won two contracts of the future Grand Paris Express metro (125 km of lines, 159 trains). The first one will provide onboard systems. The second contract will consist in designing and implementing the Operating Control Centers as well as trackside equipment and a secure communication network.

In North America, continuing its expansion, Thales has won a new contract in Montreal. Thales will deliver new computer based interlocking systems across all lines of the city's underground rapid transit system.

In China, through its Thales SEC Transportation System (TST) joint venture, Thales won a contract for the signalling of the first IOP (Interoperability) metro line Qingdao Line 3. In 2018, TST also commissioned the signalling systems for eight metro lines including the first fully redundant CBTC@2.0 in Shanghai.

In Egypt, where Thales has provided monitoring, communications and security solutions for over 30 years, a new contract was won for Cairo metro phase 4B of line 3.

In the UK, Thales completed the biggest test on the London tube network new signalling system to transform the Circle District, Hammersmith & City and Metropolitan lines and boost capacity by 40 per cent. The state-of-the art Hammersmith control centre opened and became operational in May and brand new signalling began controlling trains in the summer on the Circle and Hammersmith & City lines.

For **mainline** integrated signalling, communications, security and monitoring activities:

In Norway, Thales will digitalize the rail network with the next-generation nationwide Traffic Management System based on Thales's ARAMIS system. The solution has been substantially enhanced to provide a cyber-secured, cloud ready platform with a fully adapted Human machine Interface which will leverage the full potential of the modernization program to improve train punctuality, passenger's safety and comfort and facilitate the mobility of people, goods and ideas throughout the country.

In Poland, Thales will modernize the Polish rail network. The contract includes the implementation of the ERTMS/ETCS level 2 (European Rail Traffic Management System/European Train Control System) on two major lines. ERTMS/ETCS is a signalling system designed to limit the number of incidents, and ensure that a greater number of trains can be managed safely. The deployment of Thales's signalling systems, which are fully compatible with European standards for rail transport, marks an important milestone for the country as it achieves greater and greater integration with its European Union partners.

In Egypt, Thales won the extension and modernization of the Cairo-Benha section on the country's busiest line. With these new systems, the operator will be able to double the total average capacity of this section for the transport of passengers and goods and it will substantially improve safety.

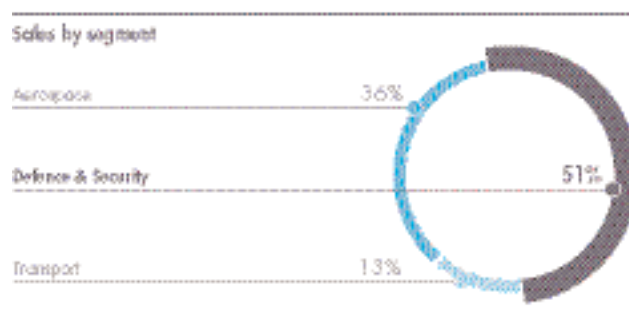
In the UK, Thales won the fitment and supply of European Train Control System (ETCS) onboard units for Class 43 high-speed train retrofit. The implementation will benefit passengers and freight operators by delivering additional capacity, improving performance, enhancing safety and reducing the costs of operating the national railway. The new Thales onboard system will be integrated as part of the Digital Railway train control system, and will enable rolling stock to operate on ETCS-equipped infrastructure. The onboard equipment is an evolution of Thales's level 1 ETCS system that has been successfully deployed worldwide.

2.1.3 Defence & Security segment

2.1.3.1 Key figures

(in € millions)	2018	2017
Order book at 31 December	20,131	19,451
Order intake	8,775	7,857
Revenues	8,020	7,690
EBIT ^(a)	1,007	757
Consolidated number of employees	34,677	34,011

(a) Non-GAAP indicator. See definition on page 27.



2.1.3.2 Secure communications and information systems

2.1.3.2.1 General overview

The armed forces, security forces and essential operators rely on Thales for their interoperable and secure information and telecommunications systems. Positioned at the heart of the defence and security continuum, the Group is involved in the entire value chain, from equipment and systems to logistics support and related services. The solutions it provides meet the needs of markets where the use of new digital technologies such as 4G networks, cryptography, cloud computing, artificial intelligence and big data is crucial. The Group is developing new digital platforms and new service models, making full use of digital technologies.

These activities are developed around four segments:

- **radio communications products:** Thales designs embedded and tactical radio communications systems for land, air and sea, identification friend or foe (IFF) systems, aeronautical radio navigation systems and solutions for electronic communications warfare. The armed forces of more than 50 countries around the world are equipped with Thales solutions. The Group is a major player in the development of interoperable, secure Software-Defined Radio (SDR) solutions and is the prime contractor for the French Army's CONTACT programme;
- **network and infrastructure systems:** Thales designs, supplies, deploys, supports and operates fixed or mobile communications networks for the defence and security forces, international agencies and organisations, and critical infrastructure operators. Its resilient, secure systems rely on the full range of military and commercial technology. In France, Thales is responsible for renovating defence communication systems through the Descartes programme, for renovating the French government's strategic communication networks, and for supporting the information system of the French Ministry of the Armed Forces. In addition, the Group operates communication systems in theatres of operation in Afghanistan, Mali and the Central African Republic, and secure communications infrastructure for major European organisations. Thales also offers satellite communication ground systems in France, via the Syracuse programme, and for export;
- **protection systems:** as a European leader in the digitised battlefield, Thales develops collaborative combat systems and information, command and intelligence systems for the armed forces (C4ISR – Computerized Command, Control, Communications, Intelligence, Surveillance and Reconnaissance). Based on this technology developed for its military customers (France, NATO, export), the Group also responds to growing security needs for cities, critical infrastructures, airports and other particularly sensitive sites. All of these systems are intended to enable the fastest and most appropriate decision-making, whether automatic or by operators;
- **critical information systems and cybersecurity:** Thales's expertise in critical information systems makes it a major player in Europe. As such, the company helps secure its customers' digital transformation by:
 - advising them on their cybersecurity strategies, either upstream or in the event of a crisis, and training their teams to deal with cyber risk,
 - enabling them to better anticipate, detect and respond to cyber threats through in-depth and continually updated knowledge of attacks, derived from cyber threat intelligence,
 - designing natively secure information systems through its software development and integration services, including in the domain of IoT, and outsourcing these systems, particularly in the context of cloud hybridisation projects,
 - operating information systems securely through five cybersecurity monitoring centres around the world and protecting networks and data, especially sensitive or classified data, using high-grade cybersecurity products.

2.1.3.2.2 Competitive position

Thales has a variety of competitors depending on the business and market concerned.

In defence applications – radio communications, networks, and command and control – the main competitors are predominantly American: Harris, General Dynamics, Raytheon and Rockwell Collins. Israel-based Elbit Systems is also a competitor in integrated command and communication solutions. There are also software solution providers, such as Danish company Systematic, and generalist information systems integrators, such as Atos and Sopra Steria. In Europe, the Group's main competitors are Airbus Group and, in the radio communications sector, Rohde & Schwarz, Leonardo, Bittium from Finland and Aselsan from Turkey.

In security, Thales's competitors come primarily from the aeronautic and defence segment (Boeing, Northrop Grumman, Honeywell, Airbus Group, etc.), the equipment segment (such as Siemens and Johnson-Tyco), or from services (INEO, etc.) and information systems (including IBM, Atos and Capgemini). The latter are also competitors of Thales in critical information systems.

Finally, in cybersecurity, Thales is in competition with companies such as Orange Cyberdefense in the commercial sector, BAE Systems, Ultra Electronics, Airbus Group and Secunet in the defence sector, and Atos, Sopra Steria and Capgemini in the digital services sector.

2.1.3.2.3 Significant events in 2018

In **radio communications**, the French software-defined radio programme CONTACT for the French army, air force and navy, is continuing, in particular with the development of the first version of an aeronautical system and corresponding equipment. The CONTACT system will integrate the upcoming standards for the Rafale F4 combat aircraft, the Tiger attack helicopter and MRTT aircraft. At the same time, Thales continues to develop SYNAPS, the export version of CONTACT, carrying out a series of demonstrations in the countries of its main European and global customers to show the operational advances made in collaborative combat capability and high data rates. To meet the needs related to CONTACT and SYNAPS, Thales has set up a new production line that will be able to produce several thousand radio sets per year, in their different versions.

The US Army has selected Thales to equip new regiments with the dual-channel improved multiband inter-intra team radio (IMBITR) as well as satcom terminals. Thanks to the interoperability of this equipment, the different units will be able to simultaneously exchange voice, data and video communications.

Thales has also been chosen to work alongside the French Army to maintain its equipment in operational order.

Thales marked some milestones in 2018, first with the testing, certification and production of new solutions for mobile satellite terminals (Iridium Certus) for air, land and sea applications and then with the signing of 10 distributor agreements for the sale of these solutions.

In naval communications, Thales was awarded a contract by Britain's Ministry of Defence for the design, manufacture, installation and in-service support of the V/UHF Communications Replacements (VCR) across the Royal Navy fleet and for the German navy's K130 ships. The Royal Netherlands Navy, meanwhile, again placed its trust in Thales for the supply of next-generation IFF systems. These will also be used by the Belgian and Portuguese navies.

In **networks and infrastructure systems**, Thales continued to increase business with major global agencies with the delivery of the first phase of the secure ground network infrastructure supporting the operation of the Galileo system, the award of the contract to install and operate a secure network for the European Union, and the renewal of the contract to supply and operate Afghan theatre networks for NATO.

In France, Thales was entrusted with a major strategic communications renewal programme and is continuing its investment in digital technologies with the roll-out of its LTE offer, which will equip a major defence site. The year also saw the development of its defence cloud offer and the signature of a strategic partnership with Microsoft to develop a common defence cloud solution for the armed forces. In terms of exports, in the military satellite communications sector Thales was chosen by a Middle Eastern country to supply a complete ground system to complement the space segment currently being built by Thales Alenia Space.

Thales also acquired and industrially integrated its partner Arélis in the high-power radio domain, strengthening its position in resilient networks.

With regard to **protection systems**, Thales's solutions address both the defence and security markets. In defence, the Group delivered the first phase of the Artemis programme, a big data platform for the DGA. Belgium, meanwhile, chose Scorpion for its ground forces, with Thales in charge of electronics and collaborative combat, as in France. The long-term goal is complete interoperability of the two forces. Lastly, in France, Thales will protect the Lyon Mont-Verdun national military site as part of the "PassDef" framework contract.

In security, Thales has secured a new terminal at Muscat airport (Sultanate of Oman). In Mexico City, the Group is continuing the roll-out of the "Ciudad Segura" urban safety project, upgrading the current system.

In **critical information systems and cybersecurity**, Thales has strengthened its global presence with the signing of a dozen new cybersecurity supervision contracts in France, Belgium, the United Kingdom, Hong Kong, Canada, the Netherlands and Australia. It has also opened a new cybersecurity hub in Dubai. Thales has been selected to provide cybersecurity for the Australian air traffic management transformation project, OneSky, which covers the world's largest airspace. It has also been chosen to provide cybersecurity for Eurocontrol, and for the Galileo programme in Europe. In France, Thales has become a major partner in the French government's cloud hybridisation projects, deploying new digital services for the Ministry of the Interior, the Ministries of Solidarity and Health, Labour, National Education and Sports, as well as ACOSS⁽¹⁾, IGN⁽²⁾ and the CNRS⁽³⁾.

In addition, Thales will be building a powerful cyber threat intelligence ecosystem under strategic partnerships with Verint, Nettitude, Sequoia and ESET. Lastly, in the automotive sector, Thales has created a joint venture with electronic systems specialist, Vector.

2.1.3.3 Land and air systems

2.1.3.3.1 General overview

Thales systems and equipment help to make the airspace safer and more secure. In commercial **air traffic control and management**, Thales's portfolio ranges from conventional navigational aids to radar and air traffic control centres, and includes surveillance systems, satellite navigation and airport management solutions.

Thales plays a key role as an architect and integrator in the future air traffic management system, particularly through the OACI's⁽⁴⁾ "Global Air Navigation Plan – Aviation System Block Upgrades" initiative. Thales is the main industrial partner of the SESAR⁽⁵⁾ project in Europe and a key player in the NextGen programme in the United States.

Across all continents, Thales offers one of the broadest lines of commercial and military **ground-based and naval radars**, on the market, for surveillance, air traffic management and fire control. 1,300 Thales radars are in service across the world and the Group equips over 70 countries with commercial radars and more than 45 countries with military radars.

In the military domain, Thales is specialised in command and control systems for air defence, and air defence radar systems in over 45 countries. As a mission systems integrator, Thales actively contributes to major international military programmes such as NATO's Air Command and Control System (ACCS), the French Army's Aerospace Operations Command and Control System (SCCOA), and the Swiss Air Force's system for airspace surveillance and air operations (FLORAKO). Thales excels in the domains of systems integration, complex programme management, real time and non-real time software, human-machine interfaces and service-oriented architecture.

Thales owns 50% of Thales Raytheon Systems, a company that specialises in Integrated Air and Ballistic Missile Defence (IAMD) Command and Control (C2) Systems. Thales Raytheon Systems AMDC2 provides NATO and the NATO member states with Integrated Air and Missile Defence (IAMD) capability as part of the Air Command and Control System (ACCS).

Thales offers a wide range of **air defence weapon systems** for medium-range (SAMP/T), short-range (Crotale and RAPIDDefender) and very short-range markets (RAPIDFire cannon and ForceSHIELD system). The Group also supplies the lightweight multi-role missile (LMM) family.

In the field of **optronics**, the combination of optical and electronic systems, Thales designs and manufactures components and systems for day and night surveillance, reconnaissance, protection, threat detection and target acquisition on all types of land, sea (surface and subsurface) or air platforms for defence and security customers worldwide. Thales's expertise in optics is also applicable to the commercial segment of high end zoom lenses for cinema and for ultra-high power scientific and industrial lasers.

Thales designs, manufactures and supports **armoured military vehicles** including the Hawkei and the Bushmaster. Thales provides integrated capability solutions at all levels of the value chain, from subsystem supplier to system integrator; mission systems design authority and prime contractor. The open architecture systems of vehicles provides highly standardised "plug and play" capability for on-board sub-systems and products, increasing vehicle capability and performance whilst reducing size, weight and operator workload and whole life system costs.

2.1.3.3.2 Competitive position

With over 40% of the world's airspace controlled by TopSky ATC, a solution developed by the Group, Thales is at the forefront of air traffic control systems and civilian radars.

Other major players in the commercial sector are the US companies Leidos and Raytheon, European companies Indra and Leonardo (Selex), and, in some niche areas, Saab, Frequentis and Harris.

In the military sector, Thales's main competitors for surface radars are the US companies Lockheed Martin, Northrop Grumman, and Raytheon, and in Europe, Leonardo, Hensoldt (formerly Airbus), BAE Systems, Indra and Saab.

Thales is one of Europe's leading suppliers of medium-range, short-range and very short-range missiles and weapon systems. Other principal players in this field in Europe (MBDA) and the United States (Raytheon and Lockheed Martin) are also major customers of Thales's missile electronics and key partners in weapon systems.

Thales is the leading European supplier of optronics. Its main competitors in this segment are suppliers from North America (Raytheon, Lockheed Martin and Flir Systems) and Israel (chiefly Elbit), as well as Safran and Hensoldt. The protected vehicles systems market segment is dominated, on an international level, by BAE Systems, General Dynamics, Rheinmetall, Krauss-Maffei Wegmann and Nexter. Thales operates in Europe as an independent integrator both for its own and other suppliers' equipment within complex mission systems.

(1) ACOSS : French central agency for social security organisations.

(2) IGN : French National Institute of Geographic and Forest Information.

(3) CNRS : French National Centre for Scientific Research.

(4) International Civil Aviation Organization.

(5) Single European Sky ATM Research.

2.1.3.3.3 Significant events in 2018

In 2018, the Air Traffic Management (ATM) business line secured a variety of contracts across its full portfolio of technologies. The OneSky contract, worth a record €777 million, is aimed at upgrading and integrating commercial and military air traffic systems in Australia and the Pacific region, which represents 11% of global traffic. Two key contracts were signed for navigation systems, Deployable ILS with the FAA in the United States, and Coflight in Portugal, after the country joined the COOPANs Alliance. Agreements were also signed with key partners regarding the integration of unmanned aircraft systems (UAS) into controlled airspace, including the agreement with the Northeast UAS Airspace Integration Research Alliance (NUAIR) in the United States. Thales is also one of five LAANC (Low Altitude Authorization and Notification Capability) accredited suppliers in the United States. The LAANC system provides automated flight authorisations to small UAS operators. In Europe, Thales is also involved in the U-Shape programme with SESAR.

The AOW (air operations and weapon systems) business line has achieved considerable commercial success with the signing of the Addendum 3 contract, which provides NATO with digital architecture for its air command and control system. Thales Raytheon Systems and Lockheed Martin have also signed an agreement to provide NATO member states with command and control (C2) capabilities adapted to territorial ballistic missile defence (BMD).

In October, the Republic of Cyprus signed a contract for a state-of-the-art air surveillance system. In the services segment, the Marha and MSIS V contracts were notified by the French army to support the SCCOA system, and the F-ADAPT service contract in the United Kingdom covers the modernisation, improvement and strengthening of the British army's air defence capabilities.

For the SRA (Surface Radars) business line in the air and ground surveillance segment, in April the Senegalese Armed Forces took delivery of a turnkey system composed of long-range Ground Master 400 radars and a SkyView command and control centre to secure and control their airspace. In the Netherlands, Thales was awarded a contract to upgrade 60 Squire radars to fulfil the country's current and future operational needs, through faster deployment and by countering new threats, such as unmanned air vehicle detection and classification. Lastly, Thales's SMART-L Multi Mission radar detected and tracked the SpaceX rocket en route to the International Space Station (ISS) more than 1,500 km away. The SMART-L MM was able to detect the rocket without being detected itself, tracking it almost until it reached the ISS.

In maritime surveillance, the first two Sea Fire radar panels were delivered to the Limours site, marking the beginning of the radar's integration and qualification phases and the start-up of its sub-assemblies. The first delivery to the DGA is expected in the summer of 2019. The Charles de Gaulle aircraft carrier will be returning to sea equipped with the SMART-S Mk2, the naval 3D multibeam radar for air-surface surveillance with a range of more than 250 km. Thales will also be delivering seven STIR-radars for installation on French Navy frigates for fire control missions. Of these seven radars, five will be deployed on the future intermediate-size frigates (FTI) and two will be installed on FREDA frigates. This fire control radar features advanced stealth target tracking capability, even in difficult environments.

In the OME (Optronics and Missile Electronics) business line, France signed a major contract for the seeker of the new generation interceptor and air combat missile, MICA NG. While in airborne optronics, France approved the TALIOS (Targeting Long-range Identification Optronic System) targeting pod and ordered new optronics capabilities under the standard F4 contract for the Rafale.

2.1.3.4 Defence mission systems

2.1.3.4.1 General overview

Thales manufactures electronic combat, intelligence, surveillance and reconnaissance systems, as well as naval surface and underwater combat systems.

For **airborne combat missions**, Thales produces, in cooperation with Dassault Aviation, radar systems and equipment for the Rafale and the Mirage 2000 fighter aircraft and for future combat unmanned aerial vehicles (UAVs), as well as electronic warfare radar systems, designed to detect threats and protect platforms.

For **intelligence, surveillance and reconnaissance missions**, Thales designs naval, ground and air patrol and surveillance solutions, including a range of electromagnetic-based information-gathering sensors. These systems – which are installed on aircraft or naval platforms – incorporate surveillance radars, acoustic sub-systems and measurement and data linking equipment. Thales also designs complete UAV systems with intelligence, surveillance, reconnaissance and target acquisition capabilities.

In **surface naval warfare**, Thales offers comprehensive combat systems that integrate on-board sensors (radar, sonar, electronic warfare, infrared sensors, etc.), weapon systems and communications and command equipment. Thales also has naval platform engineering and support capabilities.

In **underwater warfare**, Thales offers a broad range of products including submarine sonar suites, hull-mounted and towed array sonar for surface ships, anti-mine systems, including the use of unmanned underwater vehicles, as well as acoustic sensors for submarine guidance.

2.1.3.4.2 Competitive position

Thales is one of the leading European players in electronic combat systems, competing with Leonardo, SAAB and Hensoldt and US companies Raytheon, Lockheed Martin, Northrop Grumman, BAE Systems and L3/Harris.

In intelligence, surveillance and reconnaissance systems, its main competitors are Airbus, Leonardo, SAAB, Elbit, IAI, L3/Harris and General Atomics.

Thales is one of the principal European players in abovesurface systems, alongside SAAB, BAE Systems and Leonardo, and competes with Lockheed Martin in the United States and Canada.

In underwater warfare, Thales is one of Europe's main players along with Atlas Elektronik, Ultra Electronics and newcomer Elbit. In the United States, Thales's competitors are Lockheed Martin, Raytheon, Northrop Grumman and L3/Harris.

2.1.3.4.3 Significant events in 2018

Electronic combat systems

In early 2018, Qatar ordered 12 additional fighter aircraft, underscoring its strategic interest in the Rafale. In Egypt, nine of the latest Rafale aircraft were delivered to the Egyptian Air Force, taking the total number to 23. In India, major projects were completed on schedule with the first flight of the RBE2 AESA radar in July, the first flight of the SPECTRA self-protection suite with the new digital broadband receiver in September, and the first flight of the first series Rafale in Istres at the end of October. Still in India, the latest kits for upgrading the Mirage 2000 fleet were delivered to the customer.

With regard to France, the F3-R standard was approved by the DGA at the end of October. It extends the Rafale's versatility and combines the RBE2 AESA radar with the new Meteor missile. Notification of the F4 standard that same year means that innovative connectivity solutions will be developed to optimise the Rafale's effectiveness in network combat.

Officially launched in March at Dassault Aviation by France's Minister for the Armed Forces, Florence Parly, the Man-Machine Teaming advanced study programme will involve the development by Thales of new technologies based on artificial intelligence, particularly decision-making autonomy and decision support applicable to the combat aviation of the future. The timeline has been set for 2025/2030.

In services, the PBL (Performance-Based Logistics) contract for Egypt's Rafale aircraft entered into force in August. That same month, the MOREAT 2 contract (operational maintenance of Thales's aeronautical equipment in France excluding the Rafale) was notified. Thales is also involved with the new French Aeronautical Maintenance Division (DMAé) as part of its policy of verticalising service contracts by platform (predictive maintenance of equipment).

Airborne surveillance and intelligence systems

In 2018, French Armed Forces Minister Florence Parly announced the renovation of six additional ATL2 maritime patrol aircraft, as well as the launch of the "Universal Electronic Warfare Capability" (CUGE) strategic intelligence aircraft programme, for which Thales will develop new sensors that Dassault Aviation will integrate on three Falcon aircraft.

The first flight tests of the Force Multiplier, designed for sea and ground surveillance, were successfully carried out in October. This service aircraft was produced by the partnership between Canada's PAL Aerospace and Thales and is equipped with two products designed and manufactured by Thales, the SEARCHMASTER radar and the integrated mission system, AMASCOS (Airborne MARitime Situation and COntrol System), confirming Thales's position as one of the leaders in the domain.

The flight tests of the SEARCHMASTER on the Falcon 2000 for the Japan Coast Guard were completed successfully.

Multiple digital transformation projects are in development, particularly in the support and services area.

Surface naval systems

In June 2018 Thales Deutschland and its partner Atlas Elektronik were asked to provide the Tacticos combat system for five German Class K130 corvettes. The order provides for the supply of the five corvettes, along with testing and a training centre in Wilhelmshaven. The timeline is 2025.

Thales also delivered and integrated the Tacticos combat system on the new Mexican POLA corvette. In that same suite were the SMART-S Mk2 Air and Surface Surveillance Radar, the STIR 1.2 EO Mk2 Radar and EO Tracking system, the Gatekeeper Electro-optical Ship Security system, and the CAPTAS 2 Variable Depth Sonar.

Underwater warfare systems

In Australia, Thales was awarded a contract to upgrade the sonars on the country's fleet of Collins-class submarines, a programme that will run for a period of 30 years. This renewed trust strengthens the Group's credibility and positioning in the context of the SEA1000 submarine project, currently in the competitive tendering process.

In France, some major milestones were achieved with the Franco-British Maritime Mine Counter Measures (MMCM) Programme, which will deliver the market's first unmanned mine warfare system.

2.2 RESEARCH AND INNOVATION

Thales needs to be able to offer increasingly sophisticated technologies, particularly in the detection, analysis and decision-making fields, in order to design and develop critical information systems. These innovative solutions serve customers in the aeronautics, space, ground transportation, defence and security markets.

Thales bases its vision of innovation on openness and partnership across multiple dimensions:

- a technological dimension, by collaborating with academic laboratories;
- an entrepreneurial dimension, by forging closer ties with SMEs and start-ups;
- a "market" dimension, by jointly innovating with customers and their ecosystems to create new usages.

2.2.1 Research and development, the key to competitiveness and growth

Some 28,000 Thales employees, approximately 27,000 of them engineers, are involved in the Group's technical operations, ranging from research to engineering. In 2018, Thales spent €879 million (5.5% of revenues) purely on self-funded R&D, an essential lever to remain competitive.

A significant portion of the R&D budget is devoted to upstream research work, performed both in the Thales Research & Technology (TRT) laboratories and in the Group's competence centres in order to bring to maturity:

- innovations across the Group's entire technological spectrum;
- new system and product concepts;
- new engineering tools and methods for critical information systems.

2.2.2 Four key technical domains

Governance of research and development for key technologies is split into four domains:

- **hardware technologies:** electronics, electromagnetism, optronics, acoustics, radio frequency techniques and management of thermal constraints;
- **software technology:** processing computers, real-time on-board systems, distributed systems, service-oriented architectures, model-driven engineering and cybersecurity;
- **information and cognitive sciences:** Artificial Intelligence, data mining and fusion, autonomous systems, synthetic environments and human factors;
- **systems:** focused on systems design architecture, this domain provides support for methodology, processes and expertise.

FOCUS 1

Connectivity: a theatre of operations challenge

Real-time monitoring and transmission of high-speed videos between players are now the prerequisites of military operations. Thales's TMA terminal, with its latest SoC ("System on Chip") technical standards, defies all standards in terms of throughput, range, mass, volume and information security levels. Capable of transmitting data and high-resolution video over distances of several tens of kilometres, this module, weighing just a few hundred grams and integrating electronics and antenna, has already proved its success with several Group customers. Designed from the outset to equip all mobile resources in the battlefield – unmanned air vehicles, land or sea robots, aircraft, vehicles and infantrymen – and developed based on agile methodology, this exceptionally effective modem will give users the impression that communicating with thousands of theatre players in a hostile and confusing environment is as natural as using a smartphone.

2.2.3 Thales at the forefront of innovation ecosystems

Wherever it is located, Thales seeks to build partnerships within innovation ecosystems, with academic partners, design centres, innovative businesses and industrial groups for joint innovation on applications, business models and technologies.

To develop the technologies it needs, the Group relies heavily on cooperation between its research teams and the academic world. Thales Research & Technology (TRT), an international network of corporate laboratories, is responsible for building relationships with academic partners.

TRT has facilities in France, the United Kingdom, the Netherlands, Singapore and Canada. In France, the Palaiseau laboratory, located on the *École Polytechnique* campus, is embedded in the world-class science and technology complex in Saclay,

Similarly, the Singapore centre has partnered with Nanyang Technological University and with France's national research institute CNRS, in one of the few joint international research units with an industrial partner.

In France, Thales has numerous strategic partnerships, for example, with the CNRS, the CEA, *École Polytechnique*, Telecom Paris Tech, and Sorbonne University.

The most successful form of collaboration is the joint laboratory and to this end, Thales has partnered with CNRS for physics, with CEA-LETI as part of the III-V Lab (an EIG whose members are Nokia, Thales and CEA-LETI), with CEA-LIST for artificial vision and formal approaches to the development of critical software, and with Sorbonne University for artificial intelligence.

Thales is a major player in various international high-tech clusters and a founding member of the *Institut de Recherche Technologique Saint-Exupéry* technological research institute.

In the United Kingdom, Thales has direct links to several major British universities through the TRT-UK research laboratory, including strategic partnerships with the universities of Southampton and Bristol. It also has strong relationships in AI and autonomy, most notably with Digital Catapult and the Alan Turing Institute, leveraging some of the UK government's funding in this field. In the cyber domain, Thales UK has established a number of partnerships, including with the Centre for Secure Information Technologies (CSIT), based at Queen's University Belfast, and the London Office of Rapid Cybersecurity Advancement (LORCA). This gives Thales UK access to new ideas and basic cybersecurity research. In Aerospace, Thales UK is a full partner in the Digital Aviation Research and Technology Centre (DARTeC), alongside Cranfield University.

In more traditional markets, Thales remains a full member of the Defence Growth Partnership (DGP) and continues to lead the Defence Academic Pathways (DAP) to develop relationships between industry and academic research. The Group is also a member of the Rail Research Innovation Network, which provides access to cutting-edge research at the universities of Birmingham, Huddersfield and Southampton.

In Canada, the Group regularly works with research networks and institutions such as CRIAQ (*Consortium de Recherche et Innovation en Aérospatiale au Québec*), the University of Toronto, McGill University, the *École Polytechnique de Montréal*, and Laval University, with which Thales has entered into an agreement for a joint research unit in urban sciences.

FOCUS 2**Artificial intelligence in manufacturing: already a reality at Thales**

The adjustment of radio frequency filters, which are key components of telecommunications satellites, requires watch-making precision.

It is carried out by highly experienced technicians who adjust the filter response by fine-tuning the parameters to obtain the most perfect filtering function possible.

Working with a European start-up, Thales Alenia Space Spain has introduced a totally original approach to this, whereby the operator is assisted by an intelligent system. This artificial intelligence patiently learns the consequences of the multiple parameter combinations and once trained, helps the operator by analysing the filter curves in real time and advising him/her on the settings sequence.

Already operational, this "AI" saves operators 40% in tuning time.

In 2017, Thales created CortAIX, an artificial intelligence laboratory with some 50 researchers, to develop the use of AI in Thales's systems. The laboratory is located in Montreal, at the heart of one of the world's leading artificial intelligence ecosystems. The Thales CortAIX researchers are developing partnerships with MILA (the Quebec Institute of Artificial Intelligence), IVADO (Data Optimisation Institute), the INRS (National Institute of Scientific Research) and the Vector Institute in Toronto.

In emerging countries, the Group is developing its R&D activities by establishing innovation platforms locally, using the tried and tested principles of joint innovation with local players and, in so doing, building long-term, trust-based relationships.

Since 2017, Thales has further increased its involvement with start-ups. Already a founding member of Starburst, a specialised incubator in the aeronautics and space domain, Thales is also the key cybersecurity adviser to Station F, the world's largest incubator. Some 20 start-ups, more than half of them from countries other than France, have participated in the acceleration programme with Thales. Some of the start-ups are developing pilot cases with Group units.

Training also forms part of the overall strategy of linking the Group with the academic world. The Group supports more than 200 doctoral students worldwide. They work on subjects directly connected with the technical issues facing Thales, which therefore reinforces its appeal to young scientists. Thales supports six teaching chairs in subjects that are in line with its technical priorities.

FOCUS 3**The industrial IoT (Internet of Things) serving rail operations**

The London Underground network creates the equivalent of 225 days' worth of data processing for each day of operation. Thales's engineering teams have developed a unique platform for processing this under-utilised data and the results speak for themselves. This effective approach to predictive maintenance has so far saved 30% in maintenance costs, reduced downtime by 40%, and halved the number of systematic inspections.

Tried and tested by many Thales customers, the platform is an amalgam of the Group's key technologies in the domain of digital transformation – the Internet of Things and connectivity, big data analytics, artificial intelligence and cybersecurity – offering the most comprehensive service possible in a fully secure environment.

2.2.4 A dynamic approach to intellectual property management

Thales supports its R&D activities with a dynamic approach to intellectual property management.

The Group filed almost 350 new patent applications in 2018. The continued large number of patent applications in recent years reflects Thales's commitment to innovation and its ability to translate research results into competitive advantages.

The Thales portfolio, which includes more than 16,000 patents and patent applications, is regularly adapted to operational requirements, particularly to protect Thales's market share.

In 2018, Thales was once again included in the Top 100 Global Innovators ranking compiled by Clarivate Analytics (formerly Thomson Reuters Intellectual Property & Science), with the Group standing out for the volume, success and influence of its patents. This achievement underlines Thales's commitment to innovating, protecting its ideas and bringing its inventions to market. Thales has featured in this prestigious ranking six times since 2011, testimony to the importance the Group attaches to implementing an active and ambitious intellectual property management strategy.

2.3 REPORT ON OPERATIONS AND RESULTS

This section looks at the Group's financial performance in 2018. The analysis of its non-financial performance can be found in Chapter 5 (pages 102 to 145).

2.3.1 Key figures (adjusted)

(in € millions, except earnings per share and dividend in €)	2018	2017 restated for IFRS 15	2017 Reported	Total change ^(a)	Organic change ^(a)
Order intake ^(b)	16,034	14,931	14,920	+7%	+9%
Order book at end of period ^(b)	32,329	32,064	31,914	+1%	+1%
Revenues	15,855	15,228	15,795	+4.1%	+5.3%
EBIT ^(c)	1,685	1,365	1,543	+23%	+25%
<i>in % of sales</i>	<i>10.6%</i>	<i>9.0%</i>	<i>9.8%</i>	<i>+1.7 pts</i>	<i>+1.7 pts</i>
Adjusted net income, Group share ^(c)	1,178	840	982	+40%	
Adjusted net income, Group share, per share ^(c)	5.55	3.97	4.64	+40%	
Consolidated net income, Group share	982	680	822	+44%	
Free operating cash flow ^(c)	811	1,365	1,365	-554	
Net cash at end of period ^(c)	3,181	2,971	2,971	+209	
Dividend per share	2.08 ^(d)	1.75	1.75	+19%	

(a) All the "total changes" and "organique change" of this section 2.3 are calculated compared with the figures restated for the application of IFRS 15, which appear in the 2018 consolidated financial statements.

(b) As of 1 January 2018, the Group applies the IFRS 15 standard "Revenue from contracts with customers", which introduces the concept of an accounting order book ("transaction price allocated to the remaining performance obligation"). The definitions of "order book" and "order intake" have been adjusted accordingly, with no material impact within the Group.

(d) Non-GAAP financial indicators - see definitions on page 27.

(c) Proposed to the Shareholders' Meeting on 15 May 2019.

Order intake for 2018 amounted to **€16,034 million**, up **7%** from 2017 (+9% at constant scope and currency). Order momentum was particularly strong in the Defence & Security segment. At 31 December 2018, the **Group's order book** stood at **€32.3 billion**, which represents two years' worth of revenues.

Revenues totalled **€15,855 million**, up 4.1% from 2017, restated for the application of IFRS 15, and **up 5.3% at constant scope and currency** ("organic" change). Sales growth remained high, driven by strong momentum in the Transport (up +17.9% on an organic basis) and Defence & Security (up +5.6% on an organic basis) segments.

The Group posted **EBIT of €1,685 million in 2018** (10.6% of revenues), versus €1,365 million in 2017 (9.0% of revenues), an increase of **23%** versus 2017 EBIT, restated for the application of IFRS 15. All operating segments improved their EBIT margin, while increasing their investments in R&D.

As such, the Group exceeded all the financial objectives it had set for 2018: an order intake of around €15.5 billion, a mid-single digit organic sales growth of +4% to +5% compared to 2017, and an EBIT of between €1,620 million and €1,660 million, based on February 2018 scope and currency.

Adjusted net income, Group share⁽¹⁾ rose by **40%** to **€1,178 million** as a result of the strong improvement in EBIT.

Free operating cash flow⁽¹⁾ was **€811 million** versus €1,365 million in 2017. This decrease is explained by the partial reversal of one-off items which had driven working capital to a very low level at 31 December 2017.

Against this backdrop, the Board of Directors decided to propose the distribution of a **dividend of €2.08 per share**, up 19% from 2017.

(1) Non-GAAP financial indicator - see definition in section 2.3.2, "Presentation of financial information", on page 27.

2.3.2 Presentation of financial information

Accounting policies

Thales consolidated financial statements are prepared in accordance with IFRS (International Financial Reporting Standards) as approved by the European Union at 31 December 2017.

Non-GAAP financial indicators

In order to facilitate monitoring and benchmarking of its financial and operating performance, the Group presents three key non-GAAP indicators, which exclude non-operating and/or non-recurring items. They are determined as follows:

- **EBIT**, an adjusted operating indicator, corresponds to income from operations plus the share in the net income of equity-accounted companies, before the impact of entries relating to the amortisation of intangible assets acquired (purchase price allocation – PPA) recorded as part of business combinations. It also excludes other expenses booked to income from operations that are directly linked to business combinations, which are unusual by nature;
- **adjusted net income** corresponds to net income, excluding the following items and net of the corresponding tax effects:
 - amortisation of acquired intangible assets (PPA) recorded as part of business combinations,
 - expenses recognised in income from operations or in financial income⁽¹⁾ which are directly related to business combinations that are unusual by nature,
 - gains and losses on disposals of assets, changes in scope of consolidation and other,
 - impairment on non-current assets,
 - changes in the fair value of derivative foreign exchange instruments (recognised under "Other financial income and expenses" in the consolidated financial statements),

- actuarial gains (losses) on long-term benefits (recognised under "Finance costs on pensions and other long-term employee benefits" in the consolidated financial statements);

- **free operating cash flow** corresponds to the net cash flow from operating activities before contributions to reduce the pension deficit in the United Kingdom, and after deducting net operating investments.

The definitions of EBIT and adjusted net income drive the definition of other operating indicators in the **adjusted income statement**: adjusted cost of sales, adjusted gross margin (corresponding to the difference between revenues and the adjusted cost of sales), adjusted indirect costs, other adjusted financial income, finance cost on pensions and other long-term employee benefits, adjusted income tax, adjusted net income – Group share, per share, calculated as described on pages 28 and 29.

Net cash corresponds to the difference between the sum of the "cash and cash equivalents" and "current financial assets" line items and short and long-term borrowings after deduction of interest-rate hedging derivatives. Its calculation appears in Note 6.2 of the consolidated financial statements.

Organic change measures the movement in monetary indicators excluding the effects of changes in exchange rates and scope of consolidation. It is defined as the difference between (i) the indicator for the prior period, recomputed at the exchange rates applicable for the current period to entities whose reporting currency is not the euro, less the contribution of entities divested during the current period, and (ii) the value of the indicator for the current period less the contribution of entities acquired during the current period.

➤ ORGANIC CHANGE IN SALES BY QUARTER

(in € millions)	2017 sales restated for IFRS 15	Currency impact	Impact of disposals	2018 sales	Impact of acquisitions	Total change	Organic change
Q1	3,278	–94	–9	3,412	8	+4.1%	+7.2%
Q2	3,841	–53	–5	4,040	4	+5.2%	+6.7%
H1	7,118	–147	–14	7,452	12	+4.7%	+6.9%
Q3	3,117	–8	0	3,421	3	+9.7%	+9.9%
Q4	4,992	–12	–3	4,981	1	–0.2%	+0.1%
H2	8,109	–19	–3	8,403	4	+3.6%	+3.9%
Full year	15,228	–166	–18	15,855	16	+4.1%	+5.3%

Main scope effects:

Disposals: identity management activity, deconsolidated from 1 May 2017 (Defence & Security segment).

Acquisitions: consolidation of Guavus from 12 September 2017 (Defence & Security segment).

Readers are reminded that only the consolidated financial statements as at 31 December 2018 are audited by the statutory auditors, including EBIT, the calculation of which is outlined in Note 2.1 "Segment Information", net cash, the definition and calculation of which appears in Note 6.2 "Cash (net debt)" and free operating cash flow, the definition and calculation of which are specified in Note 6.4 "Changes in net cash". Adjusted financial information other than that provided in the notes to the consolidated financial statements is subject to the

verification procedures applicable to all information included in this Registration Document.

The impact of these adjustment entries on the income statements at 31 December 2018 and 31 December 2017 is shown in the tables on pages 28 and 29. The calculation of free operating cash flow is outlined on page 30.

(1) The definition of adjusted net income has been adapted to take into account expenses related to the acquisition of Gemalto recorded as financial income (€8.4 million in 2018). See Note 6.1 of the consolidated financial statements as at 31 December 2018.

➤ **ADJUSTED PROFIT AND LOSS ACCOUNT, EBIT AND ADJUSTED NET INCOME – 2018**

(in € millions, except earnings per share in €)	2018 consolidated profit and loss account	Ajustements				2018 adjusted P&L
		(1)	(2)	(3)	(4)	
Sales	15,855					15,855
Cost of sales	(11,768)	1				(11,767)
R&D expenses	(881)	2				(879)
Marketing and selling expenses	(1,098)	3				(1,095)
General and administrative expenses	(554)	2				(552)
Restructuring costs	(48)					(48)
Amort. of acquisition-related intangible assets (PPA)	(103)	103				0
Income from operations	1,403					N/A
Disposal of assets, changes in scope of consolidation and other	(73)		73			0
Impairment on non-current assets	0					0
Share in net income of equity affiliates	145	27				172
EBIT	N/A					1,685
Net financial interest	(7)					(7)
Other financial income and expenses	(78)			71		(8)
Finance costs on pensions and other long-term employee benefits	(47)				(5)	(52)
Income tax <i>Effective income tax rate^(a)</i>	(314) -26.2%	(31)	(20)	(24)	2	(387) -26.7%
Net income	1,028	107	53	46	(3)	1,232
Non-controlling interests	(46)	(7)		(0)		(53)
NET INCOME, GROUP SHARE	982	100	53	46	(3)	1,178
Average number of shares (thousands)	212,437					212,437
NET INCOME, GROUP SHARE, PER SHARE (in €)	4.62					5.55

(a) Income tax divided by net income before income tax and before share in net income of equity affiliates.

Adjustments:

- (1) Impact of acquisitions: amortisation of acquired intangible assets (PPA) recorded as part of business combinations; expenses recorded under income from operations or financial income and directly linked to these business combinations.
- (2) Disposal of assets, changes in scope of consolidation and other.
- (3) Change in fair value of foreign exchange derivatives.
- (4) Actuarial differences on long-term employee benefits.

➤ **ADJUSTED PROFIT AND LOSS ACCOUNT, EBIT AND ADJUSTED NET INCOME – 2017 RESTATED FOR IFRS 15**

(in € millions, except earnings per share in €)	2017 consolidated profit and loss account	Ajustements				2017 adjusted P&L
		(1)	(2)	(3)	(4)	
Sales	15,228					15,228
Cost of sales	(11,517)	1				(11,516)
R&D expenses	(802)	5				(797)
Marketing and selling expenses	(1,070)	5				(1,065)
General and administrative expenses	(550)	7				(542)
Restructuring costs	(81)					(81)
Amort. of acquisition-related intangible assets (PPA)	(113)	113				0
Income from operations	1,096					N/A
Disposal of assets, changes in scope of consolidation and other	(82)		82			0
Impairment on non-current assets	0					0
Share in net income of equity affiliates	120	19				139
EBIT	N/A					1,365
Net financial interest	5					5
Other financial income and expenses	(99)			70		(29)
Finance costs on pensions and other long-term employee benefits	(66)				3	(63)
Income tax <i>Effective income tax rate^(a)</i>	(237) -27.7%	(85)	(29)	(24)	(1)	(375) -33.0%
Net income	737	65	53	46	2	903
Non-controlling interests	(58)	(5)		(1)		(63)
NET INCOME, GROUP SHARE	680	60	53	46	2	840
Average number of shares (thousands)	211,661					211,661
NET INCOME, GROUP SHARE, PER SHARE (in €)	3.21					3.97

(a) Income tax divided by net income before income tax and before share in net income of equity affiliates.

Adjustments:

- (1) Impact of acquisitions: amortisation of acquired intangible assets (PPA) recorded as part of business combinations; expenses recorded under income from operations or financial income and directly linked to these business combinations.
- (2) Disposal of assets, changes in scope of consolidation and other.
- (3) Change in fair value of foreign exchange derivatives.
- (4) Actuarial differences on long-term employee benefits.

➤ CALCULATION OF FREE OPERATING CASH FLOW

(in € millions)	2018	2017 restated for IFRS 15	Change
Operating cash flow before interest and tax	1,932	1,596	+336
Change in working capital requirement and reserves for contingencies	(519)	403	-921
Pension expense, excluding contributions related to the reduction of the UK pension deficit	(129)	(121)	-8
Net financial interest received (paid)	(2)	8	-10
Income tax paid	(91)	(91)	-1
Net operating investments	(380)	(431)	+50
Free operating cash flow	811	1,365	-554
Net balance of disposals (acquisitions) of subsidiaries and affiliates	(61)	(80)	+18
Contributions related to the reduction of the UK pension deficit	(98)	(82)	-16
Dividends paid	(382)	(349)	-33
Changes in exchange rates and other	(60)	(248)	+188
Change in net cash (debt)	209	606	-397
Net cash (debt) at start of period	2,971	2,366	
Change in net cash (debt)	209	606	
NET CASH (DEBT) AT END OF PERIOD	3,181	2,971	

2.3.3 Order intake

2018 **order intake** amounted to **€16,034 million, up 7%** on 2017 (+9% at constant scope and currency⁽¹⁾). The ratio of order intake to revenue ("book-to-bill") was **1.01** compared to 0.98 in 2017.

(in € millions)	2018	2017 restated for IFRS 15	2017 reported	Total change	Organic change
Aerospace	5,346	5,237	5,200	+2%	+3%
Transport	1,858	1,781	1,780	+4%	+6%
Defence & Security	8,775	7,857	7,883	+12%	+13%
Total – operating segments	15,979	14,875	14,863	+7%	+9%
Other	55	57	57		
TOTAL	16,034	14,931	14,920	+7%	+9%
Of which mature markets ^(a)	12,797	10,722	10,824	+19%	+21%
Of which emerging markets ^(a)	3,237	4,210	4,095	-23%	-22%

(a) Mature markets: Europe, North America, Australia, New Zealand. Emerging markets: all other countries. See table on page 31.

Thales received **19 large orders with a unit value of over €100 million**, representing a total amount of **€4,593 million**:

- 3 large orders recorded in Q1 2018, covering the modernisation of air traffic control in Australia (OneSKY project), the supply of systems on board the 12 additional Rafale combat aircraft ordered by Qatar, and the renovation of signalling systems on one of the main railways in Poland;
- 3 large orders recorded in Q2 2018, covering the design of a new-generation very high throughput satellite for Eutelsat (Konnect VHTS), the supply to the German Navy, in a consortium with Atlas Elektronik, of the combat management system (CMS) for 5 K130 corvettes, and the modernisation of sonar systems equipping the Australian Royal Navy's Collins class submarines;
- 4 large orders recorded in Q3 2018, linked to the projects "Meteosat Third Generation" (meteorological observation satellites), Connect (London metro radio network), CONTACT (military software radios in France) and Adapt (service contract for the British Army);

(1) Taking into account a negative exchange rate effect of €175 million and a net negative scope effect of €18 million, mainly linked to the consolidation of the company Guavus as at 12 September 2017 (Defence & Security segment) and to the disposal of the identity management business during Q2 2017 (same segment).

- 9 large orders booked in Q4 2018:
 - a new framework agreement to improve the mission segment of the Galileo satellite navigation system,
 - the development, through a consortium, of 4 radar observation satellites for South Korea,
 - the creation of different systems for the future metro lines of the Grand Paris Express,
 - signalling systems for the extension of a major railway line in an emerging country,
 - a contract related to the development by MBDA of the new Mica NG missile for the French Army,
 - 2 contracts for the modernisation of the French Army's telecommunication systems,
 - the development contract for the new Rafale standard F4 for the French Army, including new sensors and communication systems,
 - the development of a new state-of-the-art defence system for the future frigates of the Royal Netherlands Navy.

At **€11,441 million**, orders of less than **€100 million per unit** were down 5% on 2017, with the Group having recorded fewer orders with a unit value of between €10 and 100 million. Orders for less than €10 million remained stable compared to 2017, with the growth in Q4 fully absorbing the delay observed in the first part of the year.

At **€5,346 million** compared to €5,237 million in 2017, order intake in the **Aerospace** segment was up 2%. This slight increase is explained by opposing trends: order intake in the avionics and In-Flight Entertainment (IFE) businesses was down, having benefited in 2017 from the booking of two large orders in these domains. As expected, order intake in the Space business showed clear signs of recovery following a weak 2017, benefiting from various successes with large institutional clients.

At **€1,858 million**, order intake in the **Transport** segment remained buoyant, up 4% on 2017. This segment benefited in particular from various large contracts in signalling for major lines.

Order intake in the **Defence & Security** segment was **€8,775 million** compared to €7,857 million in 2017 (+12%), benefiting mainly from good momentum in equipment for ships, fighter aircraft, air control, military communication networks and cyber security. For the first time, the order book for this segment exceeded €20 billion, representing 2.5 years' worth of sales, and boosting the visibility of the business in the years to come.

➤ ORDER INTAKE BY DESTINATION – 2018

(in € millions)	2018	2017 restated for IFRS 15	2017 reported	Total change	Organic change	2018 weighting in %
France	5,183	4,443	4,503	+17%	+17%	32%
United Kingdom	746	1,153	1,153	-35%	-35%	5%
Rest of Europe	3,872	2,919	2,919	+33%	+33%	24%
Sub-total Europe	9,802	8,515	8,574	+15%	+16%	61%
United States and Canada	1,501	1,536	1,579	-2%	+1%	9%
Australia and New Zealand	1,494	671	671	+123%	+138%	9%
Total mature markets	12,797	10,722	10,824	+19%	+21%	80%
Asia	1,764	2,168	2,097	-19%	-17%	11%
Near and Middle East	952	1,218	1,206	-22%	-21%	6%
Rest of the world	521	824	792	-37%	-35%	3%
Total emerging markets	3,237	4,210	4,095	-23%	-22%	20%
TOTAL ALL MARKETS	16,034	14,931	14,920	+7%	+9%	100%

From a geographical perspective, order intake in the emerging markets, which had benefited from 7 large orders the previous year versus only 3 this year, was down 23% to €3,237 million. Meanwhile, order

intake in the mature markets rose significantly (+19% to €12,797 million), driven by the increase in defence budgets in many countries.

2.3.4 Sales

(in € millions)	2018	2017 restated for IFRS 15	2017 reported	Total change	Organic change
Aerospace	5,780	5,747	5,985	+0.6%	+1.4%
Transport	2,001	1,723	1,761	+16.1%	+17.9%
Defence & Security	8,020	7,690	7,983	+4.3%	+5.6%
Total – operating segments	15,800	15,160	15,729	+4.2%	+5.4%
Other	55	67	66		
TOTAL	15,855	15,228	15,795	+4.1%	+5.3%
Of which mature markets ^(a)	10,960	10,570	10,913	+3.7%	+4.7%
Of which emerging markets ^(a)	4,894	4,657	4,882	+5.1%	+6.5%

(a) Mature markets: Europe, North America, Australia, New Zealand. Emerging markets: all other countries. See table on page 32.

2018 sales amounted to €15,855 million, compared to €15,228 million in 2017, up 4.1%. The organic change (at constant scope and currency) came in at +5.3%, driven by strong momentum in the Transport and Defence & Security segments.

In the **Aerospace** segment, sales totalled €5,780 million, up 0.6% compared to 2017 (up +1.4% at constant scope and currency). This limited growth reflects the slowdown of the commercial telecom satellite market, along with a high basis of comparison in In-Flight Entertainment, partly offset by good momentum in the aeronautical businesses. The drop in sales in Q4 is not an indication of this business' momentum; it reflects the phasing effects between Q3 and Q4 (organic change as at Q3: +8.8%; as at Q4: -2.9%).

In the **Transport** segment, sales totalled €2,001 million, up 16.1% compared to 2017 (up +17.9% at constant scope and currency). The segment benefited from the ramp-up of the large urban rail signalling contracts signed in 2015 and 2016, combined with an upturn in mainline activity.

Sales in the **Defence & Security** segment were €8,020 million, up 4.3% compared to 2017 (up +5.6% at constant scope and currency). Many different businesses contributed to this momentum: surface radars, optronics, systems for fighter aircraft, systems and services for military ships, military radiocommunications, cybersecurity, etc.

As expected, sales in the Defence & Security segment remained stable in Q4 (-0.5% on a reported basis, +0.0% at constant scope and currency), affected by a very high basis of comparison (growth as at Q4 2017: +22.1% at constant scope and currency).

➤ SALES BY DESTINATION – 2018

(in € millions)	2018	2017 restated for IFRS 15	2017 reported	Total change	Organic change	2018 weighting in %
France	3,985	3,700	3,840	+7.7%	+7.9%	25%
United Kingdom	1,253	1,327	1,352	-5.5%	-4.6%	8%
Rest of Europe	3,498	3,313	3,387	+5.6%	+5.9%	22%
Sub-total Europe	8,736	8,340	8,579	+4.7%	+5.1%	55%
United States and Canada	1,367	1,392	1,460	-1.8%	-0.1%	9%
Australia and New Zealand	858	838	875	+2.3%	+9.2%	5%
Total mature markets	10,960	10,570	10,913	+3.7%	+4.7%	69%
Asia	2,297	2,156	2,219	+6.5%	+7.7%	14%
Near and Middle East	1,647	1,569	1,641	+4.9%	+6.2%	10%
Rest of the world	950	932	1,022	+2.0%	+4.2%	6%
Total emerging markets	4,894	4,657	4,882	+5.1%	+6.5%	31%
TOTAL ALL MARKETS	15,855	15,228	15,795	+4.1%	+5.3%	100%

From a geographical perspective, this performance reflected solid growth in both emerging (up +6.5% at constant scope and currency) and mature markets (up +4.7% at constant scope and currency). As a result, in 5 years, the Group's sales in emerging markets have increased by more than €2 billion, from €2.9 billion in 2013 to €4.9 billion in 2018 (+70%).

2.3.5 Adjusted results

EBIT

In 2018, consolidated EBIT⁽¹⁾ was €1,685 million, or 10.6% of sales, compared to €1,365 million (9.0% of revenues) for the same period in 2017.

(in € millions)	2018	2017 restated for IFRS 15	2017 reported	Total change	Organic change
Aerospace	580	567	601	+2%	+3%
<i>In % of sales</i>	<i>10.0%</i>	<i>9.9%</i>	<i>10.0%</i>	<i>+0.2 pts</i>	<i>+0.2 pts</i>
Transport	88	57	72	+56%	+57%
<i>In % of sales</i>	<i>4.4%</i>	<i>3.3%</i>	<i>4.1%</i>	<i>+1.1 pts</i>	<i>+1.1 pts</i>
Defence & Security	1,007	757	869	+33%	+35%
<i>In % of sales</i>	<i>12.6%</i>	<i>9.8%</i>	<i>10.9%</i>	<i>+2.7 pts</i>	<i>+2.8 pts</i>
Total – operating segments	1,675	1,380	1,542	+22%	+23%
<i>In % of sales</i>	<i>10.6%</i>	<i>9.1%</i>	<i>9.8%</i>	<i>+1.5 pts</i>	<i>+1.5 pts</i>
Other – excluding Naval Group	(53)	(48)	(47)		
Total – excluding Naval Group	1,623	1,333	1,495	+22%	+23%
<i>In % of sales</i>	<i>10.2%</i>	<i>8.8%</i>	<i>9.5%</i>	<i>+1.5 pts</i>	<i>+1.5 pts</i>
Naval Group (35% share)	63	33	48	+91%	+91%
TOTAL	1,685	1,365	1,543	+23%	+25%
<i>In % of sales</i>	<i>10.6%</i>	<i>9.0%</i>	<i>9.8%</i>	<i>+1.7 pts</i>	<i>+1.7 pts</i>

The **Aerospace** segment posted EBIT of €580 million (10.0% of sales), versus €567 million (9.9% of sales) in 2017. The segment's margin rose slightly, with competitiveness initiatives and lower restructuring costs offsetting the rise in R&D expenditure, particularly in the space segment.

EBIT for the **Transport** segment continued to show signs of recovery, at €88 million (4.4% of sales), compared to €57 million (3.3% of sales) in 2017. The delivery of old contracts with low or zero margins continued as planned. The improvement in this segment's margin is expected to be impacted in 2019 by the recording of a restructuring provision related to the implementation of an ambitious engineering transformation plan.

The EBIT of the **Defence & Security** segment markedly improved to REACh €1,007 million, compared to €757 million in 2017 (+33%). This segment's margin was 12.6% compared to 9.8% in 2017 following restatement for IFRS 15, and 10.9% in 2017 on a reported basis. Besides the non-recurrence of the negative effect linked to the application of IFRS 15, this significant improvement is explained by the strong order momentum, the impact of competitiveness initiatives, the high quality of project implementation and an exceptional provision reversal of €20 million following the resolution of two commercial disputes, with these factors largely offsetting the significant increase in expenditure on R&D.

The contribution of **Naval Group** to EBIT was €63 million in 2018, compared to €33 million in 2017, benefiting in particular from the increase in its sales (+13%), its competitiveness initiatives, and the non-recurrence of the negative effect linked to the application of IFRS 15.

At –€7 million in 2018 compared to €5 million in 2017, the amount of **net financial interest** remained very low. **Other adjusted financial results (expense)**⁽¹⁾ amounted to a net expense of –€8 million in 2018, compared to a net expense of –€29 million in 2017, primarily due to the recovery in adjusted foreign exchange performance. **Adjusted financial costs on pensions and other long-term employee benefits**⁽¹⁾ improved (€52 million compared to €63 million in 2017), benefiting in particular from the decrease in net liability and the discount rate in the United Kingdom.

Adjusted net income, Group share⁽¹⁾ amounted to €1,178 million, compared to €840 million in 2017, after an adjusted income tax⁽¹⁾ of €387 million compared to €375 million in 2017. At 26.7%, the effective tax rate was up slightly on 2017 excluding one-off items⁽²⁾ (26.2% – 33.0% including these one-off items).

Adjusted net income, Group share, per share⁽¹⁾ came out at €5.55, up 40% on 2017 (€3.97).

(1) Non-GAAP financial indicator, see definition on page 27.

(2) In 2017, the tax expense included 3 non-cash one-off items, linked to changes in the tax rules in France and the United States, for a sum of €77 million on the 2017 income statement adjusted for restatement of the impact of IFRS 15.

2.3.6 Consolidated results

Income from operations

Income from operations amounted to **€1,403 million** versus €1,096 million in 2017, an increase of 28%. This increase reflects the improvement in gross margin and good control of indirect costs. Administrative expenses increased by 1% from 2017 to 2018.

Income of operating activities after share in net income of equity affiliates

Income of operating activities after share in net income of equity affiliates amounted to **€1,475 million** versus €1,134 million in 2017,

an increase of 30%. It includes a share in net income of equity affiliates of €145 million, up 21%, primarily due to the increased contribution from Naval Group.

Net income, Group share

Consolidated net income, Group share was **€982 million**, up 44%, thanks to the strong improvement in income from operations (+€307 million).

2.3.7 Financial position at 31 December 2018

In 2018, **free operating cash flow**⁽¹⁾ amounted to **€811 million** compared to €1,365 million in 2017. This decrease is explained by the partial reversal of one-off items which had driven working capital to a very low level at 31 December 2017.

At 31 December 2018, **net cash** totalled **€3,181 million** compared to €2,971 million at 31 December 2017, after the distribution of €382 million in dividends (€349 million in 2017) and a net disbursement of €61 million in connection with acquisitions and disposals completed during the year, corresponding in particular to an additional

stake acquired by Thales Alenia Space in the US company Spaceflight Industries, as part of the "BlackSky" constellation project.

Shareholders' equity, Group share totalled **€5,700 million**, compared to €4,922 million as at 31 December 2017, with consolidated net income, Group share (€982 million) and the decrease in the net liability of pensions (€287 million net of tax) largely offsetting the distribution of dividends (€382 million) and the decrease in the value of currency hedges (€88 million net of tax).

2.3.8 Proposed dividend

At the Annual General Meeting on 15 May 2019, the Board of Directors will propose to shareholders the distribution of a **dividend** of **€2.08** per share, an increase of 19% on 2017, corresponding to an adjusted net income per share pay-out ratio of 38%, stable compared to 2017.

If approved, the ex-dividend date will be 21 May 2019 and the payment date will be 23 May 2019. The dividend will be paid fully in cash and will amount to €1.58 per share, after deducting the interim dividend of €0.50 per share paid in December 2018.

2.3.9 Outlook for 2019

The outlook described below does not take into account the acquisition of Gemalto, nor the ongoing disposal of the GP HSM business. The Group may need to update it depending on the effective closing date of these 2 transactions.

Since 1 January 2019, the Group has been applying the IFRS 16 "Leases" standard. Based on the current assessment, this standard is expected to have no material impact on Group EBIT.

In 2019, Thales should continue to benefit from positive trends in the majority of its markets, combined with its unique positioning in digital solutions. In this context, **order intake** is expected to be around **€16 billion**.

Sales are expected to continue showing solid momentum and achieve **organic growth of 3% to 4%** compared to 2018, incorporating the normalisation of growth in the Transport segment after an exceptional performance in 2018.

As announced during the June 2018 Capital Markets Day, the Group will continue to step up its R&D investments, specifically targeting digital

technologies. Self-funded R&D expenses are therefore expected to grow slightly faster than sales.

The growth in sales, combined with the impact of the Ambition 10 strategy on competitiveness and differentiation of products and services, should result in Thales delivering an **EBIT** of between €1,780 million and €1,800 million (based on February 2019 scope and currency), representing an increase of 6% to 7% compared to 2018.

Over the 2018-2021 period, and based on February 2019 scope, Thales has set the following medium-term targets:

- an **organic sales growth**⁽²⁾ of +3% to +5% on average over the 2018-2021 period, with each operating segment expected to outperform its market.
- an **EBIT margin** of 11% to 11.5% by 2021, resulting from a 200 to 240 basis point improvement⁽³⁾ related to competitiveness initiatives, partly reinvested in self-funded R&D, representing approximately 50 to 100 basis points⁽³⁾.

(1) Non-GAAP financial indicator. See definition on page 27.

(2) Compared to 2017 pro forma IFRS 15 sales.

(3) Compared to the EBIT margin (9.8%) and the level of self-funded R&D (5.0%) on the reported 2017 income statement.

2.4 INVESTMENTS

Targeted investment in R&D, property, plant and equipment, and acquisitions are all major factors in driving forward the Group's development strategy.

2.4.1 Investments in R&D

Research and development is one of the Group's core activities and key to its differentiation and competitiveness. It involves almost 40% of the Group's workforce. A description of the main R&D areas can be found in section 2.2.2, page 24.

The vast majority of R&D investment is recorded directly as expenses in the Group's income statement. As described in Note 4.2 to the consolidated financial statements, the Group capitalised €15.6 million in development costs in 2018 and, as at 31 December 2018, the net carrying amount of capitalised fixed-asset development costs only amounted to just €30.8 million.

A significant portion of R&D investment is carried out as part of contracts with customers, particularly institutional space and military contracts. Only self-funded R&D expenditure is recorded separately in the income statement. It has been stepped up over the last three years to support the Group's Ambition 10 strategic plan. In 2018, it stood at €879 million, up 20% compared to 2016.

(in € millions)	2016	2017	2017 restated for IFRS 15	2018
Sales	14,885	15,795	15,228	15,855
R&D expenses shown on the IFRS income statement	736	802	802	881
Expenses excluded from the adjusted income statement	-6	-5	-5	-2
R&D expenses shown on the adjusted income statement	731	797	797	879
<i>As a % of sales</i>	<i>4.9%</i>	<i>5.0%</i>	<i>5.2%</i>	<i>5.5%</i>

Self-funded R&D expenditure growth is focused for the most part on the development of cross-functional digital expertise (cybersecurity, artificial intelligence, big data analytics, digital factory implementation) and the design of "dream" products – new, highly innovative products with major market potential. In 2018, these initiatives were primarily directed towards the Aerospace operating segment, with the development of

innovations in avionics (interactive avionics suite, connected onboard IFE) and space platforms (Spacebus Neo, Flexsat).

In the coming years, the Group expects its self-funded R&D expenditure to continue to rise, reaching between 5.5% and 6.0% of sales by 2021.

2.4.2 Operating investments

The Group's operating investments cover three main categories: technical and production investments, building investments and investments in information systems.

(in € millions)	2016	2017	2017 restated for IFRS 15	2018
Sales	14,885	15,795	15,228	15,855
Payments for acquisitions of intangible assets and property, plant and equipment	480	439	439	393
Proceeds from disposal of intangible assets and property, plant and equipment	-8	-8	-8	-13
Net operating investment	472	431	431	380
<i>As a % of sales</i>	<i>3.2%</i>	<i>2.7%</i>	<i>2.8%</i>	<i>2.4%</i>

The decrease in investments between 2016, 2017 and 2018 was largely due to the reduction in building investments, particularly with the completion and subsequent opening of a major building project in Bordeaux in October 2016, and greater project selectivity.

2.4.3 Acquisitions and equity investments

To support the Ambition 10 strategic plan, the Group is continuing its targeted acquisitions policy to strengthen its technology portfolio and boost its potential for growth.

(in € millions)	2016	2017	2018	Total 2016-2018
Investments in subsidiaries and affiliates, net	391	121	72	584
Disposals of subsidiaries and affiliates, net	-297	-42	-11	-349
Net balance of acquisitions and disposals	94	80	61	235

Acquisitions in 2016

In March 2016, the Group finalised the acquisition of Vormetric, one of the leading providers of data protection solutions, for €372 million, significantly strengthening its cybersecurity portfolio.

In July 2016, Thales Alenia Space acquired the RUAG Group's opto-electronics business line, which specialises in scientific satellite instruments and equipment for optical communications in space.

Additionally, in December 2016, the Group finalised the acquisition of Aviovision, a start-up specialising in digital applications for air operations ("Electronic Flight Bag").

These investments were partly offset by the cash inflow related to the change in the scope of the Thales Raytheon Systems joint venture (€81 million) and by the cash received from the sale of the Group's stake in Hanwha Thales (€204 million).

Acquisitions in 2017

In 2017, the main investment recorded was the net cash outflow of €91 million incurred when finalising the acquisition of Guavus, one of the pioneers in real-time "big data" analytics.

At the same time, the Group received the proceeds from the disposal of its identity management business, which was finalised in May 2017.

Acquisitions in 2018

In 2018, the Group's key investments related to:

- the acquisition of Cubris, a leader in Driver Advisory Systems (DAS) for main line trains, a key technology for future autonomous trains;
- Thales Alenia Space's stake in the US company Spaceflight Industries as part of the "BlackSky" satellite constellation project using big data analytics technology.

On 17 December 2017, Thales and Gemalto announced the signing of a merger agreement including an all-cash offer for all issued and outstanding ordinary shares of Gemalto, for a price of €51 per share cum dividend. The equity value was approximately €4.8 billion. This major acquisition was finalised in March 2019. More details can be found in section 2.5.

At the same time, to comply with the demands of several competition authorities, Thales announced in February 2019 that it had signed a definitive agreement to sell its global GP HSM (General Purpose Hardware Security Modules) business.

The Group continues to seek targeted acquisitions, to complement its digital strategy in particular it targets the strengthening of its expertise in the four digital technologies identified as key in the Group's main business areas – connectivity, artificial intelligence, big data analytics and cybersecurity.

(1) Valuing the equity capital of Gemalto at approximately €4.8 billion.

2.5 ACQUISITION OF GEMALTO

Strategic rationale

On 17 December 2017, Thales and Gemalto (Euronext Amsterdam and Paris: GTO) announced the signing of a merger agreement including an all-cash tender offer for all issued and outstanding ordinary shares of Gemalto, for a price of €51 per share cum dividend, valuing the equity capital of Gemalto at approximately €4.8 billion. This offer was unanimously recommended by Gemalto's Board of Directors and unanimously approved by Thales's Board of Directors.

This project represents a major boost for Thales's digital strategy, which has been launched since 2015.

By combining the digital assets of Thales and Gemalto, this merger creates a major player, a world leader in digital security and cybersecurity, based on a portfolio of solutions including security software, expertise in biometrics, multi-factor authentication and the issuance of secure physical and digital credentials. These technologies, which combine diverse and constantly evolving use cases, are expected to yield significant commercial opportunities and revenue synergies in the years ahead.

This new business will account for approximately 20% of Group's pro forma sales, ranking it among the top global players in the fast-growing digital security market with €3.5 billion in sales.

By integrating Gemalto's expertise in object identification and security, Thales is also bolstering its distinctive positioning on its five major markets and becomes the only player in the world able to offer comprehensive solutions for securing critical decision-making chains all the way through from data generation by sensors to real-time decision making.

The combined group will employ more than 28,000 engineers and 3,000 researchers, and will invest more than €1 billion in self-funded R&D.

Offer execution and preparation for integration

Since the announcement of this project, teams from Thales and Gemalto carried out two workstreams in parallel: executing the transaction and preparing for Gemalto's integration into Thales.

In early 2018, transaction financing was secured through a €1.5 billion bond issue.

At the end of March 2018, the offer document containing the terms and conditions and consequences of the offer was approved by the Dutch Financial Markets Authority (AFM) and published, thus opening the offer to Gemalto shareholders.

Between March 2018 and March 2019, Thales and Gemalto obtained 12 of the 14 required regulatory approvals. On 14 March 2019, Thales decided to waive the Offer Condition with respect to the 2 remaining regulatory authorizations not yet obtained in Russia, and set to 28 March 2019 the closing date of the acceptance period of its offer for Gemalto. Upon expiration of this acceptance period, more than 85% of Gemalto shares had been tendered, making the offer unconditional.

In accordance with Dutch regulations, the Offer has been reopened to allow shareholders who had not tendered their shares during the initial acceptance period to do so. The post-closing acceptance period will last until 15 April 2019. Afterwards, provided Thales holds at least 95% of the issued and outstanding share capital of Gemalto, Thales intends to commence a compulsory acquisition procedure and a delisting procedure, as well as all appropriate restructuring actions in order to facilitate the generation of synergies.

At the same time, detailed plans have been prepared for the integration process, structured by a dedicated project management office, with a view to maximizing synergies as soon as the acquisition is finalized. Several hundred people were involved in both Groups to prepare this integration.

In order to comply with the requirements of certain competition authorities, Thales signed in February 2019 a definitive agreement to sell its global general purpose hardware security modules (GP HSM) business to Entrust Datacard. The closing of this sale is subject to the approval of Entrust as a suitable purchaser by several regulatory authorities, and the satisfaction of customary closing conditions.

Financial targets

Gemalto is consolidated since 1 April 2019 in Thales's financial statements. The Group contemplates creating a new operating segment named "Digital identity and Security" bringing together Gemalto businesses and some of Thales's digital assets.

Thales estimates that when fully up and running, the merger will generate annual pre-tax cost synergies of between €100 million and €150 million by 2021, as well as significant revenue synergies.

The transaction will also generate an increase in adjusted EPS of between 15% and 20% from year one, before taking synergies into account.

The acquisition's return on capital employed (including synergies) is expected to exceed Thales' cost of capital within three years following the closing of the acquisition.

More information on Gemalto business can be found in its 2018 annual report.

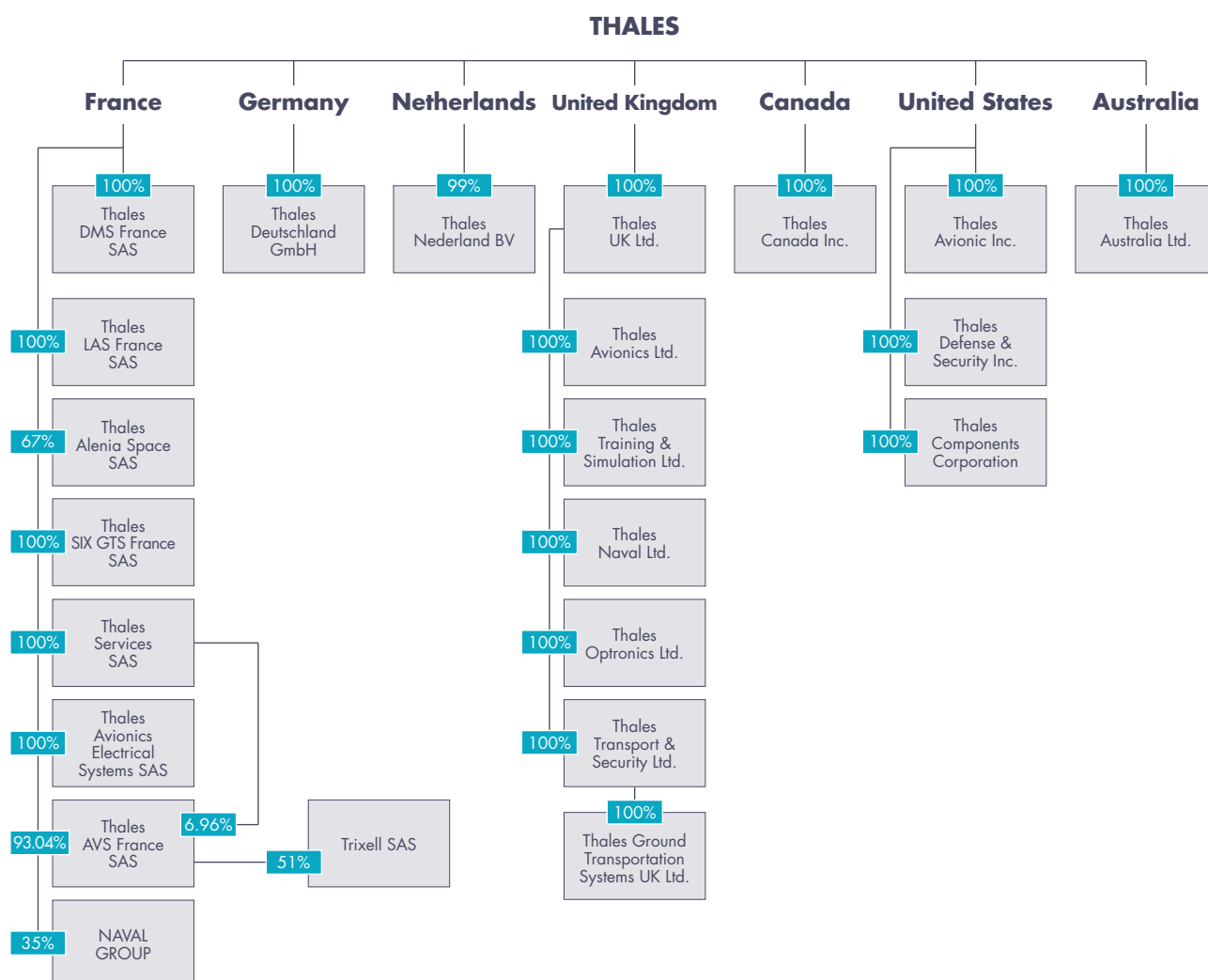
2.6 GROUP STRUCTURE

2.6.1 Relations between Thales and its subsidiaries

2.6.1.1 Simplified organisational chart at 31 December 2018

This simplified organisational chart includes fully consolidated companies that account for more than 0.5% of consolidated sales, in the main countries in which the Group operates.

The companies consolidated under the equity method are not included in this chart (with the exception of NAVAL GROUP).



2.6.1.2 Role of Thales (parent company) within the Group

Thales (parent company) acts as a holding company for the Group:

- it holds shares in the Group's major subsidiaries;
- it manages central functions such as Group strategy, trading policy, legal and financial policy, operational monitoring, human resources policy and communications;
- it provides subsidiaries with specialist assistance, including legal, tax and financial expertise, for which the subsidiaries pay a fee;
- it provides financing, cash pooling and, where necessary, guarantees.

In addition to these functions, Thales (parent company) conducts its own research, described on page 23 *et seq.*

A list of the main consolidated companies can be found below.

2.6.1.3 Financial flows between Thales (parent company) and its subsidiaries

Thales (parent company) receives dividends from its subsidiaries, as approved by their respective Annual General Meetings, and in accordance with the applicable legislation and regulations in their countries of operation.

In addition to these dividends and the payment of fees for shared services, the main financial flows between Thales (parent company) and its subsidiaries relate to cash pooling.

As a rule, the cash surpluses of subsidiaries are transferred to the parent company under a centralisation system known as cash pooling. In return, Thales (parent company) meets the cash flow requirements of the subsidiaries. The parent company conducts operations in financial markets to arrange the necessary investments and loans, in the context of cash pooling, to meet its own requirements and those of its subsidiaries. Except in special cases, this system applies to all subsidiaries in which Thales has majority control.

2.6.2 Information about major operational subsidiaries and manufacturing sites

2.6.2.1 List of main consolidated companies

A list of the main consolidated companies can be found in Note 15, page 221 Group's consolidated financial statements.

2.6.2.2 Major manufacturing sites

At end-2018, there were 15 sites employing more than 1,000 staff.

At 31 December 2018	Headcount	Owned	Size (m²)
France			
Bordeaux (South-west)	2,383	Mérignac	60,000
Brest (Brittany)	1,421	Leased	56,000
Cannes (Provence)	2,006	Owned-leased	84,000
Cholet (Pays de la Loire)	1,537	Leased	53,000
Gennevilliers (Île-de-France)	3,522	Leased	90,000
Élancourt (Île-de-France)	3,634	Leased	104,000
Massy (Île-de-France)	1,131	Leased	26,000
Rungis (Île-de-France)	1,054	Leased	23,000
Toulouse (South-west)	4,411	Owned-leased	142,000
Vélizy (Île-de-France)	3,570	Leased	125,000
United Kingdom			
Crawley	1,660	Leased	26,130
Netherlands			
Hengelo	1,389	Owned	87,000
Australia			
Sydney	1,314	Leased	84,327
Germany			
Stuttgart	1,538	Leased	59,000
United States			
Irvine	974	Leased	30,440

RISK FACTORS, INTERNAL CONTROL AND RISK MANAGEMENT



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The Group supplies complex systems, products and equipment, which by their nature are often critically important to its government or corporate customers worldwide.

It has to address three major categories of risks: operational and strategic risks, legal and regulatory risks, and financial risks.

This section also includes a description of the risks adopted for the Group's Non-Financial Performance Statement prepared pursuant to Article R. 225-105 I° of the French Commercial Code. These risks are formally identified by the acronym "NFPS" and the management procedures and risks are described in the Corporate Social Responsibility and Non-Financial Performance Report reviewed by the Strategic & Social and Environmental Responsibility Committee (see section 5).

Thales is exposed to various different risks and uncertainties which could affect its business, reputation, profitability or ability to achieve its financial objectives. To address these risks and uncertainties, the Group:

- is committed to identifying sources of risks as early as possible in an effort to better control the consequences of those risks;
- relies on a proactive and coherent system of risk identification and management covering all of its functions, and performs an annual mapping of the risks to which it is exposed.

The Group's risk management is consistent with the framework recommended by the AMF; it is a Thales management lever which helps to:

- **Create and preserve the value, assets and reputation of the Group**

Risk management identifies and analyses the main threats and potential opportunities to which the Group is exposed. By anticipating the potential impact of these risks, it is intended to more effectively preserve the value, assets and reputation of the Group.

- **Secure the Group's decision-making and processes to help it achieve its objectives**

Risk analysis is designed to identify the principal events and situations which could significantly impact the achievement of the Group's objectives. Controlling such risks helps to achieve those objectives.

Risk management is integral to the Group's decision-making and operational processes. It is one of the tools for steering and assisting in decision-making. It gives executives an objective and comprehensive vision of potential threats and opportunities to which the Group is exposed, enabling them to take measured and considered risks and guiding them in their decisions on the allocation of human and financial resources.

- **Promote the consistency of action with the values of the Group**

The Group's approach to risk management is consistent with its values, particularly with regard to the strict compliance of its business activities with national and international rules and legislation.

- **Involve the Group's employees in a shared vision of the main risks and make them aware of the risks inherent in their work**

Thales applies its corporate risk management and internal control approach in the companies which it controls and which are fully consolidated. The Group's insurance policy (see section 3.4.1 b), which is centralised, covers the same scope.

These internal control and risk management processes contribute to the achievement of the Group's objectives without providing an absolute guarantee because of the limitations inherent in any system, such as the need to take into account the cost/benefit ratio leading to acceptance of a certain level of risk, and due to external uncertainties beyond the Group's control.

This section sets out what Thales considers to be the main risks. It was prepared on the basis of the conclusions from the risk management, internal control and internal audit work carried out by the Group in 2018. The results of this work were reviewed at the various meetings of the Risk Assessment Committee and the Risk Management Committee (see section 3.4.2) during the year, and also at meetings of the Audit and Accounts Committee held in 2018.

3.1 OPERATIONAL AND STRATEGIC RISKS

3.1.1 Risks related to bids and projects

Risk identified

Monitoring and management of the risk

3.1.1 a) Control of bids and project implementation

A significant proportion of Thales's business takes the form of long-term projects which are won in what is sometimes a highly competitive process.

These projects:

- can be highly complex in terms of technology;
- must meet operational, regulatory or contractual requirements which are extremely demanding or difficult to achieve;
- may have to deal with unexpected contingencies during the implementation phase.

Their contractual structure (contractorships for major systems, consortia, joint ventures, public-private partnerships, and so on) may also add constraints and complexity.

The actual cost of development and manufacture of these projects may significantly exceed the initial cost estimated during the bid phase, which in turn may adversely impact Thales's results and financial position, especially considering that these contracts are generally based on a fixed, all-inclusive price. In the event of failure to achieve the required performance or meet the scheduled timetable, customers can also most of the time demand payment of penalties, or even terminate the contract.

Since the most complex contracts run over several years, in accordance with accounting standards, their economic contribution to the Group's results over a given year may be based on an estimate of the costs at completion which can be corrected later.

Group bids and projects management is subject to a detailed risk assessment and management process which is continually being enhanced.

- A criticality ranking enables the management of the operating entities (Business Lines, Global Business Units, Group corporate management) to monitor and approve bids and projects with the most risk attached to them.
- During the bidding phase, the management of commitments is helped by independent peer reviews and by the involvement of the "Technical", "Engineering", "Purchasing", "Production", "Legal and Contracts", "Finance" and "Quality" functions. Special emphasis is placed on verifying that the solution being proposed meets the customer's requirements and is in line with a product policy.
- During the execution phase, regular reviews prepared using a Group-wide format measure the technical, contractual and financial progress of each contract; particular attention is paid to financial variance and to the implementation of corrective action plans.
- Training: at the end of 2018, nearly 1,630 of the Group's bid and project managers or Programme Management Office managers, including 220 during the year, were certified jointly with the International Project Management Association (IPMA).

3.1.1 b) Offsets

Winning major contracts, in particular those in the defence sector, may be contingent in certain countries on making a commitment to implement local offsets which may be direct (the execution of parts of the contract by local manufacturers), semi-direct (location in the customer country of Group activities which are not directly related to the execution of this contract), or indirect (local investments, training, industry, etc.) in domains outside Thales's principal business portfolio.

The Group's ability to factor the offset dimension into its proposals can also be a major source of differentiation and, as such, have a decisive impact on its commercial success.

Non-fulfilment of contractual obligations by the requisite deadlines may expose the Group to penalties, the payment of which does not always release the obligor from its obligations. It can even compromise the Group's capacity to expand its activities in a given country.

Thales's order intake in recent years (particularly the order for the Rafale fighter aircraft placed by the Indian authorities in 2016) has led to a substantial increase in its offset obligations.

Thales units which export to a destination country with an offset policy are responsible for implementing the offset commitments entered into during the bidding phase and for managing their implementation.

The Group has set up specific central organisations to:

- coordinate the direct offsets policies between exporting units and destination countries or regions;
- manage certain semi-direct offsets;
- ensure through delegated units that indirect offset commitments are implemented, a task entrusted to a permanent management structure called *Thales International Offsets*.

3.1.2 Risks related to products and services

Risk identified

The product and service lines developed by the Group must be periodically improved or redesigned to keep pace with market trends and to improve competitiveness, in particular by offering modular architectures and variability that allow for adaptations to be made competitively so that each customer's specifications can be met.

Poor anticipation of demand (volume, operating performance or target cost), bad adaptation of a design or business model, and inaccurate estimation of development costs or market launch times may result in sales or profitability being lower than projected or in the impairment of inventory for certain products or services.

Monitoring and management of the risk

The Global Business Units and Business Lines, which are responsible for the product policy and R&D within their scope, are organised by markets to achieve coherent management of innovation efforts and a consistent response to customer needs.

Product line development is based on a dedicated procedure and organisational structure that are separate from bid and project management.

The Group develops and provides its entities with methodologies, a range of systems, software and hardware engineering tools appropriate to the different levels of complexity of its products and solutions.

3.1.3 Risks related to customer relations, competition and markets

Risk identified

3.1.3 a) Customer satisfaction

Given that Thales operates in markets with a structurally limited number of customers, the dissatisfaction of one customer could have significant consequences.

Major dissatisfaction for whatever reason (delivery delays, inadequate quality or performance, poor understanding of the issues involved, lack of proximity, and so on) could damage confidence in Thales, harm its image and cause it to lose market share.

Restoring the Group's image and positions could require investment and sales efforts.

Monitoring and management of the risk

Thales has introduced a system for gauging its customers' concerns at all times, at a number of different levels:

- a sales network of Key Account Managers who are in close proximity to customers and in ongoing dialogue with them;
- a Quality & Customer Satisfaction organisation which liaises directly with customer Quality representatives throughout the contracts;
- regular independent surveys to assess customer satisfaction and confidence and to take corrective action where necessary;
- initiatives aimed at constantly strengthening the Quality culture and ensuring that teams are customer-centric.

3.1.3 b) Market trends and disruptions

The markets in which Thales is present are sensitive to factors such as changes in standards and regulatory developments, the occurrence of conflicts or major political changes, or technology or business model disruption.

Although it is a key growth lever for the Group, digitalisation might lead to delays in orders due to a wait-and-see attitude on the part of the customer, or to market disruptions or business model changes in all Thales business activities.

The developments in the telecommunications satellite and in-flight broadband markets are an illustration of this:

- the telecommunications satellite market is affected by constant technological developments resulting in a decrease in the Megabyte transmission cost. In particular, uncertainties remain on the interplay between new constellation models and the more traditional satellites in high orbit which are also becoming increasingly technologically advanced, enabling higher capacity solutions to be offered;
- in connection with the development of its activities related to in-flight broadband on passenger aircraft, Thales entered into a strategic agreement with SES from 2016 to 2028 for an annual programme to purchase bandwidth for a predefined amount. The profitability of this business could be affected if the sale of broadband services were to be significantly lower than forecast for several consecutive years.

The diversity of the Group's business activities, the depth of its technology portfolio, its openness to global innovation ecosystems (universities, start-ups and incubators) are strengthening its ability to adapt to the changes in its markets.

In the digital domain, the Group has for several years now been pursuing an action plan structured around:

- expertise in key digital technologies by capitalising on fast-growing R&D investments and an active acquisition strategy;
- the Digital Factory, which is stepping up the pace of digital transformation throughout the whole Group;
- partnerships with customers to support their digital transformation.

Risk identified**Monitoring and management of the risk****3.1.3 c) Dependence on public procurement**

Thales generates a significant share of its business from governments, particularly in the defence markets in many countries. In these markets, public spending is dependent on political and economic factors and is therefore likely to fluctuate from one year to the next. A reduction in the budget resources of government customers could, for example, generate delays in order booking, contract execution and payments, or mean a cut in funding for research and development programmes.

Thales has based its strategy on a balanced portfolio of defence and civil operations, each accounting for approximately 50% of sales in 2018.

The overall solidity of the portfolio is underpinned by a diversified order base with a unit value of less than €100 million.

The broad geographic spread of the Group's business, particularly through its international operations, ensures further diversification of its customer base.

3.1.3 d) Political risks

A significant proportion of Thales's sales is subject to the risk of political instability in the countries in which the Group operates. The materialisation of these risks may affect the Group's business and profitability.

In particular, a change in government, major political event, armed conflict, act of terrorism, sharp deterioration in the balance of payments, industrial action, strikes or protests could lead to various types of risks: more restrictive currency control, impairment of assets, expropriation or the forced sale of Thales's interest in a company, a security situation which prevents Thales from meeting its performance obligations, an unexpected breach of a contract or commitment, an unfair call of a bond or a guarantee, or the non-certification of documents required for payment.

Thales manufactures and sells products in a very large number of countries and is able to adapt to varied or changing regulatory environments.

Thales has set up teams that specialise in the financial engineering of contracts to identify and analyse the risks and to determine how they can be reduced. Thales can use public or private insurers in this context to hedge the risk of contract interruption, credit risk or the risk of unfair call of a bond. It can also make use of financial instruments such as notified or confirmed letters of credit, receivables discounting without recourse or export credit facilities.

Risks related to Brexit

The United Kingdom's decision to leave the European Union ("Brexit") could result in a downturn in the country's economic and budget situation, increased volatility of the pound sterling against the euro, and a change in the rules governing the movement of goods and persons between continental Europe and the United Kingdom. This negative context could impact the business activity and profitability of Thales, which generates around 8% of its Group revenues in the UK and employs around 6,000 people in the country.

Management of risks related to Brexit

Thales has set up a team coordinating all the units concerned in an effort to anticipate the operational consequences of this decision to the best of its ability and minimise its impacts.

The impact on ongoing programmes of any temporary ban on the movement of goods between the EU and the United Kingdom has been assessed and contingency measures have been taken to mitigate any effects of this (early deliveries, build-up of stocks, certification of British suppliers, etc.).

The Group has also established a monitoring unit which (in collaboration with the authorities, either directly or through professional associations) is tracking the tax, legal and regulatory changes so that it can take the necessary steps ahead of time to control any impact of these measures.

3.1.4 Risks relating to strategic acquisitions and investments

Risk identified

Thales regularly looks to acquire new companies (as well as making strategic investments and combining business activities through joint ventures, etc.) in order to round out its technological portfolio and strengthen its presence in certain markets.

Integrating these businesses into Thales could prove more difficult and take longer than envisaged, fail to produce all the expected synergies and other benefits, result in a loss of talent, or require more significant involvement by senior managers and the teams concerned and, in turn, negatively impact the Group's results and financial position.

The financial performance of the companies acquired might not be in line with the assumptions upon which their valuation and the decision to invest were based. Significant variance could lead to the impairment of goodwill and other intangible assets, thereby negatively impacting Thales's results and financial position.

These risks apply in particular to the acquisition of Gemalto, which is described in more detail in section 2.5.

Monitoring and management of the risk

Before any planned acquisitions, Thales conducts audits and due diligence with the assistance of external consultants where necessary, in order to analyse the fundamentals of the target company. Due to the applicable regulations, these due diligence procedures are more limited when the target company is listed.

A review is also conducted at each key stage in the acquisition process to confirm Thales's interest and set the necessary conditions and parameters to ensure a successful outcome.

An internal audit is carried out for all major acquisitions within 18 months of finalisation of the acquisition. These audits assess the strength of the business plans that led to the decision, the integration of the newly acquired company into the Group, the implementation of synergies and the level of performance in relation to the assumptions made. The audit reports are sent to the Group's corporate management and are summarised for the Audit and Accounts Committee.

3.1.5 Risk of lower impact of performance improvement measures

Risk identified

To support its medium-term financial targets, Thales launched the "Ambition Boost" performance plan to increase the entire Group's performance.

This global performance plan provides a common framework within which the units can implement plans and initiatives suited to their own issues in terms of performance improvements.

For the period 2018-2021, this strategy is based, in particular, on:

- introducing a new structure in the purchasing domain;
- implementing new initiatives aimed at increasing the competitiveness of engineering;
- improving the competitiveness of support functions;
- ongoing improvement of operational excellence, both in bid management and project execution.

Thales's earnings and financial position could be negatively impacted if the initiatives planned under the Ambition Boost framework could not be fully implemented or if they failed to generate the expected results according to the original timetable. Moreover, the cost of implementing these initiatives could end up being higher than expected.

Should these risks occur, they could prevent the Group from achieving its financial objectives.

Monitoring and management of the risk

Thales has introduced specific tracking of performance improvement initiatives and the Group's corporate management regularly reviews the progress of the main initiatives, namely:

- optimising purchases with the introduction of an integrated Purchasing organisation and measures aimed at reducing the cost of our principal products and globalising purchasing;
- making engineering more competitive with the worldwide roll-out of shared procedures and tools, rolling out international centres of excellence (France, Romania, India, etc.) and strengthening key competencies;
- improving the efficiency of support functions by using optimised operating methods equipped with better tools and focusing on high value-added activities, plus setting up shared services;
- improving the quality of project execution, mainly by giving more responsibilities to the project team, checking that the procedures are strictly applied and anticipating the resources that will be required.

These initiatives and the amount it costs to implement them are included in the Group's budgets and strategic plans, which are reviewed on a regular basis by corporate management and the Board of Directors.

3.1.6 Human Resources risks

Risk identified

Monitoring and management of the risk

3.1.6 a) Attractiveness, retention and development of talent

Given that most of Thales's business activity is driven by project execution and innovation, the Group's success and financial performance are highly dependent on:

- its ability to recruit, in a timely manner, the talent required for its needs in the different job markets both in France and abroad;
- the quality of the key skills and the commitment of its employees;
- its ability to manage, retain and motivate the talent required for the development of its activity worldwide.

If Thales were unable to be sufficiently attractive to retain and develop talent, its revenues and operating profitability could be negatively impacted.

For a number of years now, the Group has been developing an active human resources management policy aimed at making it more attractive, encouraging integration and developing talent. This is described in section 5.4, pages 107 to 111.

As part of this effort, Thales has revamped and rolled out its employer brand in all the countries in which the Group aims to expand. Communications campaigns and partnerships with major universities have been implemented with the help of the global recruitment function which reports to the Group's Human Resources Department.

3.1.6 b) Diversity and inclusion (NFPS)

In a more globalised cultural and technological environment, making teams more diverse and developing a more inclusive corporate culture are major factors in supporting innovation and creativity, since they result in a larger number of strategies, viewpoints and ideas.

A lack of diversity could affect the Group's ability to respond to major technological changes, customer expectations or business models, which could in turn have a negative effect on its competitiveness, business activity and profitability.

Proactive targets for strengthening diversity and inclusion in a broad sense have been set for the Group as a whole since 2016 and are covered in a quarterly monitoring dashboard (see section 5.4.2, page 112).

In an effort to encourage team diversity and employee inclusion and ensure differences are respected, the Group has adopted a dedicated governance system structured around a Steering Committee, a Diversity and Inclusion Council and a central Diversity and Inclusion function.

In terms of gender diversity and professional equality, the Group has been rolling out negotiated action plans in France since 2004 under agreements signed with trade unions.

Since 2009, Thales has been a signatory to a European agreement called IDEA including gender equality commitments.

The Group's initiatives in this area are discussed in greater detail in section 5.4.2, page 112.

3.1.6 c) Workplace health and safety (NFPS)

If they were mismanaged, the changes in work patterns, the tightened regulatory provisions relating to the working environment, and the issues around industrial safety would expose Thales to sanctions, resulting in costs and risks to its image.

Lack of a high-quality work environment may also negatively impact teams' motivation.

The Group has set up a special body that aims to prevent workplace health and safety risks in the countries where it is present, in the major entities, at Thales sites and at external sites. This also includes anticipating risks related to substances and products and managing major health crises which might occur internationally.

The Group Human Resources and Health, Safety and Environment departments have introduced tangible measures to prevent risks related to workplace health and safety and improve quality of life and wellbeing at work (see section 5.4.3 page 114).

The risks to which employees and outside contractors may be exposed are assessed and monitored on a regular basis throughout the Group. Inter-disciplinary steering committees including medical experts and/or the network of HSE managers meet several times a year (see section 5.4.3 page 114).

3.1.7 Cyber risks

Risk identified

Monitoring and management of the risk

3.1.7 a) Cybersecurity of the Group's IT systems

The Group operates – whether directly or through service providers – complex IT systems and infrastructures that are essential to the smooth running of its commercial, industrial and financial processes. These information systems include management, development and engineering systems as well as platforms operated on behalf of its customers and must be protected against any malfunctions, malicious acts or human error. The malfunction or failure of these systems may have external causes (viruses or other malware and computer hacking, network failures, etc.) or internal causes (malicious acts, breaches of data confidentiality, human error or negligence, obsolescence). Any such malfunction or failure can have an impact on the Group's operations and its financial results.

The Group has implemented multi-year plans to develop its protection measures in order to deal with part of its IT systems being temporarily or permanently unavailable, as well as any cybersecurity threats to these systems. These plans include regular verification audits to confirm that the measures are effective.

A plan to protect against risks related to cybersecurity has been defined and implemented in the countries where the Group currently operates. Based on ongoing risk analyses, this plan drives the constant adaptation of the means of protection already in place, and introduces new measures to heighten protection against cyber-sabotage, cyber crime or cyber espionage attacks.

The plan also includes the implementation of centres for monitoring threats, known as "Cybersecurity Operation Centres" coordinated at global level, so that operational anomalies and incidents that could affect the security of systems are identified as early as possible and the appropriate solutions put in place.

A number of "key rules" on the security of the IT systems derived from the Thales security policy for its information systems aim to ensure the convergence and coherence of cybersecurity strategies throughout the Group. Their effective application is regularly monitored and reported to the Group Information Systems Security department.

The plan is supplemented by ongoing efforts to raise employee awareness of these threats: communication campaigns and training are rolled out to help users maintain the security of their IT systems and remind them of the best practices when using them. Forums for discussion attended by all employees are also held on site on a regular basis.

3.1.7 b) Cybersecurity of the products, systems and solutions delivered

The Group designs and develops cybersecurity products and systems directly or with subcontractors. Thales also designs, develops, supplies and in some cases operates systems or products with inbuilt cybersecurity capabilities.

In both cases, these products and systems might fail in the event of cyber attacks and result in malfunctions for our customers.

The failure of these products and systems might impact the business activity of the product lines concerned, the Group's reputation, and hence its financial results.

The Group provides cybersecurity services such as security monitoring for detecting attacks aimed at our customers' systems. There are also services for auditing and testing the cybersecurity of our customers' systems (intrusion tests).

Thales might not detect a failure despite the tests that are performed.

Cybersecurity products are generally subject to qualification under the aegis of third-party organisations such as ANSSI (the French agency for information systems security) in France. The assessments leading to such qualification are performed based on a security target approved by the regulator.

With regard to the systems designed and delivered by Thales, the Group has established the "Cybersecured in Thales" plan which aims to strengthen the cybersecurity of the existing systems, as well as those in development, on a regular basis.

The most critical and most exposed systems have been mapped, resulting in the preparation of a plan for testing and remediation.

The teams responsible for cybersecurity services are regularly audited by certification bodies.

3.1.8 Supplier risks

Risk identified

Monitoring and management of the risk

3.1.8 a) Dependence on one supplier

Purchases constitute a very significant proportion of Thales's business, representing nearly half its sales, with purchases ranging from industrial to services, equipment and sub-systems. Thales is therefore exposed to the risk of excessive dependence on some of its suppliers, which could affect its performance and, hence, its profitability.

This excessive dependence may take a number of different forms:

- if it is related to a criticality in terms of technology, i.e. if a supplier found itself in a real single-source situation. Activating an alternative source in the event of the insolvency of the supplier concerned might affect the Group's performance in terms of costs and deadlines;
- if it is related to a market shortage. In fact, the concentration or imbalance between supply and demand in some markets may create supply tensions which might affect the Group's performance such that it would then be unable to source products on favourable terms and cost-effectively;
- if it is economic in nature, particularly if too large a number of orders were placed with the same supplier and Thales's share accounted for more than 50% of its sales; actions to disengage from that supplier might also affect the Group's performance.

Faced with the risk of excessive dependence, Thales is implementing the following preventive or corrective measures which are managed by the Purchasing Department:

- a search for dual sources for each technological family, or, failing this, alternative sources that are kept in regular business and combined with appropriate stock plans;
- a regular appraisal of the tightness of supplier markets that allows the level of supply source concentration to be measured;
- monitoring of suppliers' commitment rates (amount of Thales purchase orders compared to the supplier's annual sales). When this rate exceeds 50% for more than two consecutive years, an action plan is created in conjunction with internal specifiers and internal users in order to reduce this commitment rate;
- when performing a purchasing contract, Thales monitors the implementation by the supplier of measures aimed at addressing the risks identified during the selection process.

Alongside these measures, the Group's Purchasing and Quality Control Department has stepped up the appraisal, accreditation and management of supplier performance to better identify structural risks. Supplier performance audits are broad-based (covering quality control, industrial maturity, flow optimisation, compliance with environmental regulations, expertise in technical and technological processes, financial strength, etc.) and therefore allow a more in-depth risk analysis to be carried out.

3.1.8 b) Vigilance concerning supplier regard for corporate responsibility issues (NFPS)

Thales's purchases account for around 44% of its revenues. These purchases are made worldwide from around 15,000 suppliers and subcontractors of all sizes, many of whom have their own subcontracting chains.

Despite the Group's increased vigilance, it is difficult to guarantee that all stakeholders in the upstream supply chain will be fully compliant with the laws relating to corporate, environmental and ethical responsibility.

Should any supplier fail to comply, it might affect the Group's business activity, image and profitability.

Monitoring and management of this risk are included in the Duty of Care Plan pursuant to law No. 2017-399 of 27 March 2017 relating to the duty of care of parent companies and subcontracting companies (see section 5.7.3.2, page 141).

3.1.9 Environmental risks

Risk identified

Monitoring and management of the risk

3.1.9 a) Environmental impacts related to the Group's business activities (NFPS)

Emissions generated by the Group's activities have the potential to affect the environment. In addition, the use of its products by customers may contribute to the production of greenhouse gases that in turn contribute to global warming.

The Group has limited exposure to these environmental risks, however, given that most of its business is engineering and software development.

Nevertheless, should some of its manufacturing activities fail to comply with the applicable laws and regulations on the matter, the Group would run the risk of sanctions, damage to its image or even refusal by some customers to do business with Thales.

Lastly, the risks resulting from climate change (natural disasters, supply chain disruption, market instability, etc.) could have a negative impact on the Group's performance and its business model.

Thales updates its environmental risk analysis on a regular basis in accordance with its business activities, scientific and technical developments, and emergent issues and regulatory changes. To support this analysis, which also includes corporate social responsibility, the Group has introduced an organisational structure and tools at all its sites to control and limit the environmental impacts of its activities (see sections 5.5.2 page 124 and 5.5.3 page 128).

Total provisions for environmental risks amount to €4.85 million at 31 December 2018.

In 2018, the Group also analysed its main product lines and incorporated an eco-design policy for managing new projects. This is designed to reduce the impact of product use as regards energy efficiency and a low carbon footprint.

Lastly, in recent years Thales has performed regular assessments of its sites' exposure to natural disasters in order to reduce its vulnerability to the effects of climate change (floods, hurricanes, fires, water stress, etc.).

3.1.9 b) Anticipating environmental standards in product design (NFPS)

Changes in environmental regulations may rule out certain technical or technological solutions, particularly for certain suppliers or subcontractors. This may result in the need to qualify and implement alternative solutions, a change to the supply chain, or the upgrading of industrial resources, with the costs and timescales associated with such changes.

Regulatory differences between countries and constant changes to regulations also make it more difficult for Thales to verify the compliance of solutions that are released to market, and could put the company at a competitive disadvantage.

Lastly, some customers' expectations may go beyond the regulatory requirements alone and in some cases lead to solutions that are technically impossible or to substantial additional costs.

The Group has promoted a responsible product policy for several years.

It produces an analysis of environmental risks and their impact on the supply chain, on product design and on conditions for accessing various markets that is updated on a regular basis based on emergent issues and regulatory changes (e.g. REACh in Europe, chemicals, etc.).

These factors relating to regulations or to meeting customer needs are passed on to suppliers and the supply chain through contracts and/or specifications.

Solutions for replacing hazardous substances are being developed ahead of relevant regulatory deadlines.

See section 5.5.4 page 129 for more details.

3.1.10 Risks relating to site security, personal safety and sensitive information

Risk identified

Thales is exposed to attempts to breach the security of its sites: attempted breaches for the purposes of gaining access to confidential, sensitive or classified information, threats to the physical security and safety of facilities and personnel, etc.

The occurrence of such events might affect the Group's intellectual, financial or human capital and the proper functioning of its activities, as well as its commercial reputation, and might consequently have a knock-on effect on its results and financial position.

Monitoring and management of the risk

In order to minimise these risks, the Group Security Department has put in place a policy for regulating access to and movement around all sites. This policy, applied by the Group's network of security officers, is in keeping with the Group's defence businesses and the different national regulations requiring it to implement measures to protect its employees and industrial assets. The Group is therefore required to undergo a large number of audits and inspections by the national supervisory authorities in France and abroad.

For sites outside France, this Group policy applies based on a network of security managers in place in each of the 56 countries where the Group has a permanent presence.

It has also implemented a global procedure for employee safety and protection in all of the countries in which they perform their work. In certain countries, this global procedure runs alongside a local security intervention system, which ensures a rapid response to incidents.

A Group hotline is provided 24/7 to respond to any emergencies.

Faced with the current heightened terrorist threat, the Group has increased the level of security and protection for its most sensitive sites.

In France, the system is updated on an ongoing basis in the light of Vigipirate, the country's national security alert system.

3.1.11 Risks related to minority investments

Risk identified

Thales carries out some of its business through companies in which control is shared with, or exercised by, other partners. In 2018, the share in net income of equity affiliates accounted for around 10% of Group EBIT.

A deterioration in the performance of these companies may impact the Group's results and financial position.

Thales could be subject to decisions which are harmful to its interests.

Furthermore, the application of management rules and principles in these entities may differ from those adopted by Thales for entities over which it exerts exclusive control. Access to financial or operational data could be more limited than in the entities where Thales exercises exclusive control.

Monitoring and management of the risk

The Group aims to define appropriate governance methods by seeking to be represented on the Board of Directors (or a similar decision-making body), and more generally, to negotiate contractual or governance provisions that are in Thales's best interests.

3.2 LEGAL AND REGULATORY RISKS

3.2.1 Compliance with international trade rules

Risk identified

The export/re-export of many products, technologies and systems for military or dual use is subject to obtaining licences issued in advance by French and foreign authorities.

In addition, the French, European and foreign regulations including the extraterritorial regulations issued by the Office of Foreign Assets Control (OFAC), establish a framework of restrictive measures and economic and criminal sanctions on any natural person or legal entity, or any state in breach of these provisions.

There are no guarantees that (i) the export/re-export controls to which Thales is subject will not be tightened; (ii) new technologies or generations of products or systems developed by Thales will not be subject to similar or tighter or more restrictive controls; (iii) geopolitical factors will not make it impossible or more complicated or increase the time taken for Thales or its suppliers to obtain export/re-export licences for certain countries or customers or make it more difficult for Thales to execute previously signed contracts or will not give rise to restrictive measures or economic sanctions (embargoes) which would prevent Thales from conducting or continuing to do business with certain countries or certain customers.

More limited access to certain international military markets as well as a ban on dealing with certain customers included on lists of economic sanctions (from OFAC, UN, EU, etc.) might negatively impact Thales's business activity, financial position and profitability.

Monitoring and management of the risk

The Group has adopted an ISO 9100 certified process to ensure compliance with the regulations governing international trade and the controls applicable in terms of export/re-export, as well as with restrictive measures and economic sanctions in force. This process includes procedures, specific IT tools, employee awareness programmes, including, in particular, e-learning modules, an annual internal audit plan and a system to monitor changes in the legislation, regulations and restrictions applicable to Thales's business activities.

Operating units have access to a network of specialists within the Group who are responsible for monitoring the correct application of the compliance rules relating to international trade regulations decided at Group level, as well as tracking applications for the necessary authorisations and the conformity of their implementation with regard to export trade activities.

3.2.2 Compliance with rules of ethical business conduct (particularly anti-corruption and influence peddling) (NFPS)

Risk identified

Thales's business encompasses a variety of sectors in more than 50 countries.

Failure to comply with the laws and regulations applicable to ethical business conduct and in particular, the fight against corruption and influence peddling, may have serious legal and financial consequences for the Group and severely damage its reputation.

Monitoring and management of the risk

The Group's anti-corruption compliance programme, which has been in place for a number of years, has been further strengthened to take account of recent legislative and regulatory changes, especially those resulting from France's "Sapin II" law.

The Group's anti-corruption policy is described in section 5.6.1 page 137.

3.2.3 Compliance with the rules relating to the protection of intellectual property

Risk identified

Given that it develops solutions with significant technological content, Thales is exposed to the risks of dependence on third-party technologies and infringement of intellectual property rights belonging to it or to third parties.

Monitoring and management of the risk

To monitor and manage intellectual property risks, Thales uses a governance system comprising a network of Intellectual Property Managers (IPM) and IP legal officers who implement the policy decided at Group level and, more particularly, by Technical Management.

Thales's intellectual property is protected by the enforcement of intellectual property rights (copyright, patents, trademarks, domain names) and contractual rights.

To reduce the risk of reliance on critical third-party technologies, Thales has implemented a process to identify and manage each situation with a precise, strategic "Make/Team/Buy" plan.

Given the nature of its activities and the specific features of its products, Thales conducts most of its research and development work in-house and focuses on controlling the key technologies which are critical to the business.

To reduce the risk of third-party actions for alleged infringement of their intellectual property rights by Thales entities, the Group identifies and analyses this risk in the context of its own patent filing procedures and/or when embarking on technical research or product development.

In the event of a third-party infringement claim against a Thales company, the legal and technical analysis of the allegedly infringing products and intellectual property rights are handled centrally by Thales experts, with the assistance of specialist external consultants where needed.

3.2.4 Compliance with competition rules

Risk identified

Thales's business activities are subject to a wide range of national and international regulations mainly aimed at combating anti-competitive practices, concerning suppliers, customers, partners and the competitors themselves.

Infringement of these rules could lead to severe sanctions, such as fines, payment of damages and interest, and statutory prohibitions and criminal penalties. Such sanctions could also have a serious impact on the Group's reputation.

Monitoring and management of the risk

To prevent these risks, a dedicated team of experts carries out competitive assessment on sensitive agreements and projects, notifying the competent regulatory authorities in Europe or abroad as required.

In addition, the Group has initiated a programme to raise awareness of these rules, in particular through the drafting of directives, the implementation of online training tools and dedicated training programmes for the most exposed employees.

3.2.5 Litigation

Risk identified

Due to the nature of its business activities, Thales is exposed to the risk of technical and commercial litigation.

Monitoring and management of the risk

To prevent disputes or limit their impact, Thales's legal policy is to systematically seek alternative dispute resolution mechanisms, such as mediation. This policy is reviewed on a regular basis to take into account changes in the Group's core areas of business and is backed by employee training programmes.

In addition, Thales implemented a procedure several years ago to centralise all civil, commercial and criminal litigation and claims. These are handled by the Corporate Legal Affairs Department, with the support of the Group companies concerned.

There are no government, judicial or arbitration claims of which the Group is aware, which are pending or threatened, which had, in the course of the last 12 months, or which could have a material impact on the financial position or the profitability of the Company and/or the Group.

3.2.6 Compliance with the rules relating to the protection of personal data

Risk identified

Thales is exposed to the risk of non-compliance with the regulations concerning the protection of personal data, and, more specifically, the European General Data Protection Regulation (GDPR) which came into force on 25 May 2018.

Like any entity based in the European Economic Area, Thales is impacted by this Regulation as a "data controller" when the Group has to process the personal data of its employees.

Thales is also impacted by this Regulation as a "sub-processor" when it has to process personal data on behalf of its customers.

Monitoring and management of the risk

Thales has rolled out a compliance programme, coordinated by the Data Protection Officer (DPO), using a network of correspondents in the various functions and entities; the programme is based on a Group personal data protection policy which applies both when Thales is the data controller and when it is the sub-processor.

As part of this personal data protection strategy, Thales has, for example, introduced a personal data processing register, reviewed the Group's policy procedures, provided training for its employees and put in place tools to ensure that the Regulation is correctly applied.

3.3 FINANCIAL RISKS

Risk identified

Monitoring and management of the risk

3.3.1 Liquidity

The Group's liquidity risk is the risk of it being unable to meet its cash needs out of its financial resources. In particular, it relates to Thales's level of exposure to changes in the main market indicators that could lead to an increase in the cost of credit or even to a temporary limitation of access to external sources of financing.

The Group manages this risk by trying to anticipate its cash needs and ensures that these are covered by the Group's short-term and long-term financial resources, as follows:

- shareholders' equity, detailed in Note 8 to the consolidated financial statements;
- gross debt, listed by maturity in Note 6.2 to the consolidated financial statements;
- a confirmed bank credit line, not used at 31 December 2018, the specific features of which are described in Note 6 to the consolidated financial statements, and a commercial paper programme (NeuCP).

Additional information can be found in Note 6.6 to the consolidated financial statements.

3.3.2 Interest

Thales is exposed to interest rate volatility and in particular its impact on the conditions associated with variable-rate financing.

The Corporate Financing and Treasury Department consolidates data on Thales's exposure to interest rate risk and uses suitable financial instruments to ensure these risks are appropriately hedged, while also seeking to optimise its financing terms.

The breakdown of the Group's debt by type of interest rate and the Group's exposure to interest rate risk, before and after operations to manage this risk, are described in Note 6.6 to the consolidated financial statements.

3.3.3 Exchange rates

Due to the international nature of its business, Thales is exposed to the risk of exchange rate fluctuations.

Business-related currency risk mainly occurs when some of the business is billed in a currency other than that of the related costs. To a lesser extent, cash pooling and the holding of net assets in countries outside the eurozone also expose the Group to an exchange rate risk.

The accounts of Thales's subsidiaries located in countries where the functional currency is not the euro are translated into euros in the Group's consolidated financial statements. A fall in these currencies against the euro is likely to have a negative impact on the accounts. Its impact on profitability is limited, however, since the cost base of these subsidiaries is essentially in the same currency as their sales. The main currencies concerned are the pound sterling, the US dollar, the Canadian dollar and the Australian dollar.

In addition, for certain Group businesses (commercial avionics, commercial space, etc.), the US dollar ("\$" or "USD") is the reference transaction currency. For activities performed outside the dollar zone, the fall in the USD against the functional currency of the entity concerned might negatively impact the Group's financial statements. It should be noted in this regard that the in-flight entertainment and connectivity business, mainly based in the United States, is naturally immune to this risk.

Lastly, the Group is also exposed to an "indirect" dollar risk on contracts denominated in currencies other than the dollar. This occurs when it is bidding against companies that benefit from a cost base in dollars. Aviation, space and defence are particularly likely to be exposed to this "indirect" dollar risk.

A significant portion of Thales's activity is naturally protected from foreign exchange rate fluctuations, since around 40% of its revenues are generated in the euro zone, which is also the region where the Group conducts most of its manufacturing.

In the event that the US dollar is the reference transaction currency for business performed outside the dollar zone, a specific policy for hedging foreign exchange risk is implemented through market transactions (forward exchange and options).

A similar approach is adopted on an *ad hoc* basis if a customer requires a contract denominated in a currency other than the functional currency of the entity in question.

Additional information can be found in Note 6.6 to the consolidated financial statements.

Risk identified

Monitoring and management of the risk

3.3.4 Pension commitments

Defined-benefit pension plans are in place for certain Group employees, mainly in the UK, which are financed by the Group under the provisions of the applicable domestic legislation. As such, at 31 December 2018, Thales's pension commitments in the United Kingdom amounted to €4,030 million, hedged by €3,165 million in investments, representing an underlying shortfall of €865 million.

Changing market parameters can lead to a substantial increase or decrease in the amount of the shortfall and the annual costs of defined-benefit plans. The main sensitivity factors are as follows:

- a decrease or increase in the discount rate applied to liabilities, which may increase or reduce the underlying shortfall;
- changes in the total return on investments;
- changes in the forecast inflation rate;
- a substantial change in mortality tables;
- exchange rate fluctuations (mainly sterling against the euro).

Thales has introduced six-monthly reporting on its pension plan commitments and regularly examines the sensitivity of underlying shortfalls to possible market changes. In the UK, Thales plan assets are managed by trustees in accordance with the applicable regulations and in consultation with the Group. Plan assets are allocated with regard to the long-term maturity of the commitments they cover.

Additional information can be found in Note 9.3 to the consolidated financial statements.

3.3.5 Customer credit

Credit risk relates to the risk that a party to a contract will default on its commitments or fail to pay what it owes.

a) Risk of default by private sector customers

Non-governmental customers (aircraft manufacturers, airlines, private infrastructure operators and industry) account for approximately 25% of Thales's revenues. These customers may encounter major and/or prolonged financial difficulties that could lead to payment defaults or order cancellations. Such occurrences could have a negative impact on Thales's revenues, profitability and financial position.

To mitigate these risks, Thales conducts regular analyses of the ability of its private customers to meet their obligations. When necessary, Thales may request bank guarantees or corporate guarantees, or may use credit insurers.

Additional information can be found in Note 6.6 to the consolidated financial statements.

b) Credit risk relating to public sector customers

Public, government and institutional customers account for around 75% of Thales's revenues. Thales works with a large number of countries. Some of them could present a significant credit risk which could, for example, lead them to suspend an order in production, or render them unable to pay on delivery, as agreed under the terms of the contract.

To limit its exposure to these risks, Thales takes out insurance with export credit agencies (such as Bpifrance) or private insurers.

Additional information can be found in Note 6.6 to the consolidated financial statements.

3.4 RISK CONTROL ENVIRONMENT

3.4.1 Internal environment

For most of its operations, the Group is subject to a control environment imposed by its customers and by regulatory authorities (Ministries of Defence and Industry, Authorities in its customers' countries, Commercial Aviation Authorities, etc.), who require strict certification and controls.

These specific constraints are in addition to its statutory obligations and are an integral part of the Group's control environment.

Thales's organisational structure is in line with the internationally accepted "three lines of defence" model which provides an effective way of improving risk management and control by clarifying key roles and duties. The managing bodies and corporate management are the main stakeholders in these three lines:

The first line of defence consists of the operational management functions which host and manage the risks; see a) below.

The second line of defence consists of risk monitoring functions (including risk assessment, financial control, security, quality, compliance and insurance); see b) below. The internal control established at Thales is based on the international framework of COSO 2013 (Committee of Sponsoring Organizations of the Treadway Commission) and IFACI, and aims to provide reasonable assurance that the Group's objectives are met through:

- the effectiveness and efficiency of internal processes;
- accounting and financial internal control aimed at:
 - ensuring the reliability of the information used internally for management and monitoring purposes and for the published accounting and financial information,
 - preventing the risk of fraud;
- legal compliance, which is intended to ensure compliance with regulatory requirements.

The third line of defence consists of the Internal Audit function, whose role is to provide independent assurance; see c) below.

a) The main operational players in risk management

Thales is organised according to a two-dimensional matrix structure comprising Global Business Units (GBU) and countries.

- The Global Business Units are organised into business lines (BL), which cover a coherent range of products, solutions and services.

For the products, solutions and services entrusted to them, the Business Lines have worldwide responsibility for strategy, product policy and marketing, competitiveness, customer access, contractual commitments, engineering, development, production, integration, quality and services, industrial organisations, optimisation of resources, and economic performance (contribution to EBIT and cash flow).

- In the region assigned to them, country managers are responsible for the successful implementation of every aspect of Group policy and handle relations with customers and local partners.

The main countries in which the Group operates (Australia, Canada, France, Germany, the Netherlands, the United Kingdom and the United States) share responsibility with the Global Business Units for local bids and projects. Country managers are involved in all decisions taken by the Global Business Units with regard to organisation and appointments, or relating to bids, projects and centres of excellence of any kind in their territories. They are responsible for HR development and the optimisation of industrial resources. They are also responsible for Thales's institutional relations as well as for communication.

The manager of each of the six major industrial countries (excluding France) (see list above) reports to a Non-Executive Chairman, appointed from among the Group's senior executives. The Non-Executive

Chairman acts as an interface between the country and head office and liaises between the Country Manager and the Executive Committee.

For the other countries in Europe, the country or regional Manager reports to the Europe and International Operations department (DEOI), which in turn reports to the Senior Executive Vice President, Operations & Performance (DGOP).

In all other regions (Africa, Latin America, Asia and the Middle East), the country or regional manager reports to the Senior Executive Vice President, International Development.

The Group defines common processes and internal rules on delegation that set out the way in which responsibility is shared, provides entities with the corresponding tools and sets up umbrella departments.

The delegations are implemented in legal entities coordinated at national level.

The Group's managing bodies consist of Global Business Units, countries and functional departments and are ultimately responsible for the Group's entire internal control system, relying in particular on internal processes and the work of the Risk Management Committee and the Risk Assessment Committee.

The Group's governance is founded on the key principle of the responsibility of the directors of operational entities, who are responsible for establishing and maintaining the risk management and internal control system within their operational entities.

Lastly, some complex or risky transactions are carried out solely by central departments, which ensure the sharing, consistency and coordination of the Group's practices. A specific internal control mechanism has been put in place to manage the risks associated with these transactions. Accordingly:

- total or partial acquisitions and disposals fall under the exclusive remit of the Group's corporate management. The Global Business Units propose projects at periodic meetings of the Mergers and Acquisitions Committee, made up of the main central departments;
- all real estate transactions fall under the exclusive remit of the Group's Real Estate Department. It may delegate certain operations, especially outside France, to a national organisation, or to a local company, while ensuring proper supervision.

b) The main internal control and risk monitoring functions

Operations and performance function

The Operations and Performance Department is responsible for the operational resources necessary for carrying out projects and ensuring customer satisfaction and quality, thus contributing to risk management. It approves the most sensitive bids according to specific criteria and holds quarterly reviews of projects deemed critical. It manages skills development plans as well as bid and project manager certification plans. It rolls out and upgrades bid costing and project management tools and provides *ad hoc* support to any Global Business Units and countries that request it. In each entity, the Director of Operations coordinates the management of all of the Company's risks, in close collaboration with the Legal Director and the Finance Director.

The Operations and Performance Department includes the Quality Assurance and Customer Satisfaction Department, which defines the quality assurance policy and objectives and drives improvements in customer satisfaction. It steers the Chorus 2.0 process management framework, which applies to all Group entities. Quality assurance procedures for offers, projects and products are carried out by its representatives in each operational entity, in order to effectively meet

customer demands and ensure customer satisfaction and secure the execution of operations.

Thales's process-based reference system, Chorus 2.0, defines the rules, practices and methods to be implemented by each Group entity. It can be accessed by all staff through the intranet.

Thanks to its modular design, it can be adapted to the business context; it is augmented within each entity or country by local rules and practices.

Chorus 2.0 provides all Group companies with a common language and a unified set of management processes that define the roles, rules, practices and functional methods which are to be applied; its other aim is to ensure uniform organisational alignment throughout the Group.

Chorus 2.0 is the basis of the Group's internal control system and is a natural component of the reference systems used in the work of the Internal Audit, Risks & Internal Control Department.

Chorus 2.0 is a vital tool to enable each entity to have its management systems certified in terms of quality, health, safety and environment and with regard to the norms and standards applicable to each business activity.

In its different activities, Thales has obtained and maintains certifications of compliance with applicable standards and regulations that provide evidence of its ability to manage its processes to meet the needs of its customers. In relation to Quality and for all the Group's activities, ISO 9001 certification applies. In addition, depending on the activity involved, there are numerous standards, including, but not limited to, AQAP 2110 (NATO quality standard in the defence segment), EN 9100 (European standard describing a quality assurance system for the aeronautics and space segments), EASA Part 21 sub-part G (for the production activities in Europe), EASA Part 145 (Europe) and FAR 145 (United States) for maintenance activities, EASA Part 147 (for training in aeronautics maintenance), ISO 14001 and OHSAS 18001/ISO 45001 (for Environment, Health & Safety at work matters), ISO 27001 (for Information Security Management System matters), and ISO 20000 (for Service Management System matters).

Thales has a committed strategy of continuous improvement: the Group has introduced internal and external assessments, based on international standards, enabling the Group to identify any areas requiring continuous improvement, to prioritise these and to monitor the associated action plans.

Internally, the Quality and Customer Satisfaction function steers the policy for assessing the maturity of operational entities using an internal integrated maturity model, Thales Integrated Maturity System (TIMS).

The maturity model covers all of the Chorus 2.0 management system processes and is fully compliant with international standards, such as:

- the international CMMI® (Capability Maturity Model Integration) model, which is recognised by many customers for its development, acquisition and services models;
- the international Supply Chain Operations Reference (SCOR®) model.

Maturity assessments are performed by experienced assessors who are recognised in their field, as well as by the quality managers at each operational entity.

Finance function

The Group's Finance Department is represented in each Global Business Unit, each operational entity and each of the main countries by a Finance Director with a functional reporting line to the Department. The implementation of the accounting and financial internal control is carried out by these Finance Directors, who have local teams within their scope of responsibility to ensure that the financial information is prepared in compliance with the rules on internal control.

At the time of the annual and half-year financial statements, the Chief Executive Officers and the Finance Directors issue a letter of representation to the Group's Finance Department, certifying the fair presentation and completeness of the financial data submitted for consolidation.

The Group's Finance Department oversees the Company's accounting and financial operations. Its central organisation comprises:

- **an accounting and consolidation function** responsible for preparing and presenting the Group's consolidated financial statements. The teams in charge of consolidation ensure that changes in regulations and standards are taken into account. They use the same consolidation software throughout the Group, selected from those available on the market, which enables the accounting information from the Group's various entities to be uploaded with consistency checks carried out at source. Transfers of accounting entries to head office are authorised only after validation. Training sessions and personalised support on the tool within the Group's consolidation teams ensure that users operate the software effectively.

The Group's accounting and financial procedures presented in Chorus 2.0 apply to all entities. They specify in particular:

- the accounting standards and policies to be applied during the preparation of the consolidated financial statements in accordance with IFRS,
- the hierarchy and reporting levels required by the Group, the financial cycles, the responsibilities of the Finance Department in operational processes and the rules to be followed by all Group entities,
- the content and format of the periodic reports,
- the respective role of the central teams and teams in the entities in the conduct of cash and finance transactions and the procedures applicable in short-term cash management, the operation of the exchange rate risk hedging system and the associated reporting rules.

The internal control questionnaire (ICQ) completed by the finance departments (see the section on Corporate risk assessment and internal control function below) and the accompanying instructions provide an additional framework and help to improve the reliability of financial reporting while at the same time preventing the risk of fraud.

The financial reporting system is based on these accounting and financing procedures, and the centralised consolidation process is supported by a unique tool. The Finance Directors of each entity are accountable to the Group's Finance Department for compliance with these procedures.

- **A management and budget control function**, which analyses the Group's financial data and produces monthly reports comparing actual results with the budget and comparable prior-year periods. Financial forecasts for the current half-year and financial year are reviewed and discussed at that time so as to steer the business in order to achieve the objectives set.

Monthly results are analysed in order to identify any budget deviations and to update annual forecasts for orders, sales, profits and cash flow. This procedure is carried out by each entity and provides a consolidated view at Global Business Unit and Group level. It also makes it possible to identify any action plans necessary to achieve the objectives set.

There are three stages in setting the annual budgetary targets:

- the Global Business Units draw up a strategic plan over a minimum period of four years, which can be adjusted depending on their business models; this is then presented to and approved by Group corporate management,
- each Global Business Unit, each major country, the Europe and International Operations Department and the International Development Department then present a detailed three-year budget plan to Group corporate management. This plan is based on the sales forecasts and assumptions prepared by the marketing and sales departments, in accordance with the strategic plans prepared by the Global Business Units,
- finally, Group corporate management sets targets for the Global Business Units, the main countries, the Europe and International Operations Department and the International Development Department, ensuring that they are consistent overall. The first year of the plan is then analysed monthly and is used as a reference for steering the Group;

- **a treasury and financing function**, which optimises financial resources and manages the Group's financial risks (liquidity, foreign exchange, interest rates, pensions, etc.) on a centralised basis. As part of this policy, the Group Treasury and Financing Department (DTFG) provides funding to the subsidiaries, manages cash positions in all of the Group's currencies and matches surpluses with cash requirements. The Group Treasury and Financing Department is also responsible for managing the Group's currency position and, in particular, for implementing currency risk hedging for all the entities, which are responsible for monitoring that risk at the entity level;
- **a financial engineering function**, which coordinates and supervises the implementation of advance market commitments, customer financing, documentary credits or more complex transactions such as project financing. The International Finance Department, an integrated team of experts located at Group head office and in the Global Business Units, takes action to secure receivables and to hedge against the financial consequences of a contract interruption;
- **a tax function**, which provides support to the operational entities on legislation and during tax audits. It also monitors tax consolidation within the Group and ensures its overall coherence;
- **an insurance function** which is responsible for implementing the insurance and management policy for insurable risks. This centralised Insurance and Risk Management Department also monitors implementation of the policy by the Group companies.

The Group is covered against the financial consequences of the risk of accidental damage suffered or caused to property or people using appropriate insurance policies with leading international insurance and reinsurance companies.

The insurance policies arranged by the Group to cover these major risks relate to areas such as:

- damage to property and consequent operating losses,
- transport of goods,
- assembling and testing,
- commercial aviation liability, including civil liability for aeronautical products and hull insurance,
- liability for space products,
- risks of damage to or by naval vessels by subsidiaries, in their capacity as naval equipment suppliers,
- general third-party liability,
- environmental liability,
- liability of executive officers and directors,
- individual accident – repatriation assistance for employees on assignment,
- cyber liability.

The Group had no major loss in 2018.

The Group's policy is to arrange cover on the insurance market based on the rates and within the limits that it considers reasonable, in view of the conditions offered by the market. Insurance policies covering the major risks are limited by guarantee ceilings; general exclusions for the entire market (e.g. asbestos) also apply to Thales.

In 2018, the maximum coverage limit for insurance against damage to property and consequent operating losses was €1.3 billion. This limit takes into account the estimated maximum possible loss to an industrial site which the Group could incur in this regard. In 2018, the Group increased its specific cover against cyber incidents (IT data attack) and damages that could compromise its internal IT systems.

Levels of liability cover depend on the quantification of a reasonable claim expectancy for Thales, as identified by the risk map of the main business activities and at Group level, and on cover capacity available on the insurance market. The insurance coverage for aviation liability commitments, which is covered by a specific programme, is capped at \$2 billion.

The insurance industry depends on the financial markets. There are therefore no guarantees that Thales will be able to maintain current levels of insurance under similar financial conditions in the future.

In order to reduce its exposure to insurance market volatility, Thales insures major risks on a two-tier basis:

- the Group's contribution, through captive insurance and reinsurance companies, to the settlement of claims, to a maximum net retention of €12 million per year, for damage to property and consequent operating losses, transport, general third-party liability, assembling and testing, development and space risks,
- transfer to insurers of payment for catastrophic or high intensity losses.

In parallel, an active Prevention and Protection policy for industrial sites is designed to reduce the frequency and magnitude of the accidental risks of fire or explosion and to detect other exposures, such as environmental or natural disasters and the vulnerability of critical industrial facilities. In 2018, close to 70% of the assets insured were the subject of a "multi-peril" audit by the insurers during their visits to the principal operating sites and infrared thermography inspections by outside organisations specialised in the prevention of electrical damage.

In accordance with Group processes, measures were taken to minimise business interruption and the consequences of any unforeseen events. An organisational structure and crisis management tools are in place to deal as efficiently as possible with the immediate consequences of a catastrophic event and to take the necessary emergency measures.

A risk prevention policy for critical supplier sites was also pursued to reduce the risk of operating losses for Thales in the event of an accidental disaster at one of their sites.

Furthermore, Thales continues to roll out an insurance policy for its staff to cover them in the context of their professional activity. Lastly, specific and/or local cover has been arranged to comply with the regulations in force or to satisfy the specific requirements of certain business activities or projects, particularly public-private partnerships.

Ethics and Corporate Responsibility function

The Ethics and Corporate Responsibility Department implements the policy defined by the Group. It sets the internal standards and processes relating to business ethics, more specifically those relating to anti-corruption and influence-peddling, in close coordination and across the entire Group with all the Group's departments, and contributes to the process of changing behaviours within Thales.

The legal and contracts function

The Legal and Contracts Department is based on three pillars:

- a team of corporate lawyers who are experts in their field and serve the operational entities;
- a team of legal advisors and contract managers tasked with providing expertise in contract-related matters, from preparing the bid right through to the end of the contract;
- a team of legal advisers responsible for ensuring strict adherence to the Group's compliance policy.

As part of its remit, the Legal and Contracts Department provides and implements the appropriate legal and contractual solutions for conducting the Group's operations and pursuing its strategic and operational objectives. It ensures compliance with the applicable regulations and Group procedures relating to integrity and conformity. To this end, it rolls out and implements the anti-corruption and anti-influence peddling programme; it prepares, updates, rolls out and implements the other compliance programmes that are relevant to the Group, taking due account of the most sensitive regulations applicable to its activities (Trade Compliance, Competition law, Protection of Intellectual Property, Protection of Personal Data, Environmental law).

The Group's Human Resources Department also has a network of legal advisors who specialise in employment law and who provide support to the Group's entities. The Legal & Contracts Department and the Human Resources Department call upon outside law firms, where necessary.

With the exception of disputes concerning relationships with employees and trade unions, which are handled by the Human Resources Department, litigation and disputes are monitored by the Legal and Contracts Department.

The corporate risk assessment and internal control function

The Group has a risk assessment process in place for all the businesses and subsidiaries it controls. The Audit, Risks & Internal Control Department (DARCI) maps the major operational, strategic, compliance or financial risks to which Thales is exposed. It updates this risk mapping each year. This mapping is organised by risk factors broken down as risk scenarios which are independent of each other, which are measurable in terms of probability of occurrence and financial impact based on a common prudential rating scale, and which are each assigned to a single line of responsibility.

The Group has designated a Risk Advisor for each of these risk factors who is responsible for coordinating the management of this risk under the supervision of the Risk Assessment Committee. This consists of characterising the risk, monitoring major incidents, overseeing the deployment of the risk management system and continuously improving it.

The Group Audit, Risks & Internal Control Department also prepares risk mappings twice a year by Global Business Unit and by Major Country, as well as for certain Group-wide topics, in addition to the risks already identified and managed by operational management. The operational departments concerned, the Quality Department and the Insurance Department are involved in this work.

The internal audits conducted by the Audit, Risks & Internal Control Department (see c) below) are mostly chosen and planned based on this risk analysis.

The Audit, Risks & Internal Control Department is also responsible for developing and updating internal control assessment questionnaires, such as the yearly attestation letter (YAL) and the internal control questionnaire (ICQ), and collating and analysing the responses given by the operational entities in these annual questionnaires.

- YAL questionnaire: every year, the local entities report on the risk scenarios under their responsibility, in the form of a YAL questionnaire, updated annually and completed by the heads of the operational entities and their management teams. In 2018, 113 questionnaires were completed by the Group's operational entities. The responses to these questionnaires are analysed by the Audit, Risks & Internal Control Department, and by the network of risk advisors. A sample of questionnaires are checked for accuracy and compliance by the Audit, Risks & Internal Control Department: in 2018, 17 YAL questionnaires were subject to an internal audit.
- ICQ questionnaire: drawing in particular on the AMF recommendation entitled "Reference framework for risk management and internal control systems" and in collaboration with its statutory auditors, the Group asks its financial community to complete an internal control questionnaire (ICQ) focusing on the reliability of financial processes and the prevention of fraud. The ICQ is based on internal control objectives linked to the Group's processes and accounting cycles (customers/suppliers/fixed assets, etc.) and is designed to enable the entities to identify areas for improvement, whether these are due to control objectives that have not yet been achieved in full, insufficient control in practice, or procedures that need to be improved. In 2018, 135 questionnaires were completed, covering all of the operational entities and shared services. Four of these questionnaires were audited by the Audit, Risks & Internal Control Department.

c) Internal Audit

The Audit, Risks & Internal Control Department ensures proper risk management and the maintenance of adequate internal control by conducting audits or providing guidance. It may have involvement throughout the Group (Thales parent company and its controlled subsidiaries) as well as with its non-controlled subsidiaries, after agreement with the co-owner companies. Its scope of involvement covers all domains and processes (governance, administrative, accounting and financial, functional and operational, etc.). The Audit, Risks & Internal Control Department principally works with the Audit and Accounts Committee, the Risk Management Committee, the Risk Assessment Committees, Group corporate management and the statutory auditors.

Since 2006, the Audit, Risks & Internal Control Department has been continuously certified by the French Institute of Audit and Internal Control (IFACI), which ensures that its practices comply with international auditing standards. The last IIA/IFACI triennial certification was obtained by the Audit, Risks & Internal Control Department in March 2016. The annual progress visit made by IFACI in March 2018 confirmed the Department's capacity and that of its auditors to coordinate their activities and operate in accordance with the prerequisites and the core principles of the internal audit profession.

The actions of the Audit, Risks & Internal Control Department are governed by an Internal Audit charter (updated in June 2016) that defines the basic principles of internal control and internal audit, the scope and limits of its responsibilities and its interaction with the entities.

In 2018, 61 audits or advisory engagements arising from the Group's risk analysis and planned according to the criteria set out and approved by the Audit and Accounts Committee, were conducted by teams from the Group Audit, Risks & Internal Control Department. These engagements focused on the following themes:

- Operations: bids and projects, product policy, engineering and industry;
- Compliance: ethics, export control, security of information systems, business continuity plans;
- Governance: organisation, shared services, joint ventures, monitoring of acquisition transactions;
- Internal control: audits on the accuracy of the internal control questionnaires (YAL and ICQ).

3.4.2 Monitoring and control bodies

The Board of Directors

The Board of Directors exercises control over the management of the Group, either directly or through its committees. Detailed information on the organisation of the Board's work, its internal regulations, and, more generally, the performance of the Board and its committees is given in section 4.2.1 page 73.

Audit and Accounts Committee

Meetings of this committee to the Board of Directors review the resources employed and the actions taken to improve internal control and risk identification and management. This committee met five times in 2018.

The Group Audit, Risks & Internal Control Department submits an audit plan to the Audit and Accounts Committee each year, covering various aspects relating to the Group in respect of compliance with legislation and regulations, assessment of internal control and risk identification and management.

At the time of the annual closing of the accounts, the Senior Executive Vice President, Finance and Information Systems reports on risk exposure and significant off-balance sheet commitments to the Audit and Accounts Committee.

Risk Management Committee

This committee, chaired by the Chairman & Chief Executive Officer, is responsible for defining the level of risk deemed acceptable by the Group, allocating risk management and control responsibilities for these risks, defining the strategy for transferring certain risks to insurance, approving the Group's risk mapping, and more generally, ensuring that the risk assessment and management system is as comprehensive as possible in order to maximise risk mitigation. It is supported by the work of the Risk Assessment Committee. This committee met three times in 2018.

Risk Assessment Committee

This committee is chaired by the Senior Vice President, Audit, Risks & Internal Control (DARCI). It is responsible for analysing risks and evolving threats; it updates and prioritises risk scenarios, ensuring that responsibility for each risk scenario is allocated within the Group, prepares risk maps and formulates recommendations for the Risk Management Committee, with a view to improving the overall management and mitigation of Group risks. In 2018, the Risk Assessment Committee met every six months with each of the six Global Business Units.

Ethics and Corporate Responsibility Committee

This committee, chaired by the Company Secretary, is composed of representatives of the functional departments and the main countries in which the Group is based. There are three main areas to its work: helping to define Thales's ethics and corporate responsibility policy, ensuring changes are made in the internal Codes and that they are rolled out in Thales, and instigating the appropriate communications initiatives, dealing with the ethical questions submitted to it, and conducting the necessary investigations (where necessary in the form of *ad hoc* committee meetings) so that it can propose any appropriate actions/sanctions to management.

The committee met three times in 2018.

External audit and control of financial information

Each year, the Group's Finance Department reviews the financial audit manual with the statutory auditors. This manual describes the phases for the use of external auditors.

Consolidated companies are placed in one of three categories, according to their size and the risks to which they may be exposed. They may be subject to an in-depth review, a limited review or a review for statutory requirements.

In the first two types of review, as well as assessing the financial statements, the statutory auditors recommend improvements in terms of internal control. These recommendations are presented to Group management as part of closing the year-end accounts.

GOVERNANCE AND COMPENSATION



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4.1 COMPOSITION OF THE BOARD OF DIRECTORS AT 31 DECEMBER 2018

4.1.1 Directors

4.1.1.1 Appointed at the General Meeting⁽¹⁾

PATRICE CAINE

(48)

Chairman & Chief Executive Officer

Chairman of the Strategic & CSR Committee

First appointed

23 December 2014

Current term expires

2022 AGM

Number of shares held

- 9,473 Thales shares (9,373 in registered form, 100 under the Group savings scheme);
- 3,438 Thales stock options.

Patrice Caine was born on 7 January 1970 and is a French citizen. He is a graduate of the École Polytechnique and the École des Mines de Paris and holds the rank of Chief Engineer (*Ingénieur en chef*) of the Corps des Mines. He began his career in 1992 at Fournier, a pharmaceutical company, before working as a consultant in M&A and Corporate Strategy at Charterhouse Bank Limited in London.

From 1995 to 1998, he was special advisor to the Prefect of the Franche-Comté region of France and Head of the Industrial Development and Energy Division at DRIRE, the French agency responsible for industry, research and the environment.

From 1998 to 2000, he was part of the Conseil Général des Mines, in charge of human resources for the Corps des Mines. During this time, he oversaw the training of graduate engineers for the civil service at the École des Mines de Paris. From 2000 to 2002, he worked as a technical advisor on energy on the staff of the Minister of the Economy, Finance and Industry.

In 2002, Patrice Caine joined the Thales Group's Strategy department before being appointed to manage the following operating units: Aviation & Naval, Communications, Navigation & Identification, Air Systems, Radio Communication Products, Network & Infrastructure Systems and Protection Systems.

He is the recipient of the French National Defence Medal (*Médaille de la Défense Nationale*) in the bronze category. In 2014 he was named Knight of the French National Order of Merit and in 2017 Knight of the French Legion of Honour.

In February 2013, Patrice Caine joined Thales' Executive Committee as Senior Executive Vice President, Operations & Performance.

On 23 December 2014 he was appointed Chairman and Chief Executive Officer of Thales by the Board of Directors.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Director of Naval Group and L'Oréal⁽²⁾

Abroad: none.

Other positions held by Mr Caine in the last five years

In France: Director of École des Mines de Paris.

Abroad: none.

⁽¹⁾ Of the directors referred to in this section, Odile Renaud-Basso, director representing the French state, was appointed by order of the Minister of the Economy and Finance pursuant to Article 4 of Order No. 2014-948. She was appointed Permanent Representative of the French state on 30 January 2018, which was co-opted as director that same day.

⁽²⁾ Listed company.

LAURENCE BROSETA**(50)**

Director proposed by the Public Sector
(Article 6 of Order No. 2014-948)

First appointed
14 May 2014

Current term expires
2021 AGM

Number of shares held
700 Thales shares

In addition, her husband, Xavier Broseta, holds:

- 450 Thales shares;
- 52 Thales shares under the Group savings scheme.

Born on 22 September 1968, Laurence Broseta is a French citizen and a graduate of the École Polytechnique and Télécom ParisTech.

She began her career at RATP where she oversaw operations at its bus, tram and underground departments. She also took part in new rail infrastructure projects in the UK and South Africa, where she started up and managed a locally-based operating company.

In 2008, she became Head of RATP Dev's international business unit, with responsibility for operating transport services (Bus, rail, underground and tram) in nine countries and leading business development.

In March 2013, she became Senior Executive Vice President France of Transdev, an international group that provides mobility and passenger transport services.

Since July 2016, Laurence Broseta is Chief Executive Officer of Transdev's International Zone in charge of Southern Europe and Northern Europe, Asia, the Pacific, South America, the Middle East and Africa, which reported €1.7 billion in revenue and has some 20,000 employees. She will leave Transdev in the first half of 2019.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Member of the Supervisory Board of Vallourec⁽¹⁾ and Director of RATP Dev Transdev Asia.

Abroad: Director of Transdev group subsidiaries (in Spain, Portugal, South Korea, India, Germany, Chile, Colombia, Australia and New Zealand).

Other positions held by Ms Broseta in the last five years

In France: Director of Transdev group subsidiaries, Director of Thello, Director and Vice Chairman of the Union des Transports Publics, and Director of the RATP Foundation.

Abroad: none.

CHARLES EDELSTENNE**(80)**

Director recommended by the Industrial Partner

Member of the Strategic & CSR Committee

First appointed
19 May 2009

Current term expires
2022 AGM

Number of shares held
509 Thales shares

Born on 9 January 1938 and a French citizen, Charles Edelstenne is a qualified chartered accountant.

He began his career at Dassault Aviation, where he started in 1960 as Head of the Financial Studies Department. He became Company Secretary in 1975, then Vice President for Economic and Financial Affairs in 1986.

From 2000 to 2012, he was the Chairman & Chief Executive Officer of Dassault Aviation.

In January 2013, he was appointed **Chief Executive Officer of Groupe Industriel Marcel Dassault**, then **Chairman** and Chief Executive Officer in May 2018.

He was the founder, Managing Director, then Chairman & Chief Executive Officer, and is now Chairman of the Board of Directors of Dassault Systèmes.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Chairman of Groupe Industriel Marcel Dassault SAS, Chairman of the Board of Directors of Dassault Systèmes SE⁽¹⁾, Director of Sogitec Industries SA, Honorary Chairman of Gifas, Chairman & Chief Executive Officer of Dassault Medias SA, Chairman of Groupe Figaro SASU and Société du Figaro SAS, Director of Groupe Figaro Benchmark SASU, Director of Carrefour SA⁽¹⁾, Chief Executive Officer of Dassault Wine Estates SAS, Chairman of Rond-Point Immobilier SAS, Rond-Point Holding SAS, Manager of Rond-Point Investissement SARL, Manager of Sociétés Civiles Arie and Arie 2, Nili and Nili 2 and Société Civile Immobilière de Maison Rouge, Director of the mutual fund ("SICAV") Monceau DUMAS.

Abroad: Director of SABCA⁽¹⁾ (Belgium), Chairman of Dassault Belgique Aviation SA, Director of Dassault Falcon Jet Corp. (United States) and of the bank Lepercq de Neuffize & Co. (United States).

Other positions held by Charles Edelstenne in other companies in the last five years

In France: Chairman & Chief Executive Officer of Dassault Aviation SA⁽¹⁾, Chief Executive Officer and member of the Supervisory Board of Groupe Industriel Marcel Dassault SAS.

Abroad: Chairman of Dassault Falcon Jet Corp. (United States), Chairman of Dassault International Inc. (United States).

⁽¹⁾ Listed company.

YANNICK D'ESCATHA

(70)

Independent director

Chairman of the Governance and Remuneration Committee

First appointed

19 May 2009

Current term expires

2020 AGM

Number of shares held

500 Thales shares

Born on 18 March 1948 and a French citizen, Yannick d'Escatha is a graduate of the École Polytechnique and an engineer of the Corps des Mines.

In 1972, he lectured at the École Polytechnique, the École des Mines de Paris and ENSTA, the French engineering and research institute.

In 1973, as a technical expert with the French Ministry of Industry, he took part in the drafting and subsequent implementation of the French technical regulations relating to nuclear-fired water boilers.

In 1978, he was appointed Head of the control office for nuclear construction where he was responsible for government technical control of the application of this regulation to the French electro-nuclear programme.

In 1982, he was seconded to Technicatome, a subsidiary of the CEA (French Atomic Energy Commission), whose main activity is industrial general contracting in the field of nuclear propulsion for French naval vessels. Having been director of the Cadarache and Aix-en-Provence sites, Yannick d'Escatha was appointed Deputy Chief Executive Officer of Technicatome on 1 January 1987.

On 1 March 1990, he was asked by the Executive Director of the CEA to accept the post of director of the newly created Advanced Technologies division, and became Deputy Executive Director of the CEA on 14 September 1992.

He was appointed Managing Director of the CEA on 1 July 1995 and Chairman of the holding company CEA-Industrie on 28 June 1999.

On 1 January 2000, he was appointed Executive Vice President Industry at EDF. As the Head of EDF's Industry Cluster, he was responsible for the company's production and engineering activities and industrial policy.

In January 2002, he became Chief Operating Officer at EDF.

In February 2003, the French Council of Ministers appointed Yannick d'Escatha as Chairman of the National Space Research Centre (CNES) and renewed his appointment in February 2010, until he reached the age limit of 65 in 2013, when he retired.

Since May 2013, he works as a consultant.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Member of the *Académie des technologies* (the National Academy of Technologies of France).

Abroad: none.

Other positions held by Mr d'Escatha in the last five years

In France: Chairman of the National Space Research Centre (CNES), Chairman of the Board of Directors of the University of Technology of Troyes, member of the Board of Directors of EDF⁽¹⁾, Permanent Representative of the CNES on the Board of Directors of Arianespace SA and Permanent Representative of the CNES on the Board of Directors of Arianespace Participation.

Abroad: none.

BERNARD FONTANA

(57)

Director proposed by the Public Sector

(Article 6 of Order No. 2014-948)

Member of the Audit and Accounts Committee

Date of first appointment

30 January 2018

Current term expires

2021 AGM

Number of shares held

Not obliged to hold Thales shares (Art. 6-VI of Order No. 2014-948).

Born on 11 March 1961, Bernard Fontana, a French citizen, is a graduate of the École Polytechnique and the École Nationale Supérieure des Techniques Avancées of Paris (ENSTA).

He began his career in 1987 as an armaments engineer at Groupe SNPE (formerly Société Nationale des Poudres et Explosifs), where he held a variety of positions including General Manager of the fine chemicals business, Vice President of strategy for the chemicals business and then Head of North America. In 2001, he was appointed member of the Executive Committee of Groupe SNPE, in charge of the chemicals and industrial explosives business.

In 2004, he joined steelmaker ArcelorMittal as Executive Vice President, Human Resources, for the Flat Products Europe business. In 2006 he became Executive Vice President of ArcelorMittal with responsibility first for the automotive sector and then for human resources. In 2010 he was appointed to manage the stainless steel division of ArcelorMittal which was listed on the stock exchange under the name Aperam, and of which he then became Chief Executive Officer.

In 2012 he was appointed Chief Executive Officer of Holcim, the world's leading cement producer, where he managed the company's merger with Lafarge. In September 2015, Bernard Fontana was appointed Chief Executive Officer of Areva NP, then Chairman of the Management Board in July 2016. The group was renamed Framatome in 2018.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Chairman of the Management Board of Framatome.

Abroad: none.

Other positions held by Mr Fontana in the last five years

In France: Chief Executive Officer of Areva NP

Abroad: Director of ACC Limited⁽¹⁾ (India), director of Abuja Cement Limited⁽¹⁾ (India) and director of Holcim Technology Limited (Switzerland).

⁽¹⁾ Listed company.

PHILIPPE LÉPINAY**(65)****Director representing
employee shareholders****Member of the
Strategic & CSR Committee****First appointed**8 March 2007,
effective 1 April 2007**Current term expires**

2021 AGM

Number of shares held:

- 1,245 Thales shares;
- 1,230 Thales shares under the Group savings scheme.

Born on 3 December 1953, Philippe Lépinay is a French citizen and a graduate engineer of the Institut de Marketing International, Université Paris VII.

Between 1977 and 1986, he held a variety of sales and marketing roles with the Appalette & Tourtellier Systèmes, Radiall and Sopema groups.

In 1986, he joined Thales Electron Devices as an export sales engineer, and in 2000 he became Head of development at Thales Engineering & Consulting.

He joined Thales International in 2003. Since 2013, he is Vice President, International Relations at Thales.

Appointments and other positions held in companies in France and abroad**Appointments held in other companies**

In France: International Relations Delegate of the French Federation of Employee Shareholders' Associations (FAS), Vice Chairman of the Federation of Employee Shareholders' Associations of Thales (FAST), member of the Supervisory Committee of the Thales Employee Shareholding FCPE (investment fund), member of the Development Council of the ENSOA (French School for Active Non-Commissioned Officers) and member of the Board of Directors of the Lebanese Chamber of Commerce.

Abroad: none.

Other positions held by Mr Lépinay in the last five years

In France : Chairman of the FAS, member of the Steering Committee for Profit-sharing, Incentives, Savings and Employee Shareholding (COPIESAS).

Abroad: none.

ARMELLE DE MADRE**(48)****Independent director****First appointed**

28 June 2017

Current term expires

2019 AGM

Number of shares held

500 Thales shares

Born on 2 May 1970, Armelle de Madre, a French and Dutch citizen, graduated from the University of Columbia, New York and HEC, Paris.

Armelle de Madre started her career in 1993 as a Marketing Analyst at Renault. In 2001, she became Training Manager for the Head Office, then HR Manager for Renault's logistics business. In 2006, she was appointed Human Resources Director firstly in charge of the Flins factory, then for Renault's vehicle and mechanical engineers, a remit which included the group's Technocentre, one of the largest R&D centres in France with more than 16,000 employees.

She joined Schneider Electric in 2010 as Strategy and Social Innovation Director, and then the Arkadin Group in 2011, which provides unified communications solutions and is a subsidiary of NTT, one of the main telecoms operators in the world, as Vice Chairman of Human Resources in charge of Europe, the Middle East and Africa (EMEA). In 2016, she became Vice Chairman of Marketing, EMEA. Since April 2017, Armelle de Madre has been Human Resources Director of Arkadin and, in this capacity, joined the Group's Executive Committee. She is also a member of the International Women's Forum France.

Appointments and other positions held in companies in France and abroad**Appointments held in other companies**

In France: none.

Abroad: none.

Other positions held by Ms de Madre in other companies in the last five years

In France: none.

Abroad: none.

ODILE RENAUD-BASSO

(53)

Director proposed by the Public Sector, appointed representative of the French state by order of 19 July 2017⁽¹⁾

(Article 4 of Order No. 2014-948)

Member of the Strategic & CSR Committee

Member of the Governance and Remuneration Committee

First appointed
19 July 2017

Current term expires
2021 AGM

Number of shares held
Not obliged to hold Thales shares (Art. 5 of Order No. 2014-948).

Born on 2 June 1965, Odile Renaud-Basso, a French citizen, is a graduate of the Paris Institute of Political Studies and a former student of the École Nationale d'Administration.

After starting her career as an auditor in the *Cour des comptes* (1990-1994), Odile Renaud-Basso joined the French Treasury Department where she held various positions between 1994 and 2005 related to international, industrial and financial issues. In 2005, she was appointed Director of the Directorate-General for Economic and Financial Affairs (DG Ecfm) of the European Commission and continued her career in the European bodies, becoming Deputy Head of Cabinet of the President of the European Council in 2010.

In May 2012, she became Deputy Director of the Office of the French Prime Minister. Then in September 2013, she took up the position of Deputy Chief Executive Officer Caisse des Dépôts and Director of Savings Funds.

Since 30 June 2016, Odile Renaud-Basso is Director General of the French Treasury.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: none.

Abroad: none.

Other positions held by Ms Renaud-Basso in the last five years

In France : 2013-2016: Director of CNP Assurances and of the La Poste Group.

Abroad: none.

DELPHINE DE SAHUGUET D'AMARZIT

(45)

Director proposed by the Public Sector
(Article 6 of Order No. 2014-948)

Date of first appointment:
12 April 2018

Current term expires
2021 AGM

Number of shares held
Not obliged to hold Thales shares (Art. 6-VI of Order No. 2014-948)

Born on 5 May 1973, Delphine de Sahuguet d'Amarzit, a French citizen, is a graduate of the Paris Institute of Political Studies and the École Nationale d'Administration (ENA).

She began her career at the Inspection Générale des Finances and then joined the French Treasury Department. In 2003, she became a technical advisor on financial services on the staff of the Minister of the Economy and Finance, and in 2007 was appointed as advisor on economic and financial affairs to the Prime Minister. From 2009 to 2013, she was in charge of the multilateral affairs and development office at the French Treasury Department where she oversaw the organisation of France's Presidency of the G8 and G20 for the Ministry of Finance, before becoming Head of the Financial Sector Department (SFE), responsible for corporate funding and financial regulation.

In 2015, she joined the management committee of Canal+ as Company Secretary. In June 2016, she was appointed Deputy Chief Executive Officer of Groupama Banque, which was renamed Orange Bank after Orange became its majority shareholder.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Director of ID2S, Deputy Chief Executive Officer of Orange Bank SA.

Abroad: none.

Other positions held by Ms d'Amarzit in the last five years

In France: Director of BPI France SA.

Abroad: Director of Dexia SA (Belgium).

(1) By order of 30 January 2018, Mrs Odile Renaud-Basso was maintained age Representative of the French State, which was co-opted by Director on the same day.

LOÏK SEGALEN**(58)****Director recommended
by the Industrial Partner****Member of the Audit and
Accounts Committee****First appointed**
19 May 2009**Current term expires**
2022 AGM**Number of shares held**
509 Thales shares

Born on 27 March 1960, Loïk Segalen is a French citizen and a graduate of the École Centrale de Lyon and ESSEC.

He started his career in 1986 in the Finance Department of Dassault International.

He served as financial advisor to Dassault Aviation's Vice President for Economic and Financial Affairs in 1990 and subsequently became Deputy Director (1998-1999), and ultimately Director.

In January 2009, Loïk Segalen was appointed Vice President for Economic and Financial Affairs at Dassault Aviation.

He became Vice President for Economic and Social Affairs at Dassault Aviation in September 2011.

In January 2013, he became Chief Operating Officer of Dassault Aviation.

He is a member of the Dassault Aviation Management Committee.

He is a Knight of the French Legion of Honour and a Knight of the French National Order of Merit.

Appointments and other positions held in companies in France and abroad**Appointments held in other companies**

In France: Director of Sogitec Industries, member of the Board of Directors of Gifas.

Abroad: Director of Dassault Falcon Jet Corporation (USA), Dassault International Inc. (USA), Midway Aircraft Instrument Corporation (USA), Sabca⁽¹⁾ (Belgium), Sabca Limburg (Belgium) and Dassault Belgique Aviation (Belgium).

Other positions held by Mr Segalen in the last five years

In France: none.

Abroad: Director of Dassault Procurement Services (USA).

ANNE-CLAIRE TAITTINGER**(69)****Independent director****Chairman of the Audit and
Accounts Committee****Date of first appointment**
15 May 2012**Current term expires**
2022 AGM**Number of shares held**
612 Thales shares

Born on 3 November 1949, Anne-Claire Taittinger, a French citizen, is a graduate of the Paris Institute of Political Studies, and holds a Master's degree in Urban Sociology, a postgraduate diploma (DESS) in Urbanism and a degree from the Centre de perfectionnement aux affaires (CPA business school). She began her career in 1976 in the Caisse des Dépôts et Consignations group as manager for urban operations in the Société centrale d'équipement du territoire.

She joined the Groupe du Louvre in 1979 as Company Secretary, then became Chairman & Chief Executive Officer of the Compagnie Financière Deville. She was subsequently Chairman & Chief Executive Officer of the Compagnie Financière Leblanc, Elm-Leblanc, Vice Chairman & Chief Executive Officer of the industrial division of Deville, and Chairman & Chief Executive Officer of Annick Goutal perfumes France USA and later of Baccarat.

She became Chief Executive Officer, followed by Chairman of the Management Board of the Société du Louvre in 1997, and, in 2002, Chairman of the Management Board of Groupe Taittinger and Chief Executive Officer of its subsidiary Groupe du Louvre when the positions of Chairman of the Board and Chief Executive Officer were separated. She stepped down from these positions in July 2006, after overseeing the sale of Groupe Taittinger to an investment fund in 2005.

In September 2006, she formed part of a pool of investors that bought Champagne Taittinger.

In 2004, Anne-Claire Taittinger became involved in the Women's Forum for the Economy and Society, both as a co-founder and investor.

Appointments and other positions held in companies in France and abroad**Appointments held in other companies**

In France: Chair of SAS Le Riffay. Member of the Management Committee of SAS E-Attestation (since September 2018).

Abroad: none.

Other positions held by Ms Taittinger in the last five years

In France: Until July 2018: Director and member of the Appointments and Compensation Committees of Carrefour.⁽¹⁾ Until 2015: Director and Chairman of the Appointments, Compensation and Corporate Governance Committee of Club Méditerranée⁽¹⁾. Until 2013: Director of FinanCités, of the IFA (*Institut Français des Administrateurs*) and of the Fondation Planet Finance, member of the Supervisory Board of Planet Finance.

Abroad: none.

⁽¹⁾ Listed company.

ANN TAYLOR

(71)

Independent director

First appointed
15 May 2012

Current term expires
2022 AGM

Number of shares held
500 Thales shares

Born on 2 July 1947, Ann Taylor is a UK citizen and studied at the University of Bradford, where she obtained a Bachelor's degree in Political Science and History, and the University of Sheffield, where she obtained a Master's degree in Economic History.

In 1974, she was elected MP (Labour) for Bolton West, holding this seat until 1983.

She subsequently became Head of the Housing Corporation and a lecturer at the Hansard Society (a member of Birkbeck College) from 1983 to 1987.

In 1987, Ann Taylor was elected MP (Labour) for Dewsbury. She then held various ministerial roles, notably Leader of the House of Commons and Government Chief Whip. She reported directly to the Prime Minister (Tony Blair) and sat on most government committees.

In May 1997, she became member of the Privy Council when she was appointed as Chairman.

In 2001, she chaired the Intelligence and Security Committee under the direct authority of the Prime Minister.

In 2005, she entered the House of Lords (with a life peerage) where she is a representative at the Parliamentary Assembly of the Council of Europe (Political Committee) and the Assembly of the Western European Union (Defence Committee). She is a member of the NATO Parliamentary Assembly.

In 2007, as a British State Minister in the House of Lords, Ann Taylor became responsible for matters of defence, notably as Minister for Defence Equipment and Support in 2007 and 2009, and then as Minister for International Defence and Security from 2008 to 2010.

Ann Taylor is currently a Member of the House of Lords and chairs its Constitution Committee. She is also a Trustee of the National Coal Mining Museum for England and a member of the Council of the University of Bradford.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: none.

Abroad: member of the Advisory Board of Thales UK PLC⁽¹⁾ and Chair of Council and Pro-Chancellor of the University of Bradford.

Other positions held by Ms Taylor in the last five years

In France: none.

Abroad: none.

ÉRIC TRAPPIER

(58)

Director recommended by the Industrial Partner

Member of the Governance and Remuneration Committee

Date of first appointment
19 May 2009

Current term expires
2022 AGM

Number of shares held
500 Thales shares

Born on 1 June 1960, Éric Trappier is a French citizen and a graduate of the École Sud Telecom (formerly Institut National Telecom).

He started his career in 1984 in the Technical Department of Dassault Aviation as Head of systems development for the ATL2 and Mirage 2000.

In 1991, he became Director of Sales in Asia (India), and in 1996, in the United Arab Emirates.

After serving as Head of Middle East & Africa in 2000 and Head of Military Exports in 2001, he became Executive Vice President, International in 2002.

In 2006, Éric Trappier became Executive Vice President, International of Dassault Aviation.

He was appointed Chairman & Chief Executive Officer of Dassault Aviation in January 2013.

He is an Officer of the French Legion of Honour and a Knight of the French National Order of Merit.

Appointments and other positions held in companies in France and abroad

Appointments held in other companies

In France: Chairman and Chief Executive Officer of Dassault Aviation⁽²⁾, Chairman of Gifas, Chairman of Cidef, Director of Sogitec Industries.

Abroad: Chairman of Dassault Falcon Jet Corporation (USA), Chairman of the ASD (Belgium), Co-Chairman and Director of Dassault Reliance Aerospace Limited (DRAL) (India) and Director of Dasbat Aviation LLC (United Arab Emirates).

Other positions held by Mr Trappier in the last five years

In France: Director-Manager of the Rafale International EIG, Manager of Dassault International (France) (SARL), First Vice Chairman of Gifas and Chairman of the ASD Defence Committee.

Abroad: Director and Chairman of Dassault International Inc. (USA).

⁽¹⁾ A Thales Group company.

⁽²⁾ Listed company.

MARIE-FRANÇOISE WALBAUM**(68)****Director recommended
by the Industrial Partner****First appointed**

17 September 2013

Current term expires

2022 AGM

Number of shares held

500 Thales shares

Born on 18 March 1950, Marie-Françoise Walbaum, a French citizen, is a graduate in Economics and Sociology from Paris X University.

She began her career at BNP Paribas in 1973 and held various posts in retail banking and credit analysis until 1981. From 1981 to 1994, she served as senior auditor of BNP's Inspectorate General, Chief Executive Officer for mutual funds and Chief Executive Officer of the brokerage firm Patrick Dubouzet SA. In 1994, Marie-Françoise Walbaum became Head of Listed and Unlisted Equity Investments and Private Equity Portfolio Manager at BNP Paribas, a firm she left in the summer of 2012 after a career spanning 39 years.

Appointments and other positions held in companies in France and abroad**Appointments held in other companies**

In France: Independent director of Esso⁽¹⁾ (and Chairman of the Audit Committee), FFP⁽¹⁾ (and member of the Finance and Audit Committee and the Governance, Appointments and Compensation Committee), Imerys⁽¹⁾ (and member of the Audit Committee, the Appointments Committee and the Compensation Committee), and member of the Supervisory Board of Isatis Capital.

Abroad: none.

Other positions held by Ms Walbaum in the last five years

In France: none.

Abroad: none.

4.1.1.2 Employee representatives**ANNE-MARIE HUNOT-SCHMIT****(54)****Director representing
employees****Member of the
Strategic & CSR Committee****Date of first appointment**

9 December 2016

Current term expires

8 December 2020

Number of shares held:

- 200 Thales shares;
- 48 Thales shares under the Group savings scheme.

Not required to hold Thales shares (Article L. 225-25, paragraph 3 of the French Commercial Code).

Born on 4 October 1964, Anne-Marie Hunot-Schmit is a French citizen and a graduate of the IAE Paris business school. After receiving a postgraduate degree in Applied Mathematics, she joined Dassault Electronique in 1987 as a software developer, where she filed the first patent for a ground collision avoidance system (GPWS/GCAS). In 1998, Ms Hunot-Schmit joined the first contract management team for the Mirage 2000-9 programmes.

In 2007, she began working at Thales' registered office, where she was responsible for international business ethics standards and subsequently became Head of the Price Control Department.

Since autumn 2016, she has been in charge of Financial Control for bids and projects within the Ground Transportation Business Unit.

List of appointments and other positions:**Appointments held in other companies**

In France: none.

Abroad: none.

Other positions held by Ms Hunot-Schmit in the last five years

In France: none.

Abroad: none.

(1) Listed company.

FRÉDÉRIQUE SAINTCT

(60)

Director representing employees

Member of the Audit and Accounts Committee

Member of the Governance and Remuneration Committee

Date of first appointment

9 December 2016

Current term expires

8 December 2020

Number of shares held

- 10 Thales shares;
- 20 Thales shares under the Group savings scheme.

Not required to hold Thales shares (Article L. 225-25, paragraph 3 of the French Commercial Code).

Born on 19 December 1958, Frédérique Saintct is a French citizen and holds a degree in Engineering from the École Centrale de Paris. In 1984, she began working for Aérospatiale Cannes, which became Alcatel in 1998, and in 2007, she joined Thales Alenia Space.

Frédérique Saintct has worked in various areas in the satellite business, including attitude control and mission analysis for telecommunications customers in Europe and abroad.

Since 2006, she is a technical expert for the In-orbit Operations division.

List of appointments and other positions:

Appointments held in other companies

In France: none.

Abroad: none.

Other positions held by Ms Saintct in the last five years

In France: none.

Abroad: none.

To the knowledge of Thales:

- there are no family ties between members of the Board of Directors;
- no Board member has been convicted of fraud in the last five years;
- no Board member has been involved in the last five years as a senior executive in a bankruptcy, receivership or liquidation, or has been charged and/or officially disciplined by statutory or regulatory authorities;
- no Board member has been barred in the last five years by a court from acting as a member of a body dedicated to the administration, management or supervision of an issuer, or from being involved in the management or running of such a company's affairs;
- no conflict of interest exists between the Board members' private interests and their duties to Thales.

4.1.2 Other persons attending Board meetings (without voting rights)

In addition to the Secretary of the Board of Directors and members of corporate management who may be invited by the Chairman to attend Board meetings, depending on the agenda, the following persons are invited to attend all Board meetings in an advisory capacity:

Representative of the French state's golden share

Joël Barre, 63, Engineer-General, Exceptional Class (Ingénieur Général de classe exceptionnelle), head of the DGA (Délégué Général pour l'Armement) French military procurement office.

Appointed by decree of the Minister of the Economy and Finance on 6 April 2018.

Representing the French state on the Thales Board of Directors in accordance with decree No. 97-190 of 4 March 1997 concerning the French state's golden share (see page 159) and pursuant to Article 10 of the Company's Articles of Association.

Government Commissioner

Paul Fouilland, 63, Comptroller General of Defence on special assignment (*Contrôleur Général des Armées en mission extraordinaire*).

Appointed Government Commissioner to Thales and its subsidiaries by decision of the Minister of Defence of 15 September 2014, under the statutory and regulatory provisions concerning defence contractors and companies engaged in the manufacture and sale of defence equipment.

Representative of the Central Works Council

Marielle Marichy, 55, Union representative.

Appointed by the Central Works Council as its representative on the Board of Directors of Thales, pursuant to Article L. 2323-65 of the French Labour Code.

The statutory auditors

The statutory auditors are invited to attend, at a minimum, the Board meetings relating to the audit or approval of the financial statements, as provided for by law. They may also be invited by the Chairman to attend other Board meetings when their presence could be of particular value to the discussion. The following were invited to Board meetings during the 2018 financial year:

- **Ernst & Young Audit**, represented by Philippe Diu, partner;
- **Mazars**, represented by Dominique Müller, partner.

4.2 CORPORATE GOVERNANCE

In accordance with French law, in 2008 the Company decided to refer voluntarily to the Corporate Governance Code for Listed Companies published by the Afep and Medef bodies, which was amended most

recently in June 2018 and can be viewed on the Afep website at <http://www.afep.com/publications/le-code-afep-medef-revise-de-2018/> or at the Company's registered office.

"Comply or explain" rule

The Company complies with the recommendations contained in the Afep-Medef code as amended in June 2018, except for those concerning:

Heading	Afep-Medef	Thales at 25/02/2019	Explanation
A. Independent directors (ratios):			
• Board of Directors	1/3 (controlled companies)	31%	The terms of the shareholders' agreement do not allow compliance with the ratios of the Afep-Medef code.
• Audit and Accounts Committee	2/3	1/3	
• Governance and Remuneration Committee	> 50%	1/3	
B. Succession plan for the Company representative (Chairman and CEO of Thales)	A Board Committee draws up a succession plan for the Chairman and CEO	No	Under the terms of the above-mentioned agreement, the appointment of the Chairman and CEO is decided by both shareholders (Public Sector and Dassault Aviation).

4.2.1 Composition and procedures for the organisation and operation of the Board of Directors

Restatement of the rules of the shareholders' agreement and composition of the Board of Directors

The Company is a *société anonyme* (French public limited company) with a Board of Directors. Under the terms of the shareholders' agreement between the Public Sector and the Industrial Partner (Dassault Aviation), as published by the French financial markets authority (*Autorité des marchés financiers* – AMF), the Board of Directors is composed of 16 directors, 14 of whom are appointed by the General Meeting and 2 of whom are appointed by the trade unions, in accordance with the law (Article L. 225-27 *et seq.* of the French Commercial Code) and the Articles of Association (Article 10).

Of the 14 directors appointed by the General Meeting, four are "external directors" selected jointly by the Public Sector and Dassault Aviation, one is the representative of employee shareholders, and the others are recommended to the General Meeting by the Public Sector (five) and by Dassault Aviation (four).

The shareholders' agreement also requires the Chairman and CEO to be chosen based on the joint proposal of the Public Sector and Dassault Aviation (or the Chairman of the Board and the Chief Executive Officer if the separation of these roles has been jointly agreed by the two shareholders) and at least one director representing each of the parties to sit on each of the Board Committees.

➤ **SUMMARY OF INFORMATION RELATING TO DIRECTORS**
(PREPARED IN ACCORDANCE WITH ANNEX III OF THE AFEP-MEDEF CODE, AS AMENDED IN JUNE 2018)

Directors at 31 December 2018	Age	Gender	Nationality	Number of Thales shares	Number of appointments held in other listed companies
Appointed by the Annual General Meeting (14)					
Recommended by the Public Sector^(a) (5)					
Patrice Caine, Chairman & Chief Executive Officer	48	M	French	9,473	1
Laurence Broseta ^(d)	50	F	French	700	1
Bernard Fontana ^(d)	57	M	French	^(d)	—
French state ^(a) , represented by Odile Renaud-Basso ^(b) (appointed by decree – Article 4 of Order No. 2014-948)	53	F	French	2,060	—
Delphine de Sahuguet d'Amarzit ^(d)	45	F	French	^(d)	—
Recommended by the Industrial Partner (Dassault Aviation)^(a) (4)					
Charles Edelstenne	80	M	French	509	3
Loïc Segalen	58	M	French	509	1
Éric Trappier	58	M	French	500	1
Marie-Françoise Walbaum	68	F	French	500	3
Representative of employee shareholders (1)					
Philippe Lépinay	65	M	French	2,475	—
External directors (4)					
Yannick d'Escatha Independent director ^(c)	70	M	French	500	—
Armelle de Madre Independent director ^(c)	48	F	French and Dutch	500	—
Anne-Claire Taittinger Independent director ^(c)	69	F	French	612	—
Ann Taylor Independent director ^(c)	71	F	British	500	—
Appointed by the trade unions (2)					
Anne-Marie Hunot-Schmit	54	F	French	248	—
Frédérique Saint	60	F	French	30	—

(a) See shareholding and voting rights in section 6.2.1.2 (page 154).

(b) Odile Renaud-Basso, Permanent Representative of the French state and director, holds no Thales shares.

(c) Within the meaning of the Afep-Medef code as amended in June 2018.

(d) Proposed by the French state—Article 6 of Order No. 2014-948).

➤ **SUMMARY OF INFORMATION RELATING TO DIRECTORS**
(PREPARED IN ACCORDANCE WITH ANNEX III OF THE AFEP-MEDEF CODE, AS AMENDED IN JUNE 2018) (CONT.)

Directors at 31 December 2018	First appointment	Current term		Committees*			Attendance 2018			
		Starts	Ends	S&C	A&A	G&R	Number of meetings taken into account and attendance percentage ^(e)			
							Boards		Committees	
Appointed by the Annual General Meeting (14)										
Recommended by the Public Sector (5)										
Patrice Caine, Chairman & Chief Executive Officer	23/12/2014	23/05/2018	2022 OGM	<div></div>			10	100%	3	100%
Laurence Broseta ^(g)	14/05/2014	17/05/2017	2021 OGM				10	80%	n/a	n/a
Bernard Fontana ^(b)	30/01/2018	30/01/2018	2021 OGM		<div></div>		10	100%	5	100%
French state, represented by Odile Renaud-Basso (appointed by decree – Article 4 of Order No. 2014-948) ^(c)	19/07/2017	19/07/2017	2021 OGM	<div></div>		<div></div>	10	80%	8	87,5%
Delphine de Sahuguet d’Amarzit ^(d)	12/04/2018	12/04/2018	2021 OGM				6	100%	n/a	n/a
Recommended by the Industrial Partner (Dassault Aviation) (4)										
Charles Edelstenne	19/05/2009	23/05/2018	2022 OGM	<div></div>			10	90%	3	100%
Loïk Segalen	19/05/2009	23/05/2018	2022 OGM		<div></div>		10	100%	5	100%
Éric Trappier	19/05/2009	23/05/2018	2022 OGM			<div></div>	10	90%	5	100%
Marie-Françoise Walbaum	17/09/2013	23/05/2018	2022 OGM				10	80%	n/a	n/a
Representative of employee shareholders (1)										
Philippe Lépinay	01/04/2007	17/05/2017	2021 OGM	<div></div>			10	100%	3	67%
External directors (4)										
Yannick d’Escatha Independent director ^(e)	19/05/2009	18/05/2016	2020 OGM			<div></div>	10	100%	5	100%
Armelle de Madre ^(f) Independent director ^(e)	28/06/2017	28/06/2017	2019 OGM				10	100%	n/a	n/a
Anne-Claire Taittinger Independent director ^(e)	15/05/2012	23/05/2018	2022 OGM		<div></div>		10	100%	5	100%
Ann Taylor Independent director ^(e)	15/05/2012	23/05/2018	2022 OGM				10	60%	n/a	n/a
Appointed by the trade unions (2)										
Anne-Marie Hunot-Schmit	09/12/2016	09/12/2016	08/12/2020	<div></div>			10	100%	3	100%
Frédérique Saint	09/12/2016	09/12/2016	08/12/2020		<div></div>	<div></div>	10	100%	10	100%

(a) Director whose mandate expires on the date of the General Meeting of 15 May 2019 and whose reappointment will be proposed at this meeting.

(b) Co-opted on 30 January 2018 on the recommendation of the State, in application of Article 6 of Order No. 2014-948 of 20 August 2014 relating to governance and capital transactions of state-owned enterprises.

(c) Odile Renaud-Basso, who resigned as a director on 29 January 2018, was confirmed as representative of the State, which was co-opted in her place on 30 January 2018, on the recommendation made in application of Article 4 of Order No. 2014-948.

(d) Co-opted on 12 April 2018 on the recommendation of the State, in application of Article 6 of Order No. 2014-948 of 20 August 2014 relating to governance and capital transactions of state-owned enterprises.

(e) Attendance is calculated in relation to the total number of meetings during which the director was in office.

(f) Within the meaning of the Afep-Medef code as amended in June 2018.

(g) Proposed by the French State (Article 6 of Order No. 2014-948).

* **Committee:** Strategic and CSR (S&C), Audit and Accounts (A&A) and Governance & Remuneration (G&R).
Status: ■ Member, ■ Chair.

➤ **CHANGES IN THE COMPOSITION OF THE BOARD OF DIRECTORS AND COMMITTEES DURING THE 2018 FINANCIAL YEAR (PREPARED IN ACCORDANCE WITH ANNEX III OF THE AFEP-MEDEF CODE, AS AMENDED IN JUNE 2018)**

	Departures	Appointments	Reappointments
Board of Directors	—	Bernard Fontana Delphine de Sahuguet d'Amarzit	Patrice Caine (Chairman) Charles Edelstenne Loïk Segalen Marie-Françoise Walbaum Éric Trappier Anne-Claire Taittinger Ann Taylor
Strategic and Corporate Social Responsibility Committee	—		Patrice Caine (Chairman) Charles Edelstenne
Audit and Accounts Committee	—	Bernard Fontana	Anne-Claire Taittinger (Chair) Loïk Segalen
Governance and Remuneration Committee	—		Éric Trappier

Nota : Odile Renaud-Basso, who resigned as a director on 29 January 2018, was confirmed as representative of the State, which was co-opted in her place on 30 January 2018, on the recommendation made in application of Article 4 of Order No. 2014-948.

In accordance with the amended Afep-Medef code and as recommended by the AMF, the biographies in section 4.1 list the offices held by members of the Board of Directors in Group companies and/or listed companies, in France or abroad, and include information relating to their other activities, areas of expertise or experience.

The term of office of directors was reduced from six to four years by the General Meeting of 24 May 2013, effective from the 2014 General Meeting.

The average age of the directors at 31 December 2018 was 60.2. On that date, in the absence of a specific provision in the Articles of Association, the age of the directors was governed by common law:

- the number of directors over the age of 70 may not exceed one-third of the directors in office, in accordance with Article L. 225-19 paragraph 2 of the French Commercial Code;
- the age limit for the Chairman is 65, in accordance with Article L. 225-48 of the French Commercial Code.

Governance procedures: non-separation

The Company is a *société anonyme* (French public limited company) with a Board of Directors and there is no separation of the positions of Chairman of the Board of Directors and Chief Executive Officer.

On 23 May 2018, upon the reappointment of Patrice Caine as Chairman and CEO, the Board of Directors ruled that the absence of separation did not affect the active and efficient exercise of its monitoring and supervisory functions, considering that the responsibilities of the Board of Directors, the role of each of its Committees, and the limits applying to the powers of the Chairman and CEO are clearly established (see the extract from section II of the Board's rules of procedure and section 4.2.6 below).

The Chairman and CEO's compensation is reviewed by a Committee and later by the Board of Directors in the absence of the concerned party.

During Board visits to Group sites, and in particular during the Board of Directors' annual review of its strategic plan, directors may organise meetings without any senior executives in attendance, including the Chairman and CEO, Thales' sole Company representative.

Increasing the number of women on the Board of Directors

The objectives set by French law No. 2011-103 of 27 January 2011 on gender balance on corporate boards of directors and the monitoring of professional equality (both men and women must represent a minimum of 40% of the directors appointed at the General Meeting, excluding employee representative directors) were achieved on 29 November 2016 (6 women out of 14 directors, or 43%).

On 31 December 2018, the percentage of women on the Board of Directors was 50% (7 out of 14 directors), excluding employee representatives, and 56% (9 out of 16 directors) when account is taken of employee representative directors.

Independence of directors

According to the rules of procedure, the Board of Directors, based on the report of the Governance and Remuneration Committee, conducted on 25 February 2019 its annual review of the situation of its members with reference to the definition of and criteria for independent directors, as specified by the amended Afep-Medef code.

The Board of Directors has decided to retain the strict approach adopted in previous years: directors appointed by the General Meeting on the recommendation of either a "Public Sector" or "Industrial Partner" shareholder, or a category of shareholders (employees), or directors appointed by the trade unions, cannot be considered independent within the meaning of the amended Afep-Medef code. As part of this approach, only directors who qualify as "external directors" under the terms of the shareholders' agreement may be qualified as independent directors (i.e. no more than 4 out of 16).

The Governance and Remuneration Committee carefully examined the responses it received to a detailed questionnaire (covering all the independence criteria defined by the amended Afep-Medef code) that it updated and sent out to each "external director" in January 2019.

Among these, only Armelle de Madre, as Director of Human Resources of Arkadin, performs a professional activity in a company that has business relationships with Thales. Arkadin and the NTT Group companies to which Arkadin belongs provide Thales with miscellaneous telephony, event organisation and network integration services.

The Committee noted that the total sum of revenues made by Arkadin and NTT Group companies with Thales was significantly below the threshold of 1% of the revenues of Thales, on the one hand, and of Arkadin and of relevant NTT Group companies on the other hand; the threshold of 1% was set by the Board as a threshold of materiality in assessing whether the business relationship was significant or not.

Given the responses to the other sections of the questionnaire, the Committee concluded that, on this basis, nothing indicated that Armelle de Madre's judgement would be compromised while carrying out her duties as a director of Thales and that nothing may keep her from being qualified as an independent director by the Board.

The three other "external directors" stated that they have no business relationship with either the Company or the Group. In the Committee's opinion, the questionnaires did not contain any responses that call into question these individuals' qualification as independent director.

The table below shows the independent directors' fulfilment of the independence criteria set out in the Afep-Medef code.

	Yannick d'Escatha	Armelle de Madre	Anne-Claire Taittinger	Ann Taylor
Criterion 1 Employee or executive officer within the previous five years	✓	✓	✓	✓
Criterion 2 Cross-directorships	✓	✓	✓	✓
Criterion 3 Significant business relationships	✓	✓	✓	✓
Criterion 4 Family ties	✓	✓	✓	✓
Criterion 5 Auditor	✓	✓	✓	✓
Criterion 6 Period of office exceeding 12 years	✓	✓	✓	✓
Criterion 7 Status of non-executive Company representative	✓	✓	✓	✓
Criterion 8 Status of major shareholder	✓	✓	✓	✓

In conclusion, on the recommendation of the Governance and Remuneration Committee, the Board of Directors decided to qualify Armelle de Madre, Anne-Claire Taittinger, Ann Taylor and Yannick d'Escatha as independent directors.

As of 25 February 2019, the closing date of the 2018 financial statements, the Board of Directors had four independent directors, or 31% of its members (excluding directors representing employees and employee shareholders, as stipulated by the amended Afep-Medef code). The proportion is, however, slightly less than the one-third recommended for controlled companies.

Rules of procedure for the Board of Directors and its Committees

The Board's rules of procedure, adopted in July 2004 and amended most recently by the Board on 27 November 2018, do not supersede the provisions of the law or of the Company's Articles of Association applicable to the Board and its Committees, or the provisions of the Code of Ethics or the Code on Insider Trading, certain provisions of which apply to directors, since together these rules represent a code of professional conduct for directors (see "Prevention of insider trading" below).

In addition to the specific provisions of the shareholders' agreement, the Board's rules of procedure include best practices in respect of corporate governance, particularly those contained in the aforementioned Afep-Medef code. The Governance and Remuneration Committee is in charge of periodic updates and submits for approval to the Board the revisions that it deems necessary.

The Board's rules of procedure are divided into five sections:

I) Members of the Board of Directors (Board membership, independence, availability, primary duty, transparency, confidentiality and compensation)

The rules of procedure stipulate that:

- the members of the Board of Directors must inform the Chairman of all management or administrative positions that they hold;
- each Company representative must obtain the opinion of the Board before accepting a new corporate office in a listed company;
- directors must inform the Board of any conflicts of interest, even potential, and must, in such cases, refrain from taking part in discussions or voting on the corresponding matter.

Directors must also inform the Chairman of any proposed agreement involving them directly or indirectly which may, pursuant to the French Commercial Code, need to receive the prior authorisation of the Board of Directors.

In addition, the directors have individually issued a statement regarding the following points:

- no Board member has any family ties with another member of the Board of Directors or any members of corporate management;
- no Board member has been convicted of fraud in the last five years;
- no Board member has been involved in the last five years as a senior executive in a bankruptcy, receivership or liquidation, or has been charged and/or officially disciplined by statutory or regulatory authorities;

- no Board member has been barred in the last five years by a court from acting as a member of a body dedicated to the administration, management or supervision of an issuer, or from being involved in the management or running of such a company's affairs;
- no conflict of interest exists between the private interests of each of the Board members and their duties with regard to Thales.

II) Powers of the Board of Directors (representation and corporate interests, specific powers and shareholders' agreement)

The annual budget, the strategic plan, the appointment and dismissal of the Chairman and CEO (or the appointment of a Chairman and a Chief Executive Officer in the event of separation or potential separation of these positions), acquisitions or disposals of shareholdings or assets with a value exceeding €150 million (as total commitments or as revenues), as well as strategic alliance agreements and agreements on technological and industrial cooperation, are automatically submitted to the Board for approval, it being understood that the shareholders' agreement stipulates that such decisions must also be approved by the majority of directors representing the Industrial Partner (Dassault Aviation).

Any transactions exceeding €50 million are also submitted to the Board for approval if they involve a change in the Group's strategy as previously approved by the Board.

III) Board information (communication and training)

In particular, it is expected that:

- Board documents shall be sent to participants in a timely manner;
- the French State representative responsible for the golden share, the Government Commissioner and the representative of the Central Works Council shall receive all documents sent to directors and are invited to attend Board meetings;
- new directors shall receive, upon their appointment, the appropriate documents for their office and shall attend a briefing on the Company, its organisational structure and its business, given by the Group's senior executives. Thereafter, each director may request additional training.

IV) Board Committees (formation and responsibilities, organisation, information, Audit and Accounts Committee, Governance and Remuneration Committee, Strategic and Corporate Social Responsibility Committee)

It is stipulated that, in addition to the responsibilities of each Committee (see relevant sections below), each Committee is entitled to ask corporate management for any additional information that it deems necessary for the performance of its duties, and may, in exceptional cases, ask the Board of Directors to hire external consultants.

V) Functioning of the Board of Directors (meetings, attendance and representation, annual assessment and updating the rules of procedure)

This topic is covered in the minutes of the Board of Directors' activities, as required by law, in section 4.2.2 below.

Prevention of insider trading

In order to take into account any applicable regulations and the recommendations contained in the AMF guide, Thales has implemented a system of "blackout periods" (no-trading periods): in addition to the periods relating to the annual and half-yearly financial statements (at least 30 calendar days, in each case), two periods of at least 15 days each have been introduced for quarterly reporting (first and third quarters). In each case, the period includes the day following the publication of the financial press release.

The financial calendar for the following six months is published on the Company's website after the third quarter financial press release (including the date of the General Meeting). The calendar is updated for the whole year when the previous year's annual results are published.

The directors have been informed by the Company of their obligation to refrain from carrying out any transactions on Thales shares and related financial instruments during the blackout periods relating to the annual and half-yearly financial statements as well as the quarterly financial information, as defined by the Company, and when they have any insider information (within the meaning of the applicable regulations).

The directors have also been informed of any disclosure requirements with regard to the AMF and the Company concerning the transactions mentioned in Article L. 621-18-2 of the French Monetary and Financial Code, and of their obligation to provide the Company with a list of people to whom they are closely connected and inform said people of their own obligations.

Directors may, if they wish, consult the Company Secretary or the Group General Counsel prior to dealing in any shares.

Obligation to hold a minimum number of shares

In application of Article 10.3 of the Articles of Association, each director must hold at least 500 shares, unless legally exempt. The Chairman and CEO is also subject to an obligation to retain shares that they hold as part of their long-term compensation (see section 4.4.2).

Summary of the transactions mentioned in Article L. 621-18-2 of the French Monetary and Financial Code carried out in 2018

The summary statement (provided for in Article 223-26 of the AMF General Regulations) of the transactions mentioned in Article L. 621-18-2 of the French Monetary and Financial Code carried out in 2018 by persons required to file a disclosure can be found in section 4.6, page 99.

4.2.2 Report on the Board of Directors' activities during the 2018 financial year

Number of meetings and attendance rate

The Board of Directors met ten times in 2018, including three times away from head office. The average attendance rate for directors was 93%. The individual attendance rates are specified in the table on page 75.

The statutory auditors are invited to meetings relating to the audit of the half-year and annual financial statements. In addition, they may be invited to other Board meetings when a report on the work carried out by the Audit and Accounts Committee is presented and when their attendance may be of particular value to the discussion.

Key topics covered

In addition to recurring items within the remit of the Board of Directors (annual budget and update of forecasts, strategic plan, preparation of annual consolidated and corporate financial statements, review of the consolidated half-year financial statements, calculation of the Chairman and CEO's compensation and indication of the quantitative and qualitative criteria for his variable compensation, dividend and interim dividend proposal, approval of Annual Meeting documents and notice

of the General Meeting, prior approval if applicable for related-party commitments or agreements, annual assessment of the operating procedures of the Board and its Committees, various delegations of powers to the Chairman and CEO and reporting on the use of such powers, annual review of the independence of the directors, etc.), the agendas of these meetings included the following items in 2018, in some cases with reports from the relevant Board Committee:

- the monitoring of strategic decisions, including recent acquisitions;
- the monitoring of the process to acquire Gemalto, announced in December 2017, and preparation for Gemalto's subsequent consolidation;
- the revision of the Board's rules of procedure;
- the introduction of an annual long-term incentive (LTI) plan with performance conditions, applicable to Group employees;
- three-year assessment of the Group's pension commitments in the United Kingdom and the corresponding financing plan.

4.2.3 Preparatory work for Board meetings

Information for directors

Board documents

Each year, a provisional timetable for meetings is drafted halfway through the year for the following year.

The Board's rules of procedure have set the period for the notice of meeting and provision of documents at five working days, unless this is impossible or there is an emergency, in which case three days is considered a desirable minimum.

Each notice includes the agenda and meeting documents (or at least the main points, if the documents cannot be completed at the time of dispatch) and the draft minutes of the previous meeting, usually sent out initially within one month of each meeting. In some cases, additional material is sent to directors after the notice of meeting, or may even be handed out during the meeting, if the matter is urgent.

The directors are also sent a press review and a selection of financial analyses relating to the Company. National press releases are sent to them directly by e-mail.

Since 2015, the prior sending of documents by e-mail, which can be accessed on dedicated secure tablets, has enabled the time frame for provision to be optimised; the documents are then sent out in paper form to directors based on their request.

Additional training

In accordance with the Board's rules of procedure, directors may ask to receive additional training.

Organisation and operation of Board Committees

The Board of Directors has three Committees: an Audit and Accounts Committee, a Governance and Remuneration Committee and a Strategic and Corporate Social Responsibility Committee.

Audit and Accounts Committee

At 31 December 2018, the powers and duties of this Committee, which are reproduced in the Board's rules of procedure (Article 16), reflect, on the whole, the framework set out in the Order of 8 December 2008 implementing Directive 2006/43/EC and are also compliant with EU Regulation No. 537/2014 of 16 April 2014:

"The Audit and Accounts Committee acts under the responsibility of the Board of Directors. Without prejudice to the powers of the Board of Directors, it is specifically responsible for the following tasks:

- 1) it monitors the process of drawing up the financial information and, where applicable, formulates recommendations to guarantee its integrity;
- 2) it monitors the effectiveness of internal control and risk management systems, as well as the internal audit where applicable, with regard to procedures relating to the preparation and processing of the accounting, financial and non-financial information;
- 3) it supervises the selection procedure for the statutory auditors and issues a recommendation to the Board of Directors on the statutory auditors proposed for appointment by the General Meeting, including the renewal of their mandate;
- 4) it monitors fulfilment by the statutory auditors of their mission, taking account of the findings and conclusions of the Haut Conseil du Commissariat aux Comptes (Audit Office Control Board) following audits performed;
- 5) it ensures compliance by the statutory auditors with the terms and conditions of independence prescribed by current regulations;
- 6) it approves, within the framework authorised by the Board of Directors, the provision by the statutory auditors or members of their respective networks, of services other than the certification of the financial statements of the Company and the companies that it controls directly and indirectly. It reviews and validates related procedures and ensures their compliance.

It consults the statutory auditors on the following:

- 1) their general programme of work as well as the various sample tests they have performed;
- 2) changes that they believe should be made to the financial statements to be published or to other accounting documents, making any relevant comments on the assessment methods used in their preparation;
- 3) any irregularities and inaccuracies they may have discovered;
- 4) conclusions resulting from the aforementioned comments and adjustments to the profits for the period compared to those of the previous period;
- 5) risks to their independence and the safeguards applied to mitigate these risks;
- 6) significant internal control weaknesses they may have identified, as regards procedures relating to the preparation and processing of accounting and financial information.

It receives from them each year:

- 1) a statement of independence;
- 2) an update of the information provided for their appointment, detailing the services provided by members of the network to which the statutory auditors belong, as well as services other than the certification of the financial statements that they have provided;
- 3) the additional report under Article 11 of EU Regulation No. 537/2014.

Each year it examines the budget for professional fees for the statutory auditors. It reviews and analyses the professional fees paid to the statutory auditors for the preceding financial year.

The Committee relies in particular, for performing its duties, on the work of the Finance Department and the Internal Audit department. It approves the annual programme of the Internal Audit department and examines the activity reports.

It reports regularly to the Board of Directors on its work and the results of its mission to certify the financial statements, the way in which this mission contributed to the integrity of the financial information and the role that it played in this process. It informs the Board of Directors immediately of any problems encountered.

In addition, since 2010, with reference to the final AMF Audit Committee report of 22 July 2010, Committee members have been able to have a discussion with the statutory auditors at the end of each meeting without any meeting secretary or Thales representatives being present.

On 31 December 2018, the members of the Committee were:

- Anne-Claire Taittinger, Chairman and independent director;
- Bernard Fontana;
- Frédérique Saint, director representing employees;
- Loïc Segalen.

The composition of the Audit and Accounts Committee is consistent with the provisions of the French Commercial Code: the Committee members are all directors and one director, the Chair of the Committee, in addition to being qualified as an independent director, has the requisite financial, accounting and statutory audit expertise (see biography of Anne-Claire Taittinger on page 69).

However, the Committee is not composed of two thirds independent directors, as recommended by the Afep-Medef code, but only one-third (note that employee director Frédérique Saint was not taken into account for this calculation). Under the shareholders' agreement, a representative of each of the two shareholders of the agreement sits on each Committee. In the case of the Audit and Accounts Committee, the representatives are Bernard Fontana, appointed on the recommendation of the Public Sector, and Loïc Segalen, appointed on the recommendation of Dassault Aviation.

The Committee met five times in 2018, with an attendance rate of 100%.

The statutory auditors, invited to all Committee meetings, are involved in all discussions, except when there is a conflict of interest (e.g. during a review of the appointment of statutory auditors or renewal of their terms of office). Twice a year, they submit their report on the audit of the accounts (annual and half-year), and specify the accounting options used and the highlights of their audit of the financial statements.

The Senior Executive Vice President, Finance and Information Systems, the Company Secretary and the director of Audit, Risks & Internal Control are invited to all meetings, as is the Group Director of Financial Control and, periodically and depending on the agenda, other representatives of the Finance Department and the Group General Counsel.

In addition to the annual and half-year financial statements, in 2018 the Committee also reviewed:

- the execution of difficult contracts and their accounting implications;
- the follow-up of the main disputes;
- the external audit plan and statutory auditors' fees;
- the organisation of internal control, updates to the risk mapping and assessment of the implementation of the annual audit plan;
- the audit plan for 2019;
- the independence of a statutory auditor in view of the rotation of their partners who sign the Group's financial statements;

- the implementation of IFRS 16 (lease accounting);
- the follow-up of recent acquisitions;
- the three-year assessment of the Group's pension commitments in the United Kingdom and the corresponding financing plan;
- the Chairman's report for 2017 covering internal control and risk management.

During meetings more specifically devoted to audit and internal control, the Committee reviewed the reports of the Audit, Risks & Internal Control Department. It laid out its recommendations for the follow-up on assignments.

The Committee also reviewed the financial press releases on the Company's results.

Following the meetings, which, in the case of the closing or examination of the financial statements, are held at least two (and wherever possible three) days prior to the Board meeting, a written report is produced and submitted to all directors at the next Board meeting. Pursuant to the AMF recommendation in its report on the audit committee of 22 July 2010, this report is systematically included or attached to the minutes of the next Board meeting after being approved by the Committee. In addition, the Committee proceedings are recorded in the minutes, which may be more detailed.

Governance and Remuneration Committee

In compliance with section 17 of the Board's rules of procedure, the Governance and Remuneration Committee has the task of examining:

- the compensation policy for the Company's senior executives;
- the compensation of the Chairman and CEO and any related-party commitment concerning him, the compensation of the directors (attendance fees) and, if applicable, that of other Company representatives;
- the proposed long-term incentive (LTI) plans, which are submitted to the Board;
- the proposed employee share ownership schemes;
- candidates for external directors, regarding whom the two major shareholders hold consultations in accordance with the provisions of the aforementioned shareholders' agreement;
- at least once a year, the independence of the directors; and
- in general, any issues relating to the application of the Afep-Medef Corporate Governance Code for Listed Companies.

The Committee is also responsible for preparing the Board's assessment of its own performance (see section 4.2.4 below) and reporting on it to the Board in order to facilitate discussion.

On 31 December 2018, the members of the Committee were:

- Yannick d'Escaatha, Chairman and independent director;
- Frédérique Saint, director representing employees;
- Éric Trappier;
- Odile Renaud-Basso.

The Committee met five times in 2018, with an attendance rate of 93%.

The ratio of independent directors recommended by the Afep-Medef code (at least half) is not met, because it currently stands at one-third (the director representing employees, Frédérique Saint, is not included in this calculation pursuant to the Afep-Medef code). Under the shareholders' agreement, a representative of each of the two shareholders of the agreement sits on each Committee. In the case of the Governance and Remuneration Committee, the representatives are Odile Renaud-Basso, representative of the State, appointed on the recommendation of the Public Sector, and Éric Trappier, appointed on the recommendation of Dassault Aviation.

The Senior Executive Vice President, Human Resources, and the Company Secretary are invited to all Committee meetings, and the Chairman and CEO is invited to some of the meetings, depending on the agenda or in cases where his presence could be of particular value to the discussion.

The items reviewed by the Committee in 2018 included:

- the Group's long-term incentive (LTI) policy and the preparation of a free share plan with performance conditions according to the level of responsibility of the beneficiaries;

- the total compensation of the Chairman and CEO (*ex post* 2017 and compensation policy for 2018);
- the preparation of the consolidation of Gemalto in terms of compensation policy;
- the proposed employee share ownership offer for 2019;
- the revision of the Board's rules of procedure;
- the independence of the directors;
- the terms for the annual assessment of the performance of the Board of Directors and the related report presented to the Board; and
- the Board's report on corporate governance.

For all of these items, the Committee presented its recommendations to the Board: each meeting was systematically recorded in minutes issued to all directors at the following Board meeting. In addition, the Committee proceedings are recorded in the minutes, which may be more detailed.

Strategic and Corporate Social Responsibility Committee

In compliance with the Board's rules of procedure, the Strategic and Corporate Social Responsibility (CSR) Committee's main tasks are to assess the Group's strategy in its key business segments, and in particular:

- to examine the Group's strategic approaches in each of its major fields of operation, before these are submitted to the Board of Directors;
- to analyse the framework for submission of the budget and the three-year rolling plan to the Board, and to examine the proposed annual budget in the context of this plan;
- to analyse major acquisitions and asset disposal plans (in excess of €150 million), as well as proposed strategic agreements or partnerships.

The Board of Directors, at its meeting on 27 February 2017, decided to add corporate social responsibility to these duties, pursuant to the Afep-Medef code as amended in November 2016 (see section 3, "The Board of Directors and Strategy"). As a result of these new duties, the Committee is henceforth known as the "Strategic and Corporate Social Responsibility Committee".

At its meeting of 27 November 2018, the Board furthermore amended its rules of procedure so that tasks relating to due diligence on non-financial information would be shared between the Strategic and Corporate Social Responsibility Committee and the Audit and Accounts Committee. The rules now specify that the Strategic and Corporate Social Responsibility Committee shall be tasked with reviewing the Group's annual non-financial performance statement prior to its approval by the Board, and that the Audit and Accounts Committee shall check that the systems and procedures for preparing and processing this type of information are effective.

As at 31 December 2018, the Strategic and Corporate Social Responsibility Committee comprised:

- Patrice Caine, Chairman;
- Charles Edelstenne;
- Anne-Marie Hunot-Schmit, director representing employees;
- Philippe Lépinay, director representing employee shareholders;
- Odile Renaud-Basso.

For this type of committee, no conditions are set for the independence of directors, either by law or by the Afep-Medef code.

The Committee met three times in 2018 with a 93% attendance rate, mainly to examine the 2018 budget, to follow up on the planned acquisition of Gemalto, and to review other strategic decisions. At a special meeting, the Committee furthermore took stock of and discussed the challenges of the Group's CSR strategy and reviewed the draft Corporate Responsibility Report for the 2017 financial year.

In 2018, the Senior Executive Vice President of Finance & Information Systems, the Company Secretary, the Senior Executive Vice President of Operations & Performance and the Executive Vice President of Strategy were invited to meetings by the Chair of the Committee. A written report was made for each meeting and distributed to all directors at the following Board meeting, or an oral account of the meeting was presented by the Chairman and CEO, the Committee Chairman, with supporting documentation as applicable. Meetings are recorded in minutes, which may be more detailed.

4.2.4 Assessment of the Board's performance

The Board assesses its performance each year either by means of a formal self-assessment or an external assessment. In either case, the assessment is followed by a discussion with the Governance and Remuneration Committee and then the Board.

At the end of 2017, the Board arranged for an external assessment of its performance. The results were included in the report on corporate governance for that financial year.

In 2018, the Board decided to conduct a formal self-assessment based on individual interviews between the directors and the Company Secretary according to an interview guide prepared in consultation with the Chairman of the Governance and Remuneration Committee.

At the end of the assessment process, the directors unanimously agreed that the Board and its Committees were performing well. Two-thirds of them deemed performance to have improved since 2017.

The directors also made note of the value of the many opportunities they were given to interact with the management team. They particularly appreciated the annual strategy seminar and the Digital Factory tour, which gave them an opportunity to learn more about the Groups' concrete challenges.

In general, the directors noted the improvement in the timeliness of document availability and the improvements made to the Committees' reports in 2018.

In addition, the self-assessment revealed that the individual contributions of directors to the work of the Board of Directors and its Committees were satisfactory.

Lastly, the directors underscored the fact that the recommendations of the 2017 external assessment had been taken into account and suggested some areas for improvement for 2019, such as regularly analysing benchmarks, having more in-depth discussions about strategy and reviewing the methodology for succession plans for Executive Committee members.

4.2.5 Diversity policy of the Board of Directors and gender balance on management bodies

Diversity policy of the Board of Directors and its Committees

When assessing the performance of the Board and its Committees in 2018, the directors assessed the achievement of the Board's diversity targets first approved at its meeting of 5 March 2018, and how they might change in 2019.

Diversity target	Findings from 2018	Possible reassessment of the target for 2019
Varied and complementary expertise and experience within the Board	By virtue of their experience, the directors possess skills in all of the Group's business sectors (aerospace, defence, space, transport, digital technology) as well as in key cross-disciplinary areas such as finance, industry and human resources.	The directors suggested that the Board might want to seek candidates with international experience for future appointments.
A balanced representation of men and women on the Board and its Committees	This target was considered met, given that 50% of Board members were men and 50% were women (excluding the directors representing employees), the percentage of women members rising to 56% when the directors representing employees were taken into account. There is also gender balance on the Committees.	Target unchanged
Balance in terms of seniority of directors	This target was considered met, given the balanced representation on the Board of Directors with less than four years' seniority, four to eight years' seniority, and eight to 12 years' seniority.	Target unchanged

The Board furthermore reiterated that these diversity targets should be taken into consideration when it comes to complying with the rules of the shareholders' agreement regarding the composition of the Board and its Committees.

Gender balance on management bodies

The Executive Committee established with Corporate Management is composed of two women and eleven men. Women thus represent 15.4% of the Committee's membership. This composition did not change in 2018.

In the 2018 rankings for best representation of women on management bodies (boards of directors, compensation and appointment committees, executive committees, top 100 managers) drawn up by consulting firm Ethics & Boards in partnership with France's State secretariat for gender equality, Thales ranks in the top third of SBF 120 companies, all sectors combined. With regard to the representation of women on the Executive Committee, it ranks in the middle.

At the end of 2018, women represented 16.5% (versus 15.6% in 2017) of employees in the most senior positions, i.e. grades 10 to 12 which account for 13% of the Group's total workforce. This population, the percentage of which slightly exceeds that provided for in Article

L. 225-37-4 paragraph 6 of the French Commercial Code (10%), has been selected for reasons of uniformity and consistency.

To create the conditions for greater gender diversity in the positions of highest responsibility, the Group has set itself the following goals:

- increase the percentage of women in senior positions (grades 10 to 12) to 30%;
- ensure that each Global Business Unit, business line and Key Country Management Committee has at least three female members. This proportion has improved considerably in the last two years. At the end of 2018, 49% of Group committees had at least three female members, versus 26% at the end of 2016.

A range of initiatives designed to promote gender diversity have contributed to the achievement of these goals. They include education about stereotypes and unconscious bias, network initiatives for gender equality, female leadership development and mentoring programmes, and participation in the Women's Forum.

These commitments and achievements are published in the Group's 2018 Non-Financial Performance Statement, approved by the Board of Directors on the recommendation of its Strategic and Corporate Social Responsibility Committee and provided in section 5.4.2.

4.2.6 Restrictions to the Chief Executive Officer's powers

Since 23 December 2014, Patrice Caine has served as Chairman and CEO, with the confirmation of the principle of non-separation at the Board meeting held on 23 May 2018, with no limitation of powers other than those stipulated in the applicable legislation with respect to the specific powers of the Board of Directors or the Annual General Meeting.

The powers of the Chief Executive Officer are furthermore restricted by the Board's rules of procedure which stipulate, as mentioned in section 4.2.1 above, that any acquisitions or disposals exceeding €150 million, or any transaction exceeding €50 million but potentially impacting the Group strategy, the fulfilment of which involves a change in the Group's strategy, must be automatically submitted for Board approval. These restrictions were confirmed without amendment by the Board of Directors when the Chairman and CEO was reappointed on 23 May 2018.

4.2.7 Other information

Notice of Annual General Meetings and conditions for attendance

All shareholders, regardless of the number of shares they own, are entitled to take part in Annual General Meetings. They are sent a notice of meeting and business is transacted according to the law. The date and place of the meeting, the agenda and the draft resolutions of the meeting are published in the French official gazette (*Bulletin des annonces légales obligatoires*, BALO) at least 35 days prior to the date of the meeting, with the final notice of meeting being sent no later than 15 days prior to the meeting. The Board of Directors ensures, in the interests of all shareholders, that the period of notice for meetings is much longer than the minimum requirements.

At least 21 days prior to the meeting, all documentation required by current regulations is provided on the Company's website (www.thalesgroup.com). It is available for shareholders at the registered office within the statutory deadline.

The date of the General Meeting is published on the Company's website approximately six months in advance.

Participation in Annual General Meetings, in any form whatsoever, is conditional upon registration of the shares in accordance with the conditions and within the time limits provided for under the current regulations.

At the General Meeting of 15 May 2019 and subsequently, shareholders will be able to vote electronically.

Any shareholder who has already voted by post or by proxy, or requested an admittance card or share ownership certificate, may sell all or some of their shares at any time.

However, in accordance with the regulations in force since 1 January 2015, should the intermediary account holder notify the Company of a disposal occurring before midnight (Paris time) on the second trading day prior to the Annual General Meeting, the Company will invalidate or modify the vote, proxy, admittance card or share ownership certificate, as the case may be.

No sale or other operation carried out after midnight (Paris time) on the second trading day prior to the meeting, irrespective of the means used, is notified by the approved intermediary or taken into consideration by the Company, notwithstanding any agreement to the contrary.

The right to vote, and consequently the right to attend Annual General Meetings, belongs to the beneficial owner at Ordinary General Meetings, and to the bare legal owner at Extraordinary General Meetings. Owners of pledged shares retain their voting rights. Co-owners of shares are represented at Annual General Meetings by one of the co-owners or by a joint proxy who, in the event of disagreement, is appointed by the court at the request of the co-owner who acts first.

Each person present at the Annual General Meeting has one vote for each share owned or represented, without limitation, subject to the following provisions on the right to a double vote, and to the exceptions provided by law.

Shareholders who can prove that their shares have been registered in their name in the Company's share register (kept by Société Générale, duly authorised for this purpose – see section 6.2.1), for at least two years without interruption, are entitled to double voting rights at Annual General Meetings for each share so held. Registered shares that have been granted to a shareholder as free shares in respect of shares they already hold with double voting rights attached are also entitled to double voting rights as soon as the shares have been granted.

Double voting rights automatically end for any share that is converted to bearer form or is transferred (except in the case of inheritance, either intestate or by will, spousal community property, *inter vivos* gifts to a spouse or relative who may inherit, or in the case of a transfer as a result of a merger or demerger of a shareholding company).

Double voting rights may be cancelled by a decision of an Extraordinary General Meeting, following approval by a special Annual General Meeting of Shareholders entitled to double voting rights.

Under the Articles of Association, there is no limit on voting rights.

Key factors likely to have an impact in the event of a takeover bid

The structure of share ownership and the distribution of voting rights mean that Thales is unlikely to be affected by any public offering. Furthermore:

1. the two main shareholders (Dassault Aviation and TSA) have declared that they are acting in concert under a shareholders' agreement, the key terms of which are described in section 6.2.3.3.1, which stipulates in particular that the Chairman and CEO is chosen based on a joint proposal by the parties;
2. in the absence of termination on expiry of the contract on 31 December 2016, the agreement was tacitly renewed for another period of five years, expiring on 31 December 2021. It may be tacitly renewed for five-year periods;
3. any crossing of the threshold of one-tenth or a multiple of one-tenth of the share capital or voting rights of the Company must first be approved by the Minister for the Economy; in addition, under the conditions set by Decree No. 93-1296 of 13 December 1993, the Minister responsible for the Economy may oppose decisions on the sale or the allocation as collateral of assets referred to in the appendix of Decree No. 97-190 of 4 March 1997 (see section 6.2.3.3.5).

General Meeting authorisations valid at 31 December 2018 for increases in capital

Table pursuant to Article L. 225-37-4 paragraph 3 of the French Commercial Code.

Annual General Meeting of 23/05/2018	Used by the Board of Directors	Observations
Issue of securities giving access to equity capital <ul style="list-style-type: none"> • With pre-emptive subscription rights (Resolution 22): 53 million shares, €3 billion in debt securities • Without pre-emptive subscription rights (Resolution 23): 20 million shares and €2 billion in debt securities • Without pre-emptive subscription rights by private placement (Resolution 24): 20 million shares and €2 billion in debt securities • Possibility of over-allotment ("green shoe") (Resolution 25): maximum of 15% of issues carried out attributable to each Resolution/transaction above <p>26 months, i.e. until 22 July 2020</p>	Not used	Overall ceiling of Resolutions 22, 23, 24, 25 and 26: 60 million shares and €3 billion in debt securities (Resolution 27)
Issue of new shares as consideration for contributions of the securities of third-party companies <p>Up to a maximum of 21.2 million shares (Resolution 26) 26 months, i.e. until 22 July 2020</p>	Not used	Overall ceiling for transactions coming under Resolutions 23, 24, 25 and 26: 20 million shares and €2 billion in debt securities (Resolution 27)
Issue of new shares reserved for employees who are members of the Group savings scheme <p>Ceiling: 2 million shares (Resolution 28) Maximum discount: 20% for a five-year employee savings plan and 30% for a ten-year holding period 26 months, i.e. until 22 July 2020</p>	Not used	Note: Employee shareholding operations are now conducted using existing shares, which have previously been bought back by the Company under a share repurchase programme.

Agreements entered into by a manager or major shareholder and a subsidiary

During financial year 2018, no agreement was reached, directly or through an intermediary, between, on the one hand, one of the Company representatives or one of the shareholders holding a fraction of the voting rights greater than 10% of the Company's share capital and, on the other hand, another company of which Thales holds directly or indirectly more than half the share capital, with the exception of current agreements concluded under normal conditions.

4.3 CORPORATE MANAGEMENT AND THE EXECUTIVE COMMITTEE

Executive Committee at 31 December 2018



Marc Darmon
Executive Vice
President, Secure
Communications and
Information Systems



Alex Cresswell
Executive Vice
President,
Land & Air Systems



Philippe Duhamel
Executive Vice
President, Defence
Mission Systems



Gil Michielin
Executive Vice
President, Avionics



Jean-Loïc Galle
Executive Vice
President, Space



Millar Crawford
Executive Vice
President, Ground
Transportation
Systems



Patrice Caine
Chairman and CEO



**Pierre-Éric
Pommellet**
Senior Executive Vice
President, Operations
& Performance



Pascale Sourisse
Senior Executive
Vice President,
International
Development



David Tournadre
Senior Executive
Vice President,
Human Resources



Pascal Bouchiat
Senior Executive
Vice President,
Finance and
Information Systems



Isabelle Simon
Executive Vice
President, Group
Secretary and
General Council



Philippe Keryer
Executive
Vice President,
Strategy, Research
and Technology

4.4 COMPENSATION OF THE CHAIRMAN AND CEO AND OTHER COMPANY REPRESENTATIVES

4.4.1 Compensation of the Chairman and CEO and other Company representatives for financial year 2018

The annual fixed and variable compensation for 2018 for Patrice Caine was established in accordance with the compensation policy for the Chairman and CEO of Thales approved by the General Meeting of 23 May 2018 (Resolution 15). It comprises:

- a fixed compensation of €700,000 (gross amount);
- a target annual variable compensation of €700,000 in the event of achieving objectives and that is capped, in the event of exceeding these objectives, at a maximum of €962,500 (137.5% of the target).

The criteria for determining the variable compensation are set at an overall level of 75% financial and 25% non-financial. In order to reward outperformance of the financial criteria, the amount of the payment relative to these criteria may exceed the target up to 150%. This is not the case for the non-financial portion which is capped at 100%. Consequently, annual variable compensation is capped at 137.5% of the target.

(i) Financial criteria

For the financial part, the criteria were EBIT (35%), order intake (20%), and free operating cash flow (20%). The table below sets out the achievement level against these three financial criteria.

➤ FINANCIAL CRITERIA FOR 2018 ANNUAL VARIABLE COMPENSATION

Criteria	Weighting	Threshold	Payment as % of target
EBIT	35%	If results ≤ 90% of budgeted objective	0%
		If results = 100% of budgeted objective	35.00%
		If results ≥ 110% of budgeted objective	52.50%
Order intake	20%	If results ≤ 90% of budgeted objective	0%
		If results = 100% of budgeted objective	20.00%
		If results ≥ 110% of budgeted objective	30.00%
Free operating cash flow	20%	If results ≤ budgeted objective – 2% of budgeted revenues	0%
		If results = 100% of budgeted objective	20.00%
		If results ≥ budgeted objective + 2% of budgeted revenues	30.00%
TOTAL FINANCIAL CRITERIA	75%		

The definition and calculation of these criteria are set out in section 2.3.2.

Meeting on 25 February 2019, the Board of Directors examined the results obtained for the financial criteria.

Criterion	Weighting	In € millions	Achievement level
EBIT	35%	1,685	110.1%
Order intake	20%	16,034	103.9%
Free operating cash flow	20%	811	72.4%
Financial portion of annual variable compensation (as % of the target)			98.4%

As in 2017, the budgeted target for the Group's EBIT was particularly ambitious in that it corresponded to an additional year of strong growth in this indicator and meant a margin level significantly higher than the target set in 2014 (9.5% to 10% of margin by 2017/2018). The Board noted that, in spite of negative currency and scope effects, the Group's EBIT had reached €1,685 million in 2018, €45 million above the middle of the target range communicated to the market (€1,620 million to €1,660 million). This performance, above the budgeted target, triggered a payment of 110.1% on this criterion.

The Board also noted that the Group had recorded an order intake of €16,034 million, slightly above the budgeted target and the target of €15.5 billion communicated to the market, triggering a payment of 103.9% on this criterion.

After reaching an exceptional level in 2017, the Group's free operating cash flow stood at €811 million in 2018. As this performance was below the budgeted target, it triggered a payment of 72.4% on this criterion.

Overall, taking into account the weighting of the three financial criteria, the Board noted that the financial portion of annual variable compensation was therefore 98.4% of the target, i.e. €516,611.

(ii) Non-financial criteria

In accordance with the aforementioned compensation policy of the Chairman and CEO of Thales, he was assessed in 2018 on the achievement of the following four non-financial criteria:

- **Five-year strategic priorities:** definition of profitable growth objectives for the coming years and organisation of the next Capital Markets Day;

- **Globalisation:** implementation of new initiatives to pursue the Group's global development strategy, focused on selected major countries;
- **Corporate Social Responsibility:** continued deployment of actions relating to diversity and inclusion within Thales. Definition of new three-year environmental objectives. Relaunch of a global training programme for the executives and staff most exposed to the risks of corruption and influence peddling;
- **Digital strategy/Gemalto:** demonstration of the initial impacts of the Digital Factory in "digitalising" Group activities. Execution of the planned takeover of Gemalto.

Each of these objectives represented one-fourth of the 25% of the weighting attributed to non-financial criteria.

At its meeting of 25 February 2019, the Board of Directors first of all reviewed the above criteria, on the recommendation of the Governance and Remuneration Committee, and then discussed, among other things, the achievements of each of the objectives.

With regard to the five-year strategic priorities, the Board underscored the very positive reception by investors and analysts at the June 2018 Capital Markets Day, during which the Group's five-year growth targets were revealed to the market.

The Board noted the progress made on the "globalisation" project, particularly in India and Singapore, with the opening of a Digital Factory.

Regarding corporate social responsibility targets, the Board noted the Chairman's deep involvement in issues of diversity and inclusion with several presentations at conferences and to professional networks. The Group's three-year environmental targets were set. More details on the corresponding initiatives can be found in section 5, "Corporate responsibility and non-financial performance", on page 100. The relaunch of the global anti-corruption compliance programme resulted in the implementation of new mandatory training courses, online and in person.

Lastly, with regard to digital strategy and the execution of the planned takeover of Gemalto, the Board noted the progress made with the Group's digital transformation projects which focused on developing digital solutions and technology as well as digital internal processes and culture. The Board noted the progress made in obtaining the approvals required to complete the takeover of Gemalto, 11 of the 14 approvals having been obtained at the end of December 2018, and the detailed planning of its integration, which had been structured by a project management office.

At its meeting of 25 February 2019, the Board of Directors decided, on the recommendation of its Governance and Remuneration Committee, to set the overall achievement level of these criteria at 100%, i.e. €175,000, to underscore the corresponding outperformance. Apart from the many initiatives undertaken for each of the four criteria and the progress made by the Group in these areas, Patrice Caine had prepared the Group for its new challenges through his leadership and actions, particularly with regard to the acquisition of Gemalto.

Following this review and the recommendation by the Governance and Remuneration Committee, the Board of Directors decided that the variable compensation to be paid in 2019 to Patrice Caine for financial year 2018 should be €691,611, representing 98.8% of the target annual variable compensation. It should be noted that the payment of this variable compensation is subject to the approval of the General Meeting of 15 May 2019 (Resolution 5), in application of Article L. 225-100-2 of the French Commercial Code.

In 2018, the Board of Directors also granted Patrice Caine long-term compensation in the form of a maximum of 5,000 performance units indexed to the Thales share price, which was approved by the General Meeting of 23 May 2018 (Resolution 15). Acquisition of this compensation depends in particular on performance conditions calculated over three years and on an attendance condition over four years. This long-term compensation is detailed in Table 6 below.

In application of Article L. 225-100-2 of the French Commercial Code, the components of the compensation of the Chairman and CEO subject to the vote of the General Meeting of 15 May 2019 (Resolution 5) are detailed in the table below.

➤ **SUMMARY TABLE OF THE COMPENSATION COMPONENTS OF PATRICE CAINE, CHAIRMAN AND CEO, FOR 2018**

Compensation component	Policy approved by the General Meeting of 23 May 2018	Paid for financial year 2018	Allocated for financial year 2018 (as amount or accounting valuation)
Annual fixed compensation	The policy provides for fixed annual compensation of €700,000.	€700,000	
Annual variable compensation	<p>The policy provides for a target annual variable compensation of €700,000.</p> <p>The criteria set are as follows:</p> <ul style="list-style-type: none"> financial criteria account for 75% (see description above). The targets are set by the Board of Directors during the budgetary process but are not made public for reasons of confidentiality; non-financial criteria make up the remaining 25% of variable compensation (see description above). <p>In the event of outperformance of the financial targets, the variable compensation may reach a maximum of €962,000, i.e. 137.5% of fixed annual compensation.</p>		€691,611 ^(a)
Total annual compensation			€1,391,611
Multi-year variable compensation	None	—	—
Long-term compensation	<p>The number of units ultimately vested will depend on the level of achievement, calculated over three years, of the following performance conditions:</p> <ul style="list-style-type: none"> 40% based on a growth objective measured in terms of average order intake over the 2018-2020 period; 40% based on a competitiveness objective measured in terms of cumulative free operating cash flow over the 2018-2020 period; and 20% based on Thales's stock market performance and measured by Total Shareholder Return (which includes reinvested dividends). <p>Acquisition is also subject to an attendance condition over four years (i.e. until 5 March 2022), except in the event of death or disability. Half of the payment is made in kind with Thales shares and half is made in cash. The detailed conditions of this long-term compensation appear on pages 166 and 167 of the 2017 Registration Document.</p>	—	€510,000 ^(b)
Exceptional compensation	None	—	—
Non-compete clause	None	—	—
Compensation linked to taking up appointment	None	—	—

(a) The payment to Patrice Caine of annual variable compensation for 2018 is conditional upon the approval of the Annual General Meeting of 15 May 2019 (Resolution 5).

(b) Total determined by multiplying the maximum number of units granted (5,000) by the Thales share price at 31 December 2018.

Compensation component	Policy approved by the General Meeting of 23 May 2018	Paid for financial year 2018	Allocated for financial year 2018 (as amount or accounting valuation)
Deferred incremental and conditional compensation ^(a)	<p>The Thales Company representative is entitled to deferred incremental and conditional compensation, the amount of which is determined on the basis of an identical allocation method to the Group supplementary pension scheme in operation within Thales at the date of the Board meeting for Group executives whose compensation exceeds the contributions ceiling set by Agirc, the French executive pension fund.</p> <p>Their entitlement is subject to performance conditions over the last three years.</p> <p>It is increased (doubling the annuity) if the Company representative accumulates a minimum of 10 years' service on the Executive Committee of Thales.</p> <p>This related-party commitment was approved by the General Meeting of 23 May 2018 (Resolution 17). For more details, see page 93.</p>		€14,269 in potential annual deferred compensation paid in respect of 2018, i.e. 2.04% of the fixed salary
Severance pay ^(a)	<p>Subject to fulfilment of the same performance conditions as for deferred incremental and conditional compensation, compensation could be paid to Patrice Caine if his term of office as Company representative were terminated, except in the case of resignation, serious misconduct or gross negligence.</p> <p>The amount of compensation is fixed at 12 months of his reference salary (fixed and variable compensation paid over the last 12 months of activity, excluding long-term compensation).</p> <p>This related-party commitment was approved by the General Meeting of 23 May 2018 (resolution 16). For more details, see page 94.</p>	—	—
Private unemployment insurance ^(a)	<p>Patrice Caine is entitled to private unemployment insurance subject to fulfilment of the same performance conditions as those envisaged for severance pay. This related-party commitment was approved by the General Meeting of 23 May 2018 (resolution 18). For more details, see page 94.</p>	—	2018 employer's contribution: €12,516
Attendance fees	<p>By decision of the Board of Directors on 5 March 2018, Patrice Caine does not receive attendance fees, which are retained by the Company.</p>	—	—
Benefits of any kind	<p>Patrice Caine is entitled to:</p> <ul style="list-style-type: none"> the services of a chauffeur-driven car for his business travel; external legal and tax assistance. <p>In addition, he is entitled to the private healthcare scheme for French employees, an annual check-up like other Thales senior executives and directors' liability insurance, including criminal liability.^(b)</p>	€3,987 €20,160	

(a) Related-party commitment (Articles L. 225-42-1 and R. 225-34-1 of the French Commercial Code).

(b) The cost of healthcare and annual check-up benefits to the Company for financial year 2018 amounted to €2,843. Liability insurance is a collective insurance, the cost of which cannot be individualised.

Components of 2018 compensation for other Company representatives

Attendance fees

The total amount of attendance fees to be divided among directors and non-voting members for services to the Board, including compensation payable to directors who are Committee members in respect of their participation in these Committees, is set at €600,000 per year, an amount that has remained unchanged since 2008. The Board decided that directors would receive:

- for services to the Board, fixed compensation of €14,000 per year (prorated in the event of appointment or resignation during the year), adjusted down if necessary to respect the total envelope (see below), and variable compensation based on attendance at meetings amounting to €2,500 per meeting;
- for services to the Committees, compensation (entirely variable), based on attendance of €1,250 per meeting, with the Chairman of each Committee receiving an additional €2,000 per year (prorated based on the number of meetings chaired, if applicable).

If, on account of the high number of meetings (variable compensation being paid first), the total amount of €600,000 per financial year

(gross amount before any deductions) is likely to be exceeded, the fixed component of directors' compensation is reduced in order to remain within the annual budget approved by shareholders. For 2018, the fixed component was thus reduced from €14,000 to €10,700 for the full year.

For 2018, attendance fees totalled €599,591 (gross amount before any deduction at source and levy), versus €599,885 for 2017. This amount includes attendance fees not received by the Chairman and CEO and retained by the Company. The payment of attendance fees was made in full in February 2019. Most of the total of €558,141 actually paid comprised the variable component, as recommended by the French Afep-Medef code, amounting to €401,500 (approximately 72% of the total received).

For information purposes, the gross amount (before any deduction at source or levy) paid during financial year 2018 (after any retention by the Company) and representing the attendance fees due for financial year 2017, amounted to €558,145.

The tables from the appendices of the Afep-Medef code relating to executive compensation give details on the beneficiaries (see Table 2 – Company representative and Table 3 – Directors below).

➤ COMPLIANCE WITH THE RECOMMENDATIONS OF THE AFEP-MEDEF CODE

Recommendations of the Afep-Medef code	Thales provisions for Patrice Caine, Company representative
Severance pay	
Only in the event of forced departure	Yes
Performance conditions over two years	Performance conditions over the last three financial years
Maximum amount: two years' compensation (fixed and variable)	12 months of his reference salary (fixed and variable compensation paid over the last 12 months of activity, excluding long-term compensation)
Supplementary pension	Not applicable ^(a)

(a) The deferred incremental and conditional compensation of Thales's Company representative is an arrangement that is modelled on pension schemes, but which is not governed by Article L. 137.11 of the French Social Security Code or Article 24.2.6 of the Afep-Medef code. This benefit is not subject to the condition of the recipient serving out the rest of his/her career with the Company. Under this arrangement Thales awards, under conditions relating to seniority in office and performance, deferred compensation paid as an annuity when the beneficiary claims his/her mandatory pension. The calculation procedures for this deferred compensation, and the corresponding amounts, comply with the principles relating to the compensation of directors as defined by Article 24-1 of the Afep-Medef code.

➤ TABLE 1: COMPENSATION, OPTIONS AND SHARES GRANTED TO THE COMPANY REPRESENTATIVE

(in € thousands)	2018	2017
Patrice Caine, Chairman & Chief Executive Officer		
Compensation due for the year (detailed in Table 2)	1,391.6	1,505.5
Value of stock options granted during the financial year	–	–
Value of performance shares granted during the financial year	–	–
Value of performance units granted during the financial year	510.0	449.0
TOTAL	1,901.6	1,954.5

➤ **TABLE 2: COMPENSATION OF THE COMPANY REPRESENTATIVE**

(in € thousands)	2018		2017	
	Due for the financial year	Paid during the financial year	Due for the financial year	Paid during the financial year
Patrice Caine, Chairman & Chief Executive Officer				
Fixed compensation	700.0	700.0	700.0	700.0
Variable compensation ^(a)	691.6	805.5	805.5	599.9
Exceptional compensation			—	—
Attendance fees ^(b)	—	—	—	—
Benefits in kind ^(c)	24.1	24.1	38.5	38.5
Total Patrice Caine	1,415.7	1,529.6	1,543.5	1,338.4

(a) See pages 86 and 87 above on the review of variable compensation for 2018.

(b) Does not receive any fees that would be granted due to his attendance at meetings of the Board of Directors and the Strategic & CSR Committee. These are retained by the Company (decision of the Board of Directors on 5 March 2018). The amount of fees calculated and not paid to Patrice Caine in 2018 following this decision is €41,450.

(c) The Company representative is entitled to the services of a chauffeur-driven car and external tax and legal advice.

➤ **TABLE 3: ATTENDANCE FEES AND OTHER COMPENSATION RECEIVED BY NON-EXECUTIVE DIRECTORS (GROSS AMOUNTS BEFORE ANY DEDUCTION AT SOURCE OR OTHER LEVY)**

Beneficiary (gross amount in euros)	Paid in 2018 ^(a)	Paid in 2017 ^(a)	Notes
Th. Aulagnon (up to 23/08/2016 incl.)	—	10,101	(c)
L. Broseta	28,226	17,350	
Y. d'Escatha	45,490	25,600	
G. Dyèvre (up to 27/06/2017 incl.)	14,079	17,350	(c)
Ch. Edelstenne	39,740	22,350	
D. Gény-Stephann (from 29/11/2016 incl. to 23/11/2017 incl.)	32,032	888	(c)
Ph. Lépinay	39,740	22,350	(b)
A. de Madre (from 28/06/2017 incl.)	16,911	—	(c)
L. Segalen	40,990	22,350	
A.-C. Taittinger	45,490	24,350	
A. Taylor	30,990	19,850	
É. Trappier	40,990	23,600	
M.-F. Walbaum	35,990	17,350	
Inter CFDT (D. Floch up to 8/12/2017 incl. + M. Saunier up to 13/10/2017 incl.)	—	39,455	(c)
Inter CFE-CGC (A.-M. Hunot-Schmit from 9/12/2017 incl.)	37,240	619	(c)
FGMM-CFDT (F. Saint from 9/12/2017 incl.)	50,990	619	(c)
Treasury Accountant – Art. 139 NRE and/or Order No. 2014-948 (L. Collet-Billon + M. Vial + O. Renaud-Basso + D. Gény-Stephann + L. Broseta)	59,247	40,950	
TOTAL GROSS AMOUNT OF ATTENDANCE FEES PAID	558,145	305,132	(d)

(a) By decision of the Board of Directors on 27 February 2017, attendance fees are paid annually. The payments made in 2017 correspond to the sum of the fixed portion of attendance fees due for financial year 2016 and the variable portion of attendance fees due for the second half of 2016 only. Payments made in 2018 correspond to the sum of the fixed and variable portions of attendance fees for financial year 2017.

(b) Philippe Lépinay informed the Company that in 2018 he donated the sum of €3,400 to the Thales employee shareholder association (APAT).

(c) Amounts determined on a pro rata basis.

(d) Gross amounts paid in 2018 and 2017. The gross amount of attendance fees due for those two years (including attendance fees not received by the Company representative and retained by the Company) are €599,591 and €599,885 respectively, less than the annual budget of €600,000 authorised by the General Meeting.

➤ **TABLE 4: SUBSCRIPTION OR PURCHASE OPTIONS AWARDED DURING THE FINANCIAL YEAR TO THE COMPANY REPRESENTATIVE BY THE ISSUER OR BY ANY OTHER GROUP COMPANY**

None. The Company has not awarded subscription or purchase options since 2012.

➤ **TABLE 5: SUBSCRIPTION OR PURCHASE OPTIONS EXERCISED DURING THE FINANCIAL YEAR BY THE COMPANY REPRESENTATIVE**

None.

➤ **TABLE 6: PERFORMANCE SHARES AWARDED DURING THE FINANCIAL YEAR TO THE COMPANY REPRESENTATIVE BY THE ISSUER OR BY ANY OTHER GROUP COMPANY**

During financial year 2018, no performance shares were awarded to Patrice Caine.

In the context of the 2018 compensation policy approved by the General Meeting of 23 May 2018 in its nineteenth resolution, he was awarded a long-term incentive plan in the form of performance units, the main conditions of which are shown below.

Director's name	Date of plan	Maximum number of performance units	Vesting conditions
Patrice Caine	05/03/2018	5,000	Units vesting after a four-year vesting period from 05/03/2018 and subject to performance conditions

➤ **LONG-TERM INCENTIVE PLAN CRITERIA AND WEIGHTINGS (2018 LTIP)**

2018 LTIP criteria	Weighting	Objectives	Threshold	Payment as % of target
Cumulative free operating cash flow 2018-2020	40% (2,000 units)	Floor: €2.6 billion	If results < floor	0%
			If results = floor (= 33% of maximum)	13.20%
		Ceiling: €3.6 billion	If results ≥ ceiling for the period	40.00%
			Variations between floor and ceiling calculated on a straight-line basis	
Average order intake for 2018-2020	40% (2,000 units)	Floor: €15.5 billion	If results < floor	0%
			If results = floor (= 50% of maximum)	20.00%
		Ceiling: €17.5 billion	If results ≥ ceiling for the period	40.00%
			Variations between floor and ceiling calculated on a straight-line basis	
Total Shareholder Return compared to a panel of European companies ^(a) Measure based on performance at 31/12/2020 compared to 31/12/2017	10% (500 units)	Floor: median of the panel	If TSR < median of the panel	0%
			If TSR = median of the panel (= 50% of maximum)	5.00%
		Ceiling: highest quintile of the panel	If TSR is in the highest quintile of the panel	10.00%
			Variations between median and entry point of highest quintile calculated on a straight-line basis	
Total Shareholder Return compared to the Euro Stoxx index. Measure based on performance at 31/12/2020 compared to 31/12/2017	10% (500 units)	Floor: median of the Euro Stoxx index	If TSR < median of the index	0%
			If TSR = median of the index (= 50% of maximum)	5.00%
		Ceiling: highest quintile of the index	If TSR is in the highest quintile of the index	10.00%
			Variations between median and entry point of highest quintile calculated on a straight-line basis	

(a) The panel includes: Airbus, Atos, BAE Systems, Capgemini, Dassault Aviation, Leonardo, Rolls-Royce and Safran.

➤ **TABLE 7: PERFORMANCE SHARES OR UNITS THAT HAVE BECOME AVAILABLE DURING THE FINANCIAL YEAR FOR THE COMPANY REPRESENTATIVE**

As indicated in Tables 1 and 6, Patrice Caine's compensation as Company representative does not include performance shares. All performance shares or units that have become available during the financial year were awarded to him under his previous salaried positions and prior to his appointment as Company representative.

Director's name	Date of plan	Number of units that have become available during the year	Vesting conditions
Patrice Caine	16/09/2014	6,500	Units vested after a four-year vesting period and subject to performance conditions

➤ **TABLE 8: PAST AWARDS OF SUBSCRIPTION AND/OR PURCHASE OPTIONS TO THE COMPANY REPRESENTATIVE**

None. Patrice Caine has not received any subscription or purchase options during his term in office. He has retained those that had been awarded to him with respect to his previous salaried positions.

➤ **TABLE 9: PAST AWARDS OF PERFORMANCE UNITS TO THE COMPANY REPRESENTATIVE**

Director's name	Award date	Number of units awarded	Vesting conditions
Patrice Caine	2017	5,000 (maximum)	Units vested after a four-year vesting period and subject to performance conditions over 2017-2019. Details of other conditions can be found on pages 153 and 154 of the 2016 Registration Document.
Patrice Caine	2018	5,000 (maximum)	Units vested after a four-year vesting period and subject to a performance conditions over 2018-2020. Details of other conditions can be found on pages 166 and 167 of the 2017 Registration Document.

➤ **TABLE 10: MULTI-YEAR VARIABLE COMPENSATION PAID TO THE COMPANY REPRESENTATIVE**

None.

➤ **TABLE 11**

Company representative	Patrice Caine
Term of office start date ^(a)	23 May 2018
Term of office end date	AGM 2022
Employment contract	no
Supplementary pension scheme	no ^{(b)(c)}
Compensation or benefits due or likely to become due as a result of termination or change of position	yes ^(c)
Compensation for restrictive covenant	no

(a) Patrice Caine was first appointed Chairman and CEO on 23 December 2014.

(b) See Note (a) to the table "Compliance with the recommendations of the Afeep-Medef code", page 90 and below.

(c) Decision made in 2015 and renewed in 2018.

Detailed description of the three related-party commitments authorised by the Board of Directors and approved by the General Meeting of 23 May 2018

Deferred incremental and conditional compensation of Patrice Caine, Company representative

The Thales Company representative is entitled to deferred incremental compensation, the amount of which is determined using the same points method as for the Group supplementary pension scheme in operation at the date of the Board meeting for Group executives whose compensation exceeds the contributions ceiling set by Agirc, the French executive pension fund.

This arrangement is based on defined benefit plans but is not governed by Article L. 137.11 of the French Social Security Code as its benefit is not subject to the recipient serving out the rest of their career with the Company:

- the acquisition of rights is progressive and is based on capped compensation received during each year. The system draws upon the Agirc retirement plan and its points calculation. Acquisition relates to the tranche of salary not affected by compulsory schemes, namely salaries higher than eight annual Social Security caps (*Plafonds Annuels de Sécurité Sociale* – PASS) (> €324,192 in 2019);
- the calculation is made each year on the compensation declared to URSSAF, the French Social Security collection office, using the annual values of Social Security caps and the official Agirc reference salary. The acquisition base is equal to 20% of the portion of salary paid between eight PASS and 32 PASS caps maximum (i.e. between €324,192 and €1,296,768 in 2019), which has the effect of limiting annual acquisition to a maximum of approximately €14,500;

- this base is then divided by the Agirc reference salary for the year (acquisition price of one point) to obtain a number of notional points acquired for the year. The potential compensation to be paid is equal to the total number of points acquired multiplied by the value of the Agirc point on the date of setting up the annuity.

Entitlement to the rights acquired by the Company representative is not subject to the employment condition in the Company at the time of payment of the retirement benefits. On the other hand, this deferred compensation is only deemed to have been acquired on condition that the Company representative has carried out a full term in office and has drawn their retirement benefits. Their entitlement is also subject to achieving a performance criterion over the last three full financial years: the average rate of achievement of annual EBIT objectives set by the Board for the Company representative must be higher than or equal to 80%.

This mechanism (annuities and social costs for the employer) is provisioned and financed by the Company.

This deferred compensation is increased (doubling the annuity) if the Company representative accumulates a minimum of 10 years' service on the Executive Committee of Thales.

In 2018, Patrice Caine potentially acquired annual deferred compensation of €14,269.

At 31 December 2018, the theoretical annual annuity, accumulated since the beginning of the term of office, stood at €44,509 (i.e. 6.35% of the annual fixed salary).

Benefits and rights upon the termination of office of Patrice Caine, Company representative

Severance pay

In accordance with the conditions laid down by the Afep-Medef code, with which the Company has declared that it complies, compensation may be paid to Patrice Caine if his term of office as Company representative should be terminated, except in the case of resignation, serious misconduct or gross negligence.

The amount of this severance pay is fixed at 12 months of his reference salary (fixed and variable compensation paid over the last 12 months of activity, excluding the long-term incentive plan). The Chairman and CEO resigned when he took up office and no longer has an employment contract with the Company.

The payment of this compensation is subject to achieving a performance criterion over the last three full financial years: the average rate of achievement of annual EBIT objectives set by the Board for the Company representative must be higher than or equal to 80%.

Private unemployment insurance

A decision was also made to take out private unemployment insurance based on the same performance criteria as for severance pay. This provides for one year's compensation for an amount limited to the sum of the amounts corresponding to 70% of the A and B (Social Security) tranches of net taxable income and 50% of the C tranche of this same income. At 31 December 2018, this private unemployment insurance would have represented private annual compensation equal to approximately €195,000, i.e. 27.8% of the Chairman and CEO's fixed compensation.

4.4.2 Compensation of the Chairman and CEO for financial year 2019

As mentioned in the 2017 Registration Document (page 164), the Board of Directors reviewed the opportunity to update the compensation policy, starting in 2019, for the Chairman and CEO, who is the sole Company representative, to take into account the change in the Group's size following the successful acquisition of Gemalto. The Governance and Remuneration Committee met several times in early 2019 to discuss this issue and formulated a recommendation for the Board.

The proposal approved by the Board after its meetings held on 25 February and 3 April 2019 is described in section B below. It results in a slight change to the general framework of the compensation policy for the Chairman and CEO described in section A.

A. Compensation policy for the Chairman and CEO: general framework

The Annual General Meeting of 23 May 2018 approved a compensation structure for the Chairman and CEO with the following components:

- annual fixed compensation;
- annual variable compensation whose target level is equal to the fixed compensation, based on a combination of financial and non-financial criteria, with financial criteria being of overriding importance;
- long-term incentives (Long-Term Incentive Plan – LTIP) linked to the value of the Thales share, in the form of performance shares or units;
- severance pay⁽¹⁾;
- private unemployment insurance⁽¹⁾;
- deferred incremental and conditional compensation⁽¹⁾;
- legal and tax advice;
- private healthcare benefits identical to those offered to senior executives;
- directors and officers liability insurance;
- reimbursement of business expenses in accordance with Thales's rules and guidelines;
- an annual medical check-up like other senior executives;
- the services of a chauffeur-driven car.

The Company complies with the Afep-Medef code (section 24.1), whereby:

- the Company representative's compensation should be competitive, tailored to the corporate strategy and environment and must be intended to boost the Company's medium to long-term performance and competitiveness. It must be designed to retain and motivate an effective Company representative;

- when determining the compensation, the following principles must be considered: comprehensiveness, balance between different components of compensation, consistency with the compensation of other company executives and employees, understandability of the rules (simple, stable and transparent) and balance in terms of the corporate interest, market practices, the performance of the Company representative and the views of other stakeholders.

The compensation of Executive Committee members and most of the Group's senior executives is made up of a fixed component, an annual variable component and a long-term incentive plan (LTIP). The respective proportion of each component is determined based on the level of responsibility of each position and on benchmark compensation studies conducted in the various national markets where Thales has employees.

For the Chairman and CEO, these components are weighed up and determined in the following manner:

- the fixed component is determined based on the level of responsibility and on benchmark compensation studies of comparable profiles;
- the annual target variable compensation is equal to 100% of fixed compensation; subject to approval by the Annual General Meeting of 15 May 2019, the cap on this annual variable compensation would be increased from 137.5% to 150% of fixed compensation (see section B below). This is the only planned change to the general framework presented to the Annual General Meeting of 23 May 2018;
- the value of the target long-term incentive plan at the grant date may not exceed 100% of the fixed compensation.

Long-term incentive is based on the achievement of demanding performance criteria measured at the end of a three-year period. It vests in a single instalment at the end of a four-year period. Most of the long-term incentive is subject to internal performance criteria linked to strategic objectives laid down by the Board that take into account the objectives communicated to financial markets (if these exist).

The Chairman and CEO must hold the Thales shares delivered to him at each LTIP maturity date, at 50% of the net after-tax gain from these LTIPs, until he has accumulated the equivalent of one year's fixed compensation in shares. He must keep these shares for his entire term of office as Chairman and CEO.

The Chairman and CEO is also entitled to a deferred incremental and conditional compensation mechanism detailed on page 93.

Lastly, the severance payment shall only be paid to the Chairman and CEO in the event of forced departure, contingent upon the achievement of performance targets over three financial years. It is capped at 12 months of reference salary (fixed and variable compensation paid

(1) Related-party commitments subject to performance conditions.

over the last 12 months of activity, excluding LTIP), which is less than the amount recommended under the Afep-Medef code.

Pursuant to the Afep-Medef code (section 24.1.2), the rules for determining the Chairman and CEO's compensation should be stable and the performance criteria used should be, to the greatest extent possible, long lasting. In principle, fixed compensation should only be reviewed at relatively long intervals (section 24.3.1 of the Afep-Medef code).

B. Implementation of compensation policy for the Chairman and CEO in 2019

In accordance with the provisions of Article L. 225-37-2 of the French Commercial Code, the Board of Directors must submit the principles and criteria for determining, breaking down and allocating the fixed, variable and exceptional items that make up the total compensation and benefits in kind granted to the Chairman, the Chief Executive Officers and Deputy Chief Executive officers, for the approval of the Annual General Meeting at least once a year.

This section equates to the draft resolution for 2019 (No 6) concerning the compensation payable to the Chairman and CEO, the Company's only Company representative.

If this resolution is adopted by the Annual General Meeting of 15 May 2019:

- the principles and criteria set out in this section will be applicable beginning in 2019, subject to any possible amendment at a subsequent Annual General Meeting deliberating on the same subject, in accordance with the aforementioned provisions of Article L. 225-37-2;
- the components of total compensation and benefits in kind paid or granted to the Chairman and CEO for 2019 in accordance with these principles and criteria will be put to the vote of the shareholders at the Annual General Meeting called to approve the financial statements for 2019, in accordance with Articles L. 225-37-2 and L. 225-100-II of the French Commercial Code which moreover stipulate that payment of variable and exceptional items are subject to the approval of the Annual General Meeting.

a) 2019 change in overall compensation structure

At its meetings of 25 February and 3 April 2019, the Board of Directors decided to change the compensation policy as from 2019 for its Chairman and CEO, based on the recommendations of the Governance and Remuneration Committee, in order to:

- take into account the Group's change in size and expansion of its activities in the digital sector following the acquisition of Gemalto (18% increase in Group revenue and 22% increase in headcount);
- in line with the expectations of many shareholders, increase the weight of long-term compensation, capped in 2018 at 65% of fixed compensation;
- increase the incentive effect of the financial criteria for annual variable compensation, in particular in the event of outperformance against the budget;

- take into consideration the staggered positioning of both the fixed and total compensation of the Chairman and CEO compared to that of executive corporate officers of major companies with a comparable profile. To that end, the Board reviewed the results of a survey carried out by consulting firm Mercer on a broad panel of 19 major French industrial companies⁽¹⁾. Out of that panel, 75% of executive directors had a fixed compensation above €875,000 and 50% had one above €1,100,000. The 2018 compensation of the Chairman and CEO, both fixed and total, was therefore still in the first quartile of that panel;
- ensure that the compensation of the Chairman and CEO is consistent in terms of structure and amount with that of the members of the Executive Committee. (In particular, the Board took into account the higher positioning in the panel of the compensation of the CEO of Gemalto, who has now joined the Executive Committee. That higher positioning is reflective of practices in the digital sector).

In accordance with the general framework described in section A above, this change results in:

- an increase from €700,000 to €800,000 in annual fixed compensation and, as a consequence, in annual target variable compensation;
- an increase in the incentive effect of annual fixed compensation in the event of outperformance against budgetary targets: the maximum component attached to the financial criteria will increase from 112.5% to 125% of annual fixed compensation and the component attached to the non-financial criteria will remain at 25% so that the maximum amount of annual variable compensation will be 150% of annual fixed compensation, i.e. €1,200,000;
- an increase in the weight of long-term compensation: the maximum grant under the 2019 LTIP will rise to 8,000 performance units which, based on the value of the Thales share at the end of 2018, corresponds to approximately €816,000 or 102% of the 2019 fixed compensation (versus 5,000 units previously, corresponding to 65% of the 2018 fixed compensation); the general framework described in section A provides for this possibility of increasing the variable long-term compensation of the Chairman and CEO;

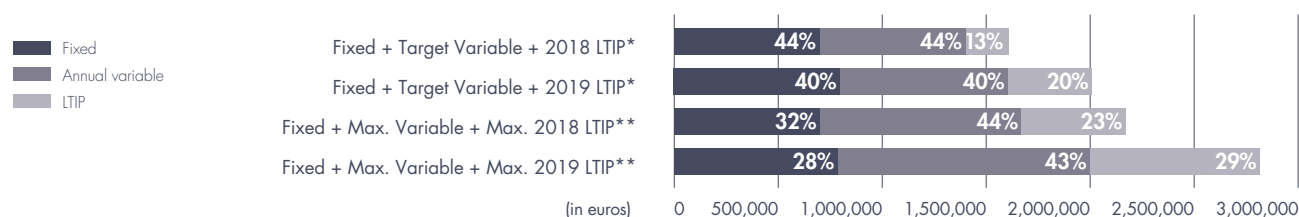
each performance unit will be valued at the closing Thales share price on 24 February 2023 and the exact amount of this compensation will depend on the fulfilment of performance and employment conditions, as well as on the value of the Thales share on the vesting date of the performance units.

The Board of Directors wished to keep all other components of his 2019 compensation unchanged, in particular the nature and weighting of the financial criteria attached to the annual and long-term variable compensation.

Lastly, the Board decided to commit to keeping the fixed compensation of the Chairman and CEO unchanged for the duration of Mr. Caine's current term of office, which ends in May 2022, barring any further exceptional event.

(1) Airbus Group, Alstom, Atos, Cap Gemini, Compagnie de Saint-Gobain, Dassault Aviation, Dassault Systèmes, Essilor International, Faurecia, Gemalto, L'Air Liquide, Michelin, Peugeot, Renault, Safran, Schneider Electric, Solvay, Valeo and Veolia Environnement. Figures published for fiscal year 2017.

Overall, these changes increase the annual and long-term variable components of compensation and the reward for outperformance, and result in a maximum increase in total compensation of 30% in the event of exceeding all objectives, as shown below.



* In the absence of a history of performance units vested by the Chairman and CEO under his LTIPs, these histograms illustrate the theoretical assumption that 50% of the maximum number of units concerned will ultimately vest.

* and ** Value projections for the LTIP are calculated based on the share price on the last trading day of 2018.

The Board noted that these changes would keep the level of both the fixed and total compensation of the Chairman and CEO in the lower quartile of the above-mentioned panel.

In accordance with Articles L. 225-37-2 and R. 225-29-1 of the French Commercial Code, the Chairman and CEO's annual variable compensation in respect of 2019 will only be paid further to approval by the Annual General Meeting to be held in 2020.

b) Criteria for setting variable compensation for 2019

As in previous years, 75% of the annual variable compensation is set on financial criteria and 25% is set on non-financial criteria. In order to reward outperformance on the financial criteria, payment relative to these criteria may exceed the target and amount to a maximum of 125% of annual fixed compensation. This is not the case for the non-financial portion which remains capped at 25%. Consequently, annual variable compensation is capped at 150% of the target.

(i) Financial criteria for 2019

The Board of Directors has decided to keep financial criteria and weightings identical to those prevailing in the calculation of the 2018 variable compensation, namely:

- 35% based on EBIT;
- 20% based on order intake;
- 20% based on free operating cash flow.

For each criterion, annual variable compensation will only be paid if a demanding threshold is reached. For the first two criteria (EBIT and order intake), no amount is due when the actual figure reported is less than or equal to 90% of the target. For free operating cash flow, no amount is due when the actual figure reported is below the budgeted objective by more than 2% of targeted budgeted revenue.

Triggering ranges for each of the financial criteria, also unchanged from 2018, are detailed below:

Financial criteria for annual variable compensation	Weighting	Threshold	Payment as % of target
EBIT	35%	If results ≤ 90% of budgeted objective	0%
		If results = 100% of budgeted objective	35.00%
		If results ≥ 110% of budgeted objective	58.33%
Order intake	20%	If results ≤ 90% of budgeted objective	0%
		If results = 100% of budgeted objective	20.00%
		If results ≥ 110% of budgeted objective	33.33%
Free operating cash flow	20%	If results ≤ budgeted objective – 2% of budgeted revenues	0%
		If results = 100% of budgeted objective	20.00%
		If results ≥ budgeted objective + 2% of budgeted revenues	33.33%
TOTAL FINANCIAL CRITERIA	75%		

The definition and calculation of these criteria are set out in section 2.3.2 page 27.

As in previous years, the objectives for each financial criterion correspond to those in the Group's budget as approved by the Board of Directors. As the acquisition of Gemalto did not close until March 2019, the final objectives for 2019 will be set by the Board of Directors for the combined Thales + Gemalto scope in the coming months.

For reasons of confidentiality, the exact objectives underlying these financial criteria cannot be disclosed.

The level of achievement for each financial criterion will be detailed a posteriori in the 2019 Registration Document.

(ii) Non-financial criteria for 2019

The Board selected five non-financial criteria for 2019, each contributing to 5% of the target annual variable compensation :

- the definition of strategic priorities and the updating of the five-year growth and profitability objectives for the new Group scope that now includes Gemalto;

- the closing of the Gemalto acquisition; action related to Gemalto's integration as soon as the acquisition closes; implementation of the new organisation; securing of cost synergies; and qualification and quantification of revenue synergies;
- the continued implementation of the digital strategy, including the ramp-up of expertise in the four key digital technologies (Connectivity/Internet of Things (IoT), Big Data, Artificial Intelligence and Cybersecurity), and the development of digital solutions based on these four technologies;
- adapting the Group's globalisation strategy to changes in context;
- several corporate social responsibility objectives: further deployment of measures relating to diversity and inclusion across the Group; adoption in 2019 of a new carbon policy in line with the Paris agreements, including a reduction in the Group's energy intensity; promotion of a personal safety culture; completion of an external review of the Group's anti-corruption policy. More details on the

Group's goals in these areas, including quantitative objectives, are provided in section 5, "Corporate Responsibility and Extra-Financial Performance".

c) 2019 Long-Term Incentive Plan (LTIP)

The LTIP is designed to reward the Chairman and CEO for the Group's long-term performance. In accordance with the Afep-Medef code (section 24.1.2), the performance and employment conditions applicable to this plan are based on those that apply to the LTIPs of members of the Executive Committee and other senior executives who are LTIP beneficiaries (see Sections 4.5 and 6.2.3.5.2), without said conditions being identical. As such, only the LTIP of the Chairman and CEO contains an external financial criterion linked to Thales's stock market performance, which is justified by his corporate office.

For 2019, the structure and achievement criteria of the Chairman and CEO's LTIP remain unchanged compared to the 2018 compensation policy. As described above, only the number of performance units has been revised for 2019 in order to increase the long-term orientation of the compensation policy.

The LTIP consists of performance units tied to the value of the Thales share. The units will be paid 50% in Thales shares and 50% in cash. The grant approved by the Board consists of 8,000 performance units, comprising the maximum number of units that may ultimately vest in the event that related maximum objectives are reached *vis-à-vis* the criteria listed below.

These units are subject to a vesting period of four years from 25 February 2019. The performance units that actually vest in 2023 will depend on the achievement of performance conditions measured over a three-year period (2019-2021).

Pursuant to Articles L. 225-37-2 and R. 225-29-1 of the French Commercial Code, the payments related to the performance units will be submitted to the vote of the Annual General Meeting in accordance with legal conditions.

(i) 2019 LTIP performance criteria

The Board of Directors decided to keep the same demanding performance criteria tied to the Group's key levers of long-term value creation and their implementation as part of the "Ambition 10" strategic plan focused on growth and competitiveness. Therefore, performance is measured as follows over this three-year period:

- 40% based on a growth objective measured in terms of average order intake over the 2019-2021 period;
- 40% based on a competitiveness objective measured in terms of cumulative free operating cash flow over the 2019-2021 period; and
- 20% based on Thales's stock market performance and measured by Total Shareholder Return (which includes reinvested dividends). Half of this stock market performance (10%) is compared to a panel of European companies in comparable industry sectors (including the following eight equally weighted companies: Airbus, Atos, BAE Systems, Capgemini, Dassault Aviation, Leonardo, Rolls-Royce and Safran), and the other half (10%) to the Euro Stoxx index. The calculation is based on a comparison of performance at 31 December 2021 against performance at 31 December 2018.

(ii) Thresholds and objectives attached to the 2019 LTIP performance criteria

As the Gemalto acquisition did not close until March 2019, the Board of Directors deemed that it was not materially in a position to prepare a multi-year budget plan for the combined Thales + Gemalto group in order to set realistic objectives for the Chairman and CEO across this new scope for the three financial years 2019, 2020 and 2021 by the time of the Combined Annual General Meeting on 15 May 2019.

Therefore, all the parameters attached to the performance criteria of the 2019 LTIP (triggering thresholds, quantified objectives, targets, etc.) will be established, in a way that is both demanding and motivating, by the Board following approval of the Group's multi-year budget plan, which is scheduled for September 2019. Thales will make this information public as soon as it is available.

After the end of the 2021 financial year, the Board of Directors will disclose the number of performance units that actually vest following a review of the achievement of said performance conditions.

(iii) Additional 2019 LTIP vesting criteria⁽¹⁾

Payment of the performance units is subject to the Chairman and CEO still being with the Company at the end of the four-year vesting period. If he should leave the Group during the vesting period, all performance unit entitlements shall be forfeited. Entitlement shall only be maintained in the event of death, disability or retirement. The value of each vested performance unit will correspond to the value of the Thales share at the close of trading on 24 February 2023, the last published price before the performance units are vested to the grantee.

The Chairman and CEO must hold the Thales shares delivered to him at 50% of the net after-tax gain from the LTIP, until he has accumulated a portfolio of shares equivalent to one year's fixed salary, and hold onto these shares for his entire term of office as Company representative.

In accordance with section 24.3.3 of the Afep-Medef Corporate Governance Code and the Internal Code on Insider Trading, the Chairman and CEO has undertaken not to use any hedging instruments in relation to his risk exposure on any shares or performance units he holds.

d) Other items of the Chairman and CEO's compensation

The Chairman and CEO is entitled to three other items of compensation subject to related-party commitments:

- severance pay;
- private unemployment insurance;
- deferred incremental and conditional compensation.

These three items of compensation, described in section 4.4.1, were put in place in February 2015 for the benefit of the Chairman and CEO after his employment contract with the Group was ended.

As they were related-party commitments, these three items were approved by the Annual General Meeting of 23 May 2018 (resolutions 16 to 18) as part of his reappointment as Chairman and CEO.

The Chairman and CEO is furthermore entitled to other items of compensation, also unchanged since 2018, as follows:

- legal and tax advice;
- private healthcare benefits identical to those offered to senior executives;
- directors and officers liability insurance;
- reimbursement of business expenses in accordance with Thales's rules and guidelines;
- an annual medical check-up like other Thales senior executives;
- the services of a chauffeur-driven car.

The Chairman and CEO does not receive attendance fees in his capacity as a Director of Thales.

For more information, please refer to section 4.4.1.

⁽¹⁾ Unchanged from the 2018 compensation policy.

4.5 COMPENSATION OF OTHER EXECUTIVES

The total compensation paid in 2018 to members of the Executive Committee, excluding the Chairman and CEO, totalled k€12,142. This included a variable component of 32.2% for 2017 and 30.46% paid ^(a)

in respect of the 2014 unit plan, which qualifies as compensation. As is the case for the Chairman and CEO, the variable component is based on financial and non-financial performance criteria.

➤ DETAILS OF COMPENSATION PAID TO THE EXECUTIVE COMMITTEE (EXCLUDING THE CHAIRMAN AND CEO) IN 2017 AND 2018

(in € thousands)	2018	2017
	Paid during the financial year	Paid during the financial year
Executive Committee (excl. Chairman and CEO)		
Fixed compensation	4,492	4,489
Variable compensation	3,910	3,528
Compensation in units subject to performance and employment conditions under the 2014 LTI plan ^(a)	3,699	–
Payments due upon retirement	–	502
Benefits in kind	41	32
Total before social contributions	12,142	8,551
Employer social contributions	3,523	2,690
TOTAL EXPENSE	15,665	11,241

(a) Plan maturing in 2018. Half of the total value referred to above was paid in the form of shares.

In addition, at the end of December 2018, the members of the Executive Committee, other than the Chairman and CEO, together had a total of 1,538 stock options, 97,870 performance shares, 45,400 performance units and 13,700 phantom shares. The breakdown by

grant date and characteristics, as well as any options exercised, are shown in Sections 6.2.2.2 and 6.2.3.5 (pages 155 and 161). The summary of transactions carried out by directors, non-voting directors and related persons is shown in section 4.6.

4.6 SUMMARY STATEMENT OF TRANSACTIONS INDICATED IN ARTICLE L. 621-18-2 OF THE FRENCH MONETARY AND FINANCIAL CODE CARRIED OUT IN 2018

In accordance with Article 223-26 of the General Regulations of the French financial markets authority (AMF).

To the best of the Company's knowledge, the following disclosures have been made to the AMF⁽¹⁾, for publication on its website (<http://www.amf-france.org>):

Director's name	Financial instrument	Type of transaction	Transaction amount (in euros)	Unit price (in euros)
Patrice Caine	Share	Payment in kind ^(a)	303,212.00	116.62
Pascal Bouchiat	Share	Sale	289,732.50	118.50
	Share	Payment in kind ^(a)	279,888.00	116.62
Laurence Broseta	Share	Acquisition	21,670.00	108.35
Millar Crawford	Share	Payment in kind ^(a)	93,296.00	116.62
Alexander Cresswell	Share	Sale	299,605.94	97.18
	Share	Payment in kind ^(a)	186,592.00	116.62
	Share	Sale	195,840.00	122.40
Marc Darmon	Share	Sale	6,055.50	110.10
	Share purchase options	Exercise	79,020.00	26.34
	Share	Sale	138,600.00	110.00
	Share	Payment in kind ^(a)	163,268.00	116.62
	Share	Sale	122,000.00	122.00
Armelle de Madre	Share	Acquisition	48,480.00	96.90
Philippe Duhamel	Share purchase options	Exercise	71,486.76	26.34
	Share	Exercise	293,247.70	108.05
	Share	Payment in kind ^(a)	51,312.80	116.62
Sylvie Duhamel ^(b)	Share	Payment in kind ^(a)	9,329.60	116.62
French State (State Holdings Agency)	Share	Endowment of shares to an industrial and commercial public undertaking (EPIC) ^(c)	—	—
Jean-Loïc Galle	Share	Sale	358,763.00	110.05
	Share	Payment in kind ^(a)	209,916.00	116.62
Gil Michielin	Share	Sale	93,947.30	114.85
	Share	Payment in kind ^(a)	93,296.00	116.62
Pierre-Éric Pommellet	Share	Payment in kind ^(a)	209,916.00	116.62
Pascale Sourisse	Share	Sale	220,747.00	110.37
	Share	Sale	326,867.16	113.06
	Share	Payment in kind ^(a)	279,888.00	116.62
David Tournadre	Share	Payment in kind ^(a)	279,888.00	116.62

(a) Partial payment in the form of Thales shares to the value of the units granted under the unit award plan of 16 September 2014 which is subject to performance conditions.

(b) Person with ties to Philippe Duhamel.

(c) Excerpt from AMF Declaration 2018DD535952: "In accordance with the endowment agreement between the State and the EPIC Bpifrance signed on 15 January 2018, a total of 109,999,999 TSA shares were endowed by the State to the EPIC Bpifrance, with the State keeping one preferred share in TSA's capital. TSA holds 54,786,654 shares and 109,573,308 voting rights in Thales's capital, representing 25.76% of the capital and 35.68% of voting rights.

The State and the EPIC Bpifrance have stated that they act in concert within TSA. This transaction was exempted from the obligation to file a proposal for a public offer: see AMF Notice 218C0137 of 16 January 2018.

It does not amend the terms and conditions of the shareholders' agreement between TSA and Dassault Aviation nor the percentages of their holdings in concert in Thales's capital and voting rights. Together, they continue to hold 50.47% of the capital and 64.07% of the voting rights of Thales."

(1) This refers to individuals required to make a disclosure as indicated in Articles L. 621-18-2 a), b) and c) of the French Monetary and Financial Code. The individuals concerned by Article L. 621-18-2 b) of the French Monetary and Financial Code include the members of the Executive Committee.

CORPORATE RESPONSIBILITY AND NON-FINANCIAL PERFORMANCE



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5.1 A CORPORATE RESPONSIBILITY POLICY GEARED TOWARDS SUSTAINABLE ECONOMIC PERFORMANCE

For more than 15 years, Thales has been proactively deploying a strong corporate responsibility policy based on the highest international standards.

This is especially reflected in Thales's commitment to the United Nations Global Compact, which it signed in 2003. Thales upholds the Global Compact's 10 principles relating to Human Rights, labour standards, environmental protection and the fight against corruption. These commitments, implemented on the basis of agreements and best practices guaranteeing that the Group will conduct business responsibly, resulted in Thales achieving the Global Compact's Differentiation Programme "GC Advanced level" in 2012.

The appropriateness of the Group's corporate responsibility policy was also recognised by the Dow Jones Sustainability Index (DJSI). In 2018,

for the second year in a row, Thales was ranked first in the Aerospace & Defence segment in the World version of the Dow Jones Sustainability Index (DJSI). Similarly, non-financial rating agency MSCI awarded Thales a rating of AA for the third consecutive year for its corporate responsibility policy, in an endorsement of the Group's continuing efforts in this area.

Lastly, Thales publishes an integrated annual corporate responsibility report which aims to provide all stakeholders – employees, customers, suppliers, business partners, local communities, public authorities, NGOs, etc. – with details of how the organisation interacts with its ecosystem and uses capital to create this value in the short, medium and long term.

Today this process is monitored at board level by the Strategic and Corporate Social Responsibility Committee.

5.2 RISKS SELECTED FOR THE NON-FINANCIAL PERFORMANCE STATEMENT

When identifying CSR risks for inclusion in the Non-Financial Performance Statement, the Group first narrowed down the list to 15, drawn from a variety of sources:

- the Group's risk mapping;
- the materiality matrix published in the Group's integrated report;
- a list of CSR challenges identified by the Sustainability Accounting Standards Board (SASB), Dow Jones Sustainability Index (DJSI) and non-financial rating agency MSCI as likely to have a material impact on companies in the Aerospace/Defence segment;
- a study of CSR challenges identified by French and foreign companies comparable in terms of size and business segment.

These CSR challenges were assessed by the Group's main support functions⁽¹⁾ which ranked relevant "gross" risks (i.e. before taking into account any remedial measures) in order of importance using impact and likelihood scales.

From that ranking of gross risks, the Group selected six that met the strict definition of Articles L. 225-102-1 III, paragraph 1 and R. 225-105 11° of

the French Commercial Code. Said articles suggest considering for the Non-Financial Performance Statement the main risks (including, where relevant and proportionate, the risks created by the Group's business relationships, products or services) pertaining to the way in which the company takes account of the social and environmental consequences of its business activities, to the impact of its business activities on Human Rights and to the fight against corruption and tax evasion.

The six risks selected on that basis relate to:

1. diversity and inclusion;
2. protecting the health and safety of employees;
3. environmental impacts related to the Group's activities;
4. anticipation of environmental standards in product design;
5. compliance with rules of ethical business conduct (particularly the fight against corruption and influence peddling);
6. vigilance regarding suppliers' compliance with corporate responsibility issues.

⁽¹⁾ Representatives from the Finance, Health, Safety & Environment, Human Resources, Purchasing, Audit, Risks & Internal Control, Strategy & Marketing, Ethics & Corporate Responsibility, and Communications Departments (Thales Foundation), plus the Group Secretary and General Council and corporate management.

These risks are presented in section 3, "Risk factors, risk management and internal control", of the 2018 Registration Document, as reproduced below.

Risk identification

Risk monitoring and management

1. Diversity and inclusion

In a more globalised cultural and technological environment, increasing team diversity and developing a more inclusive corporate culture are key ways to support innovation and creativity thanks to a broader range of approaches, perspectives and ideas.

Lack of diversity could affect the Group's ability to respond to major technological changes, customer expectations and business models, which could in turn have a negative effect on its competitiveness, business activities and profitability.

Since 2016, proactive targets have been introduced Group-wide to strengthen diversity and inclusion in the broad sense of the term. These targets are covered in a quarterly monitoring dashboard (see section 5.4.2).

In an effort to encourage team diversity and employee inclusion and ensure differences are respected, the Group has adopted a dedicated governance system structured around a Steering Committee, a Diversity and Inclusion Council and a central Diversity and Inclusion function.

In terms of gender diversity and professional equality, the Group has been rolling out negotiated action plans in France since 2004 under agreements signed with trade unions.

Since 2009, Thales has been signatory of a European agreement, called IDEA, which includes gender equality commitments.

The Group's initiatives in this area are discussed in greater detail in section 5.4.2.

2. Workplace health and safety

If they were mismanaged, the changes in work patterns, the tightened regulatory provisions relating to the working environment, and the issues around industrial safety would expose Thales to sanctions, resulting in costs and risks to its image.

Lack of a high-quality work environment may also negatively impact teams' motivation.

The Group has set up a special body that aims to prevent workplace health and safety risks in the countries where it is present, in the major entities, at Thales sites and at external sites. This also includes anticipating risks related to substances and products and managing major health crises that might occur internationally.

The Group Human Resources and Health, Safety and Environment departments have introduced tangible measures to prevent risks related to workplace health and safety and improve quality of life and wellbeing at work (see section 5.4.3).

The risks to which employees and outside contractors may be exposed are assessed and monitored on a regular basis throughout the Group. Cross-functional steering committees comprising specialist doctors and/or officers from the HSE network meet several times a year (see section 5.4.3).

3. Environmental impacts related to the Group's activities

Emissions generated by the Group's business activities have the potential to affect the environment, while the use of Group products by customers may contribute to the production of greenhouse gases that contribute to global warming.

However, the Group's exposure to these risks of environmental damage is limited to the extent that its core business is engineering and software development.

That said, should some of its industrial operations fail to comply with environmental laws and regulations, the Group would be exposed to sanctions, damage to its image and potentially, refusal by some customers to do business with Thales.

Furthermore, the risks resulting from climate change (natural disasters, supply chain disruption, market instability, etc.) could have a negative impact on the Group's performance and its business model.

Thales updates its environmental risk analysis on a regular basis in accordance with its business activities, scientific and technical developments and regulatory changes. To support this analysis, which also includes the Group's corporate social responsibility, the Group has introduced an organisational structure and resources at all its sites to control and limit the environmental impacts of its activities (see sections 5.6.2 and 5.6.3).

Total provisions for environmental risks amount to €4.85 million at 31 December 2018.

In 2018, the Group also analysed its main product lines and incorporated an eco-design policy for managing new projects. This is designed to reduce the impact of product use as regards energy efficiency and a low carbon footprint.

Lastly, in recent years Thales has performed regular assessments of its sites' exposure to natural disasters in order to reduce its vulnerability to the effects of climate change (floods, hurricanes, fires, water stress, etc.).

Risk identification

Risk monitoring and management

4. Anticipation of environmental standards in product design

Changes in environmental regulations may rule out certain technical or technological solutions, particularly for certain suppliers or subcontractors. This may result in the need to qualify and implement alternative solutions. It may also result in changes to the supply chain or the upgrading of industrial resources, with the costs and timescales associated with such changes.

In addition, regulatory differences between countries and constant changes to regulations make it more difficult for Thales to verify the compliance of marketed solutions and could even put the company at a competitive disadvantage.

Lastly, some customers' expectations may exceed regulatory requirements alone and in some cases lead to solutions that are technically impossible or to substantial additional costs.

The Group has promoted a responsible product policy for several years.

It produces an analysis of environmental risks and their impact on the supply chain, on product design and on conditions for accessing various markets that is updated on a regular basis based on new challenges and regulatory changes (e.g. REACH in Europe, use of chemicals, etc.).

These factors relating to regulations or to meeting customer needs are passed on to suppliers and the supply chain through contracts and/or specifications.

Solutions for replacing hazardous substances are being developed ahead of regulatory deadlines.

See section 5.6.4 for more details.

5. Compliance with rules of ethical business conduct (particularly the fight against corruption and influence peddling)

Thales's business encompasses a variety of sectors in more than 50 countries.

Failure to comply with applicable laws and regulations relating to business ethics and, in particular, the fight against corruption and influence peddling, may have serious legal and financial consequences for the Group and severely damage its reputation.

The Group's anti-corruption compliance programme, which has been in place for many years, has been further strengthened to take account of recent legislative and regulatory changes, especially those resulting from France's "Sapin II" law.

The Group's anti-corruption policy is described in section 5.7.1.

6. Vigilance concerning supplier compliance with corporate responsibility issues

Thales's purchases account for around 44% of its revenues. These purchases are made worldwide from more than 15,000 suppliers and subcontractors of all sizes, many of whom have their own subcontracting chains.

Despite the Group's increased vigilance, it is difficult to guarantee that all stakeholders in the upstream supply chain will be fully compliant with the laws relating to social, environmental and ethical responsibility.

Should any of them fail to comply, the Group's business, image and profitability could be impacted.

Monitoring and management of this risk are included in the Duty of Care Plan (see section 5.7.3.2) pursuant to law No. 2017-399 of 27 March 2017 on the duty of care of parent companies and contracting companies.

The Non-Financial Performance Statement also includes the disclosures required under Article L. 225-102-1, III, paragraph 2 of the French Commercial Code⁽¹⁾.

(1) These include disclosures about the consequences for climate change of the company's activities and the use of the goods and services it produces, its corporate commitments to sustainable development, the circular economy, the fight against food waste and food insecurity, respect for animal welfare and responsible, fair and sustainable food, collective agreements concluded within the company and their impact on the company's economic performance and employees' working conditions, initiatives aimed at combating discrimination and promoting diversity and measures taken in favour of people with disabilities. See the related summary table in Section 9.

5.3 NON-FINANCIAL PERFORMANCE DASHBOARD

Issue/Risk	Policies	Key performance indicator	Outcomes 2017 ^(a)	Outcomes 2018
1. Diversity and inclusion	<p>Thales's commitment: Bring out the best in everyone <i>"At Thales, I work in teams that are open to diversity and value our differences and backgrounds."</i></p> <p>Cross-functional initiative taken by the Executive Committee as part of the Group's Ambition 10 strategic vision Being a global leader with a strong local presence means embracing diversity in all its forms: gender, age, origin and nationality. A truly diverse, global organisation has an additional advantage when it comes to competitiveness and retaining top local talent. Diversity stimulates innovation and creativity thanks to a broad range of approaches, perspectives and ideas. Inclusion, which presupposes the acceptance of diversity and recognition of its importance, will improve Thales's collective performance.</p>	% of women among new hires	30.6% ^(b)	32% ^(c)
		% of women in top positions	15.6% ^(d)	16.5% ^(e)
		% of Management Committees ^(f) with at least three female members	33.6%	49%
2. Workplace health and safety	<p>Thales's commitment: Be attentive to everyone <i>"At Thales, my manager trusts me: he gives me responsibility and looks out for my wellbeing."</i> <i>"At Thales, I have all the resources and support I need to maintain a healthy work-life balance."</i></p> <p>Thales's commitment: HSE policy <i>"Thales is committed to providing a safe and healthy working environment for its employees at its own sites and at external sites."</i></p>	Absenteeism rate	2.54%	2.4%
		Frequency rate of accidents at work	2.19	2.01
		Percentage of employees working at an OHSAS 18001/ISO 45001-certified site	82%	83%
3. Environmental impacts related to the Group's activities ^(g)	<p>Thales's commitment: HSE policy <i>"Thales is committed to safeguarding the environment by limiting impacts (energy, climate, natural resources, etc.) and preventing pollution risks."</i></p>	Change in energy consumption (in thousands of toe)	1%	0.5%
		Change in energy intensity (in toe/€m)	-9%	-11%
		Monitoring of CO ₂ emissions (scopes 1 & 2):		
		• in million tonnes of CO ₂	4%	-5%
		• in tonnes of CO ₂ /€m	-6%	-16%
		Change in production per person of non-hazardous waste	+11%	+3.5%
		Recycling rate of non-hazardous waste	55%	59%
4. Anticipation of environmental standards in product design	<p>Thales's commitment: HSE policy <i>"Thales is committed to designing, purchasing, producing and providing solutions, products and services that meet health, safety and environmental requirements."</i></p>	Industrial processes affected by the substitution of chromates	—	In line with plan
		Assessment of the reduction in products' environmental impact	—	1 representative eco-product in each activity segment
		Development of tools for the eco-design awareness programme	—	Materials available

(a) Data provided for comparison purposes, where available, in accordance with Article R. 225-105-1 of the French Commercial Code.

(b) Total hires (permanent, temporary and work-study contracts).

(c) Total hires (permanent, temporary and work-study contracts).

(d) Workers in grade 10, 11 or 12 positions.

(e) Workers in grade 10, 11 or 12 positions.

(f) Management committees of the Global Business Units, Business Lines and Key Countries.

(g) Changes relating to the environmental performance indicators shown below are expressed with reference to 2015.

Issue/Risk	Policies	Key performance indicator	Outcomes 2017 ^(a)	Outcomes 2018
5. Compliance with rules of ethical business conduct (particularly the fight against corruption and influence peddling)	Thales's commitment: zero tolerance for corruption <i>"Ethical conduct, integrity and compliance with regulations must be the rule for all Group employees throughout the world and at all levels of the company."</i>	Number of operational entities that assessed risks of corruption	110	113
		Anti-corruption training ^(c)	1,035	4,563
		Alerts received via the Group's alert system <i>Including alerts about acts of corruption</i>	16	15
			None	None
6. Vigilance concerning supplier compliance with corporate responsibility issues	Thales's commitment: Get all its suppliers to adhere to its approach to Corporate Responsibility <i>"Thales establishes relationships of mutual cooperation with its suppliers, based on mutual loyalty."</i>	Supplier performance in domains of corporate responsibility (average score out of a total of 10)	8.3	8.7
		Thales requires all its suppliers to comply with commitments relating to Human Rights, labour law and environmental protection.	Percentage of class A ^(b) suppliers assessed in terms of their environmental maturity	67%

(a) Data provided for comparison purposes, where available, in accordance with Article R. 225-105-1 of the French Commercial Code.

(b) All suppliers accounting for 80% of purchasing volumes.

(c) The 2018 training campaign focused on e-learning, which was not the case in 2017.

5.4 HUMAN RESOURCES GEARED TOWARDS COMPANY PERFORMANCE

Aware that its success depends on innovation, expertise and collective performance, Thales has chosen to invest in sustainable and responsible relations with its employees.

The Group's long-term strategic vision, "Ambition 10", the principles of which were defined in 2013, places employees at the heart of the Group's long-term growth plan.

This strategic vision is based on a talent development policy capable of attracting, developing and retaining the best talent, to support the Group's digital transformation, and to promote and deploy a leadership model as well as a culture of diversity and inclusion which measures up to the challenges the Group must meet.

With cohesion and commitment playing a decisive role in the Group's ability to achieve its objectives, in 2017 Thales wanted to formalise three sets of commitments to its employees based around three unifying ideas: bring out the best in everyone, develop together in a changing world and be attentive to everyone. As part of a participative initiative, during the second half of 2017 the Group's employees were invited to put forward drivers and initiatives aimed at ensuring the effectiveness of these commitments and in doing so to work together to define Thales's future identity. "Commitments offices" were created at the local level to roll out these commitments. In 2018, the Executive Committee promoted three initiatives that were especially beneficial to employees. The first, "Time for Innovation", allows employees to allocate time to innovation for the projects of their choice, as a way of supporting innovation and

experimentation. The second initiative, "Collaborative Perks", is a platform that connects employees so that they can share services. The third initiative, "Multiway Feedback and Evaluation", will foster a more constructive and transparent culture as part of the professional development framework for each employee.

At the same time, Thales further developed its candidate attraction policy through measures aimed at boosting its visibility to young graduates on social networks, through more targeted content and the use of dedicated applications.

In terms of professional training, the digital transformation forms an integral part of the strategy of the Thales Learning Hub, Thales's new university, which opened on 6 September 2017 and which promotes innovative teaching methods.

Based on the conviction that innovation comes from a cross-disciplinary approach and profile diversity, the Group stepped up its policy in favour of diversity and inclusion, in particular by continuing to deploy mentoring and networking programmes and awareness campaigns in 2018. As part of this effort, a central Diversity and Inclusion function was created in January 2018 to reflect Thales's desire to become a more diverse and inclusive company and implement its ambitious commitments.

This momentum contributes to the Group's Corporate Social Responsibility (CSR) initiative, which, since 2014, has involved executives at the highest levels of responsibility thanks to a specific CSR objective, taken into account when determining their variable compensation.

5.4.1 Attracting, retaining and developing talent

To meet employees' expectations, guarantee the best experience within the company, offer professional development opportunities and attract new talent, Thales has divided its commitments into three priorities.

These commitments aim to:

- bring out the best in every employee by providing access to the best resources for developing their skills and recognising and fairly rewarding their contribution to collective performance;
- develop together in a changing world. Thales is thus committed to ensuring that its employees have constant access to stimulating career opportunities in different countries, business areas and functions, and that they benefit from a digital environment and a culture of experimentation that favours innovation;
- be "attentive to everyone" by ensuring in particular that employee benefits are among the best on the local market and that employees have the trust and necessary support of their management.

The functions in charge of the above within the Group-level Human Resources Department are Global Resourcing (attracting and hiring talent), Talent and Culture (professional development and employee training), and Compensation and Benefits (the Group's compensation system). These central functions define the guidelines and rely on each of the Group's countries and GBUs to deploy initiatives designed to achieve the targets set.

Mapping of employment within the Group

The breakdown of the Thales group's 66,352 employees⁽¹⁾ by geographic area and level of responsibility demonstrates:

- its international footprint, with 31,032 employees (46.8% of the total workforce) working outside France at the end of 2018;
- its highly qualified workforce, 78.1% of whom hold a position equivalent to engineer, specialist or manager;
- the presence of women, who make up 23.6% of the global workforce;
- the proportion of long-term jobs, i.e. open-ended contracts (97.4%);
- the volume of full-time jobs (93.1%);
- the attention paid to the employment of over-fifties (35.6% of employees are aged 50 and over) and the integration of young people (34.6% of employees are under the age of 40).

In comparison with the previous year, employees under Group management increased in 2018 (66,352 versus 65,118 in 2017). In addition, Thales recruited 5,220⁽²⁾ employees in 2018 on open-ended employment contracts, demonstrating the Group's hiring momentum and attractiveness.

5.4.1.1 Initiatives to attract talent

The success and results achieved by Thales depend on the company's ability to seek and attract top talent from the various labour markets. The company looks for people from different backgrounds who will have the same commitment and determination as all Thales employees to act as ambassadors.

5.4.1.1.1 Continuity of the company's employer brand, particularly through the use of digital technology and social media

Unveiled in 2014, the company's employer brand plays a key role in attracting new talent around the world and increasing diversity within teams.

Continuity of the company's employer brand

To support its ambitions for growth, the Group continues to seek new talent around the world through global recruitment campaigns, with the aim of hiring employees from a wide range of backgrounds in terms of gender, training, experience and culture. The Global Resourcing function is responsible for enhancing the Group's attractiveness and recruiting the talent needed to deploy the "Ambition 10" strategy.

In a world focused on digital technology, particular attention is paid to hiring the younger generation.

These initiatives have also helped support the development of regional skills centres in India and Romania.

Competitions to boost attractiveness

Aware that electronic and cyber security profiles are rare in the employment market, Thales is continuing to take innovative action in order to attract candidates with expertise in these areas. To this end, Thales is involved in a variety of events and challenges such as the "cyber security challenge" (European Cyber Week) and the "BattleDev" hackathon, organised by the company HelloWork. These recruitment events, targeted at developers, take place in the form of an online programming contest and are designed to identify candidates with talent in this domain.

The aim of these initiatives is to increase awareness of the Thales employer brand and boost the Group's appeal so as to attract new talent.

Digital and social media attractiveness

With the internet now the number one source of information and job searches, in 2018 Thales continued to step up its presence on social networks. At the end of 2018, the Group had more than 375,000 followers on LinkedIn.

Thales has also stepped up its presence on websites specifically for young graduates as well as on generic job sites, and publicises opportunities within the company through new online tools such as Work4us, a recruitment app that sends out offers across several platforms, and Amplify, which creates in-house ambassador networks that then share content approved and posted by the Communications Department.

Thales renewed partnerships with several recruitment sites in late 2018 and, through the use of the Multiposting and eQuest solutions, now multicasts job vacancies to some 50 recruitment and social media sites. A high number of applications are now received via social media, online recruitment sites and the Thales website. In France, these channels account for nearly 70% of applications (or more than 135,000).

Thales has also developed interactive interfaces to encourage people to learn more about the Group in a more innovative way. Available since mid-2015, the new Thales mobile app allows users to find job vacancies and recruitment events within the Group, as well as offering the opportunity to apply via smartphone.

Thales also offers a unique virtual reality experience at recruitment forums and events using HTC Vive technology, which allows potential candidates to learn more about the space market interactively.

(1) In this chapter, Thales uses the term "employee" to designate all active employees.

(2) This figure does not include the 1,658 work-study contracts in 2018, nor does it include the conversion of short-term employment agreements or apprenticeship agreements into open-ended employment contracts. In 2017, 4,708 employees were recruited on open-ended employment contracts.

5.4.1.1.2 Educational partnerships, links with schools and students, and professional integration of young people

Educational partnerships and links with schools and students

Students from schools and universities are all potential future Group employees. To help them throughout their schooling and higher education and facilitate their integration into the workforce, Thales has formed a number of partnerships with schools and universities in France and abroad.

Promoting careers in science and technology

The Group is also keen to encourage an interest in science and technology careers among secondary school students.

In 2018, Thales's companies in France repeated the "First Internship with a Company" campaign in partnership with French non-profit organisation Elles Bougent. As part of the campaign, internships were offered to young female Year 10 students to allow them to discover various aspects of the Group's business.

Our employees, our best ambassadors

Thales organised more than 125 events at educational establishments in France in 2018 and took part in almost 75 forums. These initiatives, conducted at schools and universities, relied in particular on the support of an in-house network of almost 120 "Campus Managers" – alumni of partner schools and now Group employees who act as Thales ambassadors to the students.

According to the various rankings of the preferred companies of employees and recent graduates – Universum, Capital, Glassdoor and LinkedIn – Thales is on the podium as one of the most attractive companies. According to the latest ranking by Le Figaro and Cadremploi in May 2018, Thales ranks third (after Google and Airbus) in the overall ranking and first in the ranking by students and recent graduates of engineering schools.

Professional integration of young people

As part of its Human Resources strategy, Thales has implemented measures aimed at recruiting young people not just to meet its hiring needs but also to help young people enter the workforce.

Continuing its programmes to promote young people's integration into the workforce, Thales continued to show its commitment with the signature of a new agreement with the French government on the Development of Growth and Employment, which was entered into in February 2017 for a three-year term. In particular, this agreement provides for the number of work-study students in France to be maintained at 5% of the average annual workforce.

Under this agreement, Thales has committed to making approximately 6,500 new hires during the period from 1 January 2016 to 31 December 2019 in France, with 35% of candidates aged under 30 and on open-ended contracts.

To support young people at professional baccalaureate or BEP level currently on work-study programmes and who intend to remain in education to access a higher level of qualification (BTS, DUT), the

Group also awarded 24 "Prix Thales Education" bursaries in France in November 2018.

Each year, the *Semaine de l'Industrie* (Industry Week) is an opportunity for the Group's French sites to host secondary school and university students in partnership with non-profit organisation Elles Bougent.

As a training method, work-study contracts are an important component for Thales in integrating young people. In 2018, for example, the Group signed 1,658 work-study contracts worldwide, notably in France (1,198), Canada (157), the United Kingdom (74), and the United States (68).

Thanks to all these initiatives to boost its attractiveness, and despite the slowdown in certain employment markets and necessary efforts to adapt in certain countries, the Group hired 8,133 employees in 2018 (versus 7,233 in 2017): 5,220 on open-ended employment contracts, 1,255 on short-term employment contracts and 1,658 on work-study contracts. France, Australia, the United Kingdom, the United States and Canada saw the most hires. A large majority of new hires were offered long-term employment.

In France, of the 4,070 employees hired in 2018 (3,753 at end-2017), a total of 2,270 were hired on open-ended employment contracts, 1,198 on work-study contracts and 602 on short-term employment contracts.

5.4.1.1.3 A compensation system that gives employees a stake in the Group's results

An integral component of its employment policy, the Group's compensation system combines collective results and individual performance. Its implementation process is based on transparency, equity and dialogue.

An Annual Activity Discussion is held at the beginning of the year between managers and each member of their teams to define individual goals for the upcoming year and assess the results of the previous year. Worldwide, 93.1% of employees took part in such a discussion in 2018.

Compensation and salary progression

Individual pay rises depend on fulfilment of responsibilities, achievement of annual targets, market positioning and allocated budget. Since 2000, the compensation and benefits policy applied in all Group companies has also included a global variable compensation plan for employees in a position with a level of responsibility of 8 to 12. The plan defines a target rate of variable pay for each level of responsibility based on the achievement of the employees' individual targets and the business results of the Group and the company to which they belong.

In 2018, compensation rose by over 2.5% in France. This increase includes both individual pay rises and, where applicable, the collective pay rises negotiated with trade unions.

Payroll, including profit-sharing and incentives totalled €6,459 million in 2018, compared with €6,292 million in 2017. The +€167 million increase in payroll includes a negative foreign exchange rate effect of –€62 million.

(in millions of euros)	2017	2018
France	3,628	3,737
Europe excluding France	1,486	1,536
USA, Canada, Australia	874	903
Rest of world	304	283
TOTAL	6,292	6,459

Note: the changes in payroll in France shown in this table differ from the progression in average compensation of the headcount because they account for changes in headcount and its structure and changes in the age pyramid, as well as developments in profit-sharing and incentive schemes.

Incentives and profit-sharing in France

In order to strengthen the loyalty of employees beyond their local entity and solidarity among the Group's French entities, in 2004 entities in the country entered into a pooled profit-sharing agreement. The amount of the global profit-sharing reserve distributed in 2018 for financial year 2017 was €46.2 million.

Thales's share as parent company for financial year 2017, paid in 2018, amounted to €1.37 million.

In addition, a Group agreement on pooled profit-sharing was signed on 23 February 2017 to give employees more of a stake in the Group's results, development and improved performance and demonstrate their commitment to the principle of solidarity among employees and the companies that make up the Group.

The application of this agreement resulted in the payment in 2018 of a total amount of €51.4 million for financial year 2017. Thales's share as parent company for financial year 2017, paid in 2018, was €1.4 million.

➤ GROSS AMOUNTS PAID OUT IN INCENTIVES AND PROFIT-SHARING IN RECENT YEARS

(in millions of euros)	2018	2017	2016	2015	2014	2013
Profit share paid	46.2	50.8	34.9	18.7	15.3	22.6
Incentives paid	51.4	38.5	45.3	57.0	43.5	42.4

Group employee savings schemes

The Group's employee savings schemes in France are made up of a Group savings scheme (PEG) set up in 1998 and, since 2007, a collective retirement savings plan (PERCO).

At 31 December 2018, the total savings under management by Group schemes amounted to €1,073 million (compared with €1,082 million at end-2017), held by 54,035 former and current Group employees.

Group savings scheme (PEG) and employee shareholding

At the end of 2018, assets under management in the Group savings scheme (PEG) stood at around €698 million, including €343 million excluding the employee shareholding fund. Under the Group savings scheme, the employee shareholding fund is the main framework within which Group employees hold company shares.

Set up for the employee share offer in 1998, the fund holds shares acquired during the offers in 2000, 2002, 2004, 2008, 2011, 2013, 2015 and 2017.

At 31 December 2018, assets under management amounted to approximately €355 million, consisting of Thales company shares managed within the PEG on behalf of around 27,099 shareholders.

Including shares from free share plans, the shareholding of current (or former) employees in Thales amounted to 2.62% of the Company's share capital at 31 December 2018.

Collective retirement savings plan in France (PERCO)

Set up in 2007, the collective retirement savings plan (PERCO) gives employees the opportunity to set aside savings for their retirement with the Company's help.

At 31 December 2018, assets under management as part of the PERCO plan amounted to €375 million, on behalf of 36,251 beneficiaries (compared with €364 million on behalf of 34,300 beneficiaries in 2017).

Allotment of free shares and "phantom shares" subject to performance conditions

On 27 September 2018, Thales's Board of Directors approved a plan to allot free shares, all subject to performance conditions, to 738 French senior executives.

A plan to allot "phantom shares" (monetary equivalent of a Thales share), all subject to performance conditions, was also put in place for 322 non-French senior executives.

A total of 1,060 employees in 29 of the Group's host countries took part in these two plans.

Short-and medium-term incentive schemes lasting between 2 and 3 years have also been introduced for technicians, engineers and managers.

5.4.1.2 Support for talent development

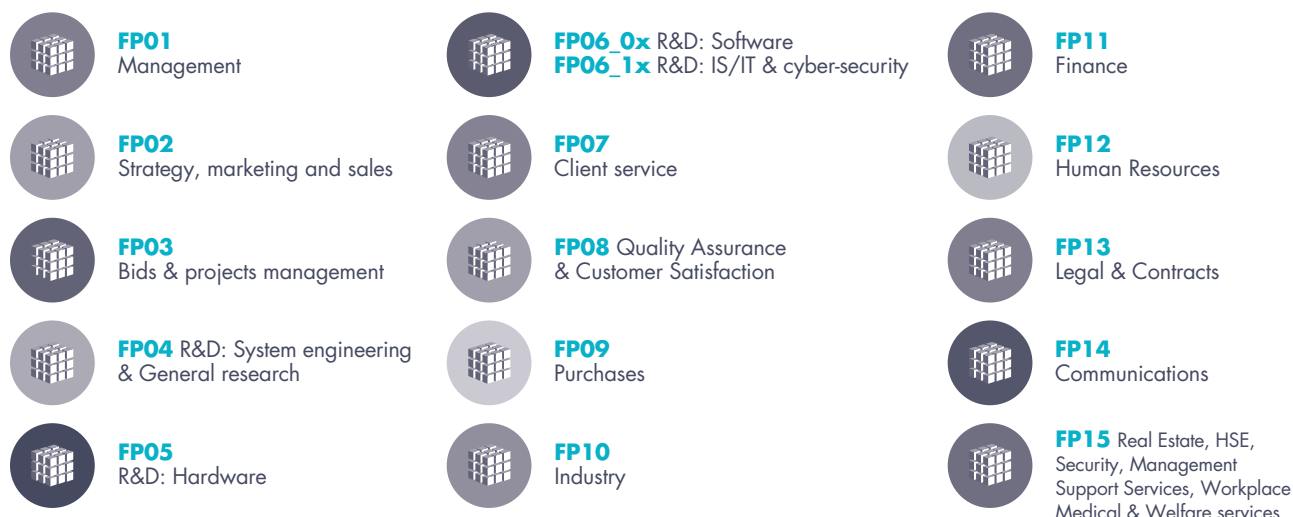
Thales believes that the individual development of each employee is a prerequisite for the Group's success as a whole. In a constantly changing economic and technological environment, the Group's professional development policy relies, in particular, on forward planning, and results in its ability, firstly, to predict key changes or innovations and to prepare action plans to deal with them, and secondly, to train and support every employee with a view to diversifying their experience, providing them with opportunities and thus designing a better career path.

5.4.1.2.1 Management of job families

Thales has identified 15 generic job families of equal importance for the Group's success. Each job family is managed at the highest level and benefits from the expertise of an operational leader and an operational committee, an HR contact person and a training support team to anticipate changes and future trends, as well as to put forward a collective professional development action plan.

The Group's framework is regularly adapted to take into account changes in certain job families.

➤ THE VARIOUS JOB FAMILIES



Management of key and critical skills

In a highly competitive economic environment, employees' technical skills are a major advantage. Skills management provides substantial leverage in terms of professional development. To this end, the Group has developed a "skills management" approach for its key job families (R&D, Industry, Customer Services), centred on the identification and sharing of available technical skills. This approach means that the professional development plans deployed by the Group (skills transfer, coaching, training, recruitment of candidates with specific backgrounds) can be fine-tuned to anticipate future operational needs and maintain teams' key skills.

At end-2018, most employees of the job families concerned worldwide had listed their skills using a tool designed for that purpose and which is continuously being improved. Functionality testing programmes will be launched in 2019 so that the process can be managed across more job families using the Workday tool, which is now the Group's HR tool that makes the process easier to access and more flexible.

5.4.1.2.2 Measures geared towards diversified career paths

Anticipation to help safeguard career paths

The forward-planning process, supported by negotiations with the Group's French and European social partners, contributes to the success of the job families' management mechanisms. It guides Thales's social policy in Europe, with substantial involvement from three players: the employer, the employee and employee representatives.

The Group has recognised the fundamental role played by employee representatives in setting up a forward-planning policy for changes within the various job families and job roles. It signed an agreement in France in 2006 and again in 2013 aimed at developing workforce and skills planning. As the 2013 agreement was due to expire in 2018, negotiations were held to define the principles for developing the skills the Group will need in the next few years.

The agreement also defines the conditions, procedure and measures associated with Active Employment Management in the event of foreseeable economic difficulties linked to new skills requirements, or in the case of technological breakthroughs that could have an impact on employment under certain job families.

This Active Employment Management was implemented in 2018 in the Microwave and Imaging Sub-Systems (MIS) business line (formerly Thales Electron Devices) and Thales Avionics Electrical Systems.

The employee as active participant in his or her professional development

Thales regards the development of each employee as a key component of the employee experience. For many years, the analysis of job families, the changes they have undergone and their strategic priorities have been communicated to employees so that they can plan their career development accordingly.

Thales provides employees with digital tools (e-HR Together & Workday) allowing them to create their own in-house CV with their experience, skills and career development aspirations. Each employee can also view job offers on the internal exchange and submit their CV online.

The Group also ensures that its employees receive a professional development discussion each year. This discussion is a special time when the manager and employee sit down together to identify development activities such as training, mentoring, participation in working groups or role play.

In 2018, a total of 88.3% of Thales's employees worldwide had a professional development discussion with their manager.

Mobility and career paths

Faced with increasingly competitive markets, employee mobility and professional development increase the Group's ability to adapt to future changes and to offer rich and varied career paths to employees. Active career management is thus encouraged.

Professional mobility takes place both within each job family and business area and through "career gateways", which are identified by job family names that apply throughout the Group.

The Group also encourages employees to be geographically mobile, facilitating this by offering similar support in all European countries. Thales guarantees each employee access to information about job vacancies on a confidential basis in the context of internal mobility. A total of 1,329 employees chose to move within France in 2018.

International mobility

During the year, international mobility management within the Group underwent a digital transformation. The Workday tool, for instance, has been supporting employees with their international career planning since mid-April 2018.

Thales has implemented several processes to encourage international mobility:

- at end-December 2018, the International Business Volunteers (VIE) programme had made it possible for 76 young people aged between 18 and 28 from the European Economic Area to currently be posted to a foreign country for a period of 6 to 24 months;

- the "Career Plus" programme matches operational needs with the desire of employees of all kinds aspiring to temporary international mobility. At end-December 2018, a total of 93 employees were enrolled in this programme;
- other international secondments (long-term assignments, short-term assignments, international commuting) depend on the Group's strategy and the needs expressed by the countries of operation and the GBUs.

Thanks to these initiatives, at 31 December 2018, a total of 744 Group employees (coming from 28 countries of origin to 63 destination countries) were on international mobility assignments, in all business segments.

International mobility postings are spread across every region of the world, with 25% in the Middle East, 34% in Europe (France included), 19% in Asia-Pacific, 16% in North and South America, and 6% in the rest of the world. Participating employees were primarily from Europe, especially France (66%), with smaller numbers from Asia-Pacific (Singapore, Australia, etc.) and North America, as well as some emerging economies.

These programmes also contribute to the achievement of the Group's diversity goals.

5.4.1.2.3 Training to support professional development

Thales's commitment to training stems from the view that building a successful career path means maintaining every employee's expertise at all times, as a guarantee of employability. The Group's training policy has a dual aim:

- meeting the needs of the Group's companies by implementing growth and performance improvement projects and supporting the Group's transformation;
- taking into account employees' individual aspirations in terms of skills development with regard to their job or professional mobility.

Training programmes to meet the needs of the Group and its employees

In France, training is organised through a shared training service in order to:

- create a combined organisation to serve the Group's companies;
- position the companies' priorities and key Group issues around major topics;
- develop training consultancy expertise at the most local level.

Thales Learning Hub: "to share knowledge and transform Thales"

Present in ten countries⁽¹⁾ (representing approximately 90% of the global workforce), the Thales Learning Hub (formerly Thales University) contributes to employee training and professional development in the various countries where the Group has a footprint, while ensuring a common culture.

The purpose of the Thales Learning Hub is to enable employees to adapt their individual and collective skills to changing job roles, while supporting the Group's strategic goals. In 2018, more than 100,000 hours of digital training were provided worldwide (an increase of 40% in four years) and the Thales Learning Hub international portal was used by more than 28,600 employees (an increase of 70% in four years). Digital learning has therefore played a very significant role in employee training in recent years.

In France, 14,927 employees attended training courses at the Thales Learning Hub in 2018. A total of 204,409 training hours were provided by the Thales Learning Hub in 2018 in France, which was more than 27% of all training hours provided in France.

In 2018, efforts to develop the training offer continued with the introduction of new multimodal programmes comprising a range of different teaching methods provided through the Thales Learning Hub international portal. One major technology in particular (BLENDEDX) has made it possible to design and launch multimodal training pathways that combine the full range of teaching and learning methods (classroom and remote sessions, synchronous and asynchronous methods and content produced by employees).

In terms of innovation, in 2017 Thales Learning Hub launched the "Quick Apply" service aimed at strengthening the principle of "co-creation" of digital content with the support of the operational departments (rapid video recording made available to employees, development of "digital capsules"). The service continued to be available in 2018 and more than 100 videos have been produced by Group employees since it was launched.

Still related to innovation, a new digital learning package was launched that offers considerable added value. This virtual classroom allows employees to receive training remotely, eliminating the need to travel each time. Sessions are led by trainers who also log on remotely.

Key training figures for 2018

Group employees completed 18.7 hours of training on average in 2018, with 76.5% completing at least one training course. Overall, a total of 1,214,970 training hours were received Group-wide in 2018.

In France, the number of training hours per employee (21.1 hours) remained the same. The amount of spending on training was 3.98% of payroll (versus 3.98% in 2017).

5.4.1.2.4 Development of a leadership model

The Group developed and launched a leadership model in 2014 that defines the professional behaviours expected of leaders. It comprises six key skills⁽²⁾ which are described through desirable and undesirable types of behaviour.

The leadership model has given managers around the world a uniform understanding of the Group's expectations in terms of leadership and has also served as a basis for the professional development opportunities offered to managers and leaders. Since 2015, professional development solutions to prepare tomorrow's leaders have changed in all of the Group's major countries of operation. They include 360° questionnaires, development centres, and training days conducted by the Thales Learning Hub on each of the six leadership model skills.

Between 2014 and the end of 2018, more than 3,600 360° questionnaires had been completed within the Group (2,675 of them in France), the format having been revised to allow employees to receive constructive feedback on the six key skills. In addition, more than 1,800 leaders benefited from a development programme designed around the leadership model. The leadership model is now integrated into all the Group's HR processes and systematically incorporated into all collective development initiatives.

In 2016 a specific initiative was rolled out that was also based on the leadership model. Dubbed Team-Up!, it is designed to create team engagement and enthusiasm for the "Ambition 10" objectives and improve the teams' collective effectiveness. Thales's Executive Committee was the first team to test the initiative, working on their collective leadership through a variety of questionnaires. Since its launch, 90 management teams have had the opportunity to benefit from this initiative. In 2018, a total of 30 people were trained in how to facilitate Team Up!, allowing it to be deployed more widely. The goal is to improve not only the skills of the Group's leaders but also the effectiveness of each team and consequently the collective performance.

(1) Germany, France, Italy, the Netherlands, the United Kingdom, Canada, the United States, the United Arab Emirates, Australia and Singapore.

(2) Managing complexity, acting with responsibility and ambition, succeeding through cooperation, influencing key players, engaging and developing teams, and displaying emotional intelligence.

5.4.2 Diversity and inclusion

The commitments made by the Group attest to its determination to act responsibly and fight all forms of discrimination. Thales is committed to having its employees work in teams that are open to diversity and that promote differences and career paths in order to bring out the best in everyone. These commitments are also formalised in the company's Code of Ethics.

One of the objectives of the Group's "Ambition 10" strategic vision is to build a global, diversified company.

In early 2016, the Group's Chairman announced ambitious commitments for the next few years in terms of the percentages of women hires (40%), access for women to positions of senior responsibility (30%) and the presence of at least three women on each Management Committee. A holistic, proactive approach was adopted in order to make progress in this area and ensure that Thales is an open and welcoming company for all employees, regardless of individual differences.

To adapt its organisation to reflect this commitment to becoming a more diverse and inclusive company and structure itself to implement the related objective, the Group has created a dedicated governance system, comprising:

- a Steering Committee made up of the members of the Group's Executive Committee and chaired by the Chairman & Chief Executive Officer. The Steering Committee is responsible for defining the Group's Diversity and Inclusion strategy, approving the allocated resources and promoting and monitoring the fulfilment of any commitments made to this end;
- a Diversity and Inclusion Board made up of members who are representative of the Group's various functional departments. The role of this Board is primarily to raise collective awareness of diversity and inclusion issues by introducing initiatives to support the commitments undertaken at the corporate level;
- a central Diversity and Inclusion function created in January 2018.

The governance system also draws on existing HR networks, such as the professional development network, the recruitment network, and the Thales Learning Hub, to ensure information on initiatives taken within the organisation is cascaded down throughout the company.

5.4.2.1 Action to promote equality

This section includes the elements of the Group's policy on professional equality and equal pay as provided in Article L. 225-37-1 of the French Commercial Code.

The Group has long been committed to proactively making advances with regard to professional equality. In 2004 in France, Thales took decisive action in this area, in cooperation with the representative trade unions (action plans were negotiated that were prepared on the basis of comparative situation reports). In Europe, the IDEA agreement signed in 2009 brought in commitments in all areas of gender equality.

Proactive targets defined in 2016 are included in a dashboard that is monitored quarterly and shared with all GBUs and main countries.

The positive changes seen in recent years attest to the Group's commitment in this domain.

Tangible measures

• Awareness of stereotypes and unconscious bias:

Awareness-raising campaigns that began in 2017 continued, with 1,576 people targeted throughout the Group in 2018. The campaigns were conducted via a variety of methods (in person and by e-learning).

• Non-discrimination:

In addition to the efforts as part of annual salary reviews to ensure a fair distribution of individual increases and promotions, in 2018 audits of the YAL (Yearly Attestation Letters) included an additional analysis based on gender equality indicators (recruitment, promotion and salary). In 2018, 17 entities were audited on this issue of discrimination.

• Partnerships:

Thales also continued its partnership with Elles Bougent, a French non-profit organisation that encourages young women to take up careers in science and technology. At the end of 2018, almost 300 female employees at Thales were Elles Bougent mentors.

Outside France, Thales Italia forged a partnership in 2018 with Valore D, an Italian non-profit association whose goal is to promote the equal presence of women and men in companies as well as a culture of inclusiveness.

• Networks:

Thales encourages and supports the creation of networks that promote gender equality in the workplace. In 2018, 7 new networks joined the 11 existing networks. The Group held its first international convention of gender equality networks and created a global network called WITH (We In Thales), comprising all of the individual networks. The event attracted almost 1,400 Group employees, both women and men.

• Career:

Gender equality awareness sessions continued to be held in 2018 for more than 243 managers in France, bringing the number of managers attending such sessions since 2014 to more than 1,400.

Professional development programmes have been rolled out in Europe and North America to encourage the promotion of women, with 108 female employees having taken part in personal development sessions aimed at furthering their careers.

A company-wide international mentoring programme specifically for women was renewed in 2018. It involved 42 women from 14 countries. The programme complements other initiatives led by GBUs, countries or departments (United States, Canada, Germany, Space GBU, Finance Department, etc.) and illustrates the desire to promote mentoring as an important means of developing a more inclusive culture.

• Compensation and promotion:

Thales is vigilant in maintaining equality of treatment with respect to compensation. In France, a specific annual budget has been in place since 2006 to tackle any unjustified pay gaps between men and women, fund initiatives to promote women, and pay for awareness and training campaigns in support of women's professional development.

• Work/life balance:

Thales is committed to supporting working parents and improving employees' work/life balance. In France, Thales has been involved since 2010 in setting up inter-company crèches, which, at the end of 2018, were looking after 381 children of employees. In 2018 Spain continued the local initiatives it had developed to promote work-life balance and help with parenting. Specifically, it set up a digital platform to provide parent-employees with information or training on education-related topics, signed a partnership agreement with a *crèche* located near the company's premises and created a service offer for new parents.

Concrete results

- Women in the Group:**

At 31 December 2018, women made up 23.6% of the global workforce, 23.5% of the European workforce and 24.9% of employees in France. Within the Group, women are predominantly employed in long-term, highly skilled positions. In all, 96.2% of women employees worked under open-ended employment contracts, and 68.2% (as compared with 60.5% in 2013) held positions at a level equivalent to engineer, specialist or manager (levels of responsibility 7 to 12).

- Recruitment:**

Steps taken to promote recruitment resulted in Group companies hiring 1,442 women on open-ended contracts in 2018, i.e. 27.6% of the employees on open-ended contracts, versus 26.4% in 2017.

Measures have also been taken to hire women on short-term and work-study contracts to balance out the special emphasis on recruitment through open-ended contracts. Altogether, Thales hired 2,599 women in 2018. Taking all contracts into account (permanent, temporary and work-study), women accounted for 32% of new hires worldwide, 32.6% of new hires in Europe and 34.7% of new hires in France. Data relating to the recruitment of women reflect the firm commitment made by specific countries to hire more women, including Romania, where women made up 56.5% of new hires, the United States (35.7%) and Singapore (35.3%).

The Group wants to use these initiatives to build an inclusive and diversified company that meets the ambitious commitments it has set itself.

Performance related to diversity and inclusion (NFPS):

Percentage of women among new hires (permanent, temporary and work-study contracts): **32%**

Percentage of women in top positions (grades 10 to 12): **16.5%**

Percentage of Management Committees⁽¹⁾ with at least three female members: **49%**

5.4.2.2 Measures taken to promote cultural diversity, generational diversity and the employment and integration of people with disabilities

Promoting cultural diversity

As an international group, Thales respects and encourages a range of cultures in the workplace. In the context of an increasingly globalised employment market, cultural diversity has emerged as a source of wealth and contributes to the Group's strength. The Group pays particular attention to the recruitment of employees in the countries where it is present. In 2016, the Group set itself the goal of making its teams more internationally diverse.

In France, following on from the "Intergenerational Agreement", the agreement on the Development of Growth and Employment signed on 23 February 2017 continues to promote equal opportunities, in particular through the development of partnerships with partner organisations and schools and participation in recruitment forums on diversity organised by the public authorities.

In the Netherlands, efforts undertaken in 2017 to recruit more non-native employees continued in 2018 with the hiring of a further 20 non-Dutch employees.

In the United Kingdom, Thales became involved, in partnership with the youth charity Prince's Trust, in several "Get Into" programmes, aimed at helping young people aged between 16 and 30 who are out of the schooling system or the job market to gain skills and experience to enable them to access or return to work, especially within the Group.

Fostering generational diversity

In France, the Group's desire to create a new dynamic by adopting innovative measures to promote the employment of over-fifties is reflected in agreements that have been concluded since 2009. These are intended to prevent any risk of age discrimination, to develop the skills of over-fifties, to improve their working conditions and to take into consideration personal situations of unsuitable work or difficult work situations.

The Group is also committed to continuing to develop mentoring programmes which, for a given period, pair experienced employees with new hires or employees preparing to take on new responsibilities. These programmes form an integral part of the Group's skills transfer policy.

Disabled employment around the world

Regardless of the country in which they operate, the Group's companies make a point of complying with the legal requirements and all local regulations and recommendations designed to promote disabled employment.

Many Group companies based in various countries have also adopted a series of measures aimed at going beyond the legal requirements and promoting the employment of people with disabilities.

Disabled employment in France

Thales has had a Group task force on disabled employment in France, Mission Insertion, since 1992, the Director of which leads a network of disability contacts for each labour pool. Disability Employment Commissions have also been formed within each company and establishment with 250 or more employees.

As a result of the deployment of multi-year company agreements in France, the first of which was signed in 2004, the overall employment rate for people with disabilities in the Group has continued to rise, reaching 6.52% in 2017, compared with 5.1% in 2011. In 2018, this rate stabilised thanks to efforts to recruit and retain people with disabilities.

These results have been achieved thanks to the proactive policy pursued by Thales for over 20 years. It reinforces the action taken to promote and facilitate the retention in employment, professional development and integration of people with disabilities within the Group. This entire approach led to the signature at end-2017 of a new agreement providing in particular for the recruitment of 140 people with disabilities between 2018 and 2020, as well as 260 interns and 50 young people on work-study contracts.

One of the aims of this agreement is to implement the requirements of the AFNOR X 50-783 "Organismes Handi-accueillants" (disability-friendly organisations) standard on all sites by the end of 2020. At end-2018, 47 sites in France had undertaken initiatives in this area and 28 of them had confirmed their conformity.

Similarly, partnerships concluded with education authorities and universities were continued, in order to support young people with disabilities in their studies and professional integration.

In addition, in 2018, the Group continued to strengthen the partnerships forged in previous years with the GESAT network for sheltered and adapted employment to facilitate and enhance subcontracting to the disability-friendly sector.

⁽¹⁾ Management Committees of the Global Business Units, Business Lines and Key Countries.

5.4.3 A high-quality, safe and healthy work environment

One of the Group's key priorities is to provide a safe and healthy work environment for all employees, in compliance with applicable law, by monitoring procedures, preventing health and occupational risks and training employees. To this end, Thales is committed to being attentive to everyone's needs, making sure that employees have the trust and support of their managers and benefit from resources that allow them to have a healthy work-life balance.

Thales is committed to a deliberate, responsible approach to prevention and protection for the safety of the Group's employees. This commitment, included in its ethical principles, is reflected most notably in the policy to reduce health and safety impacts and risks in its activities worldwide, in its products and at the various levels of the organisation.

Within the Group, the Human Resources and Health, Safety and Environment Departments share the vast domain of quality of life at work and health and safety (H&S). They define the health and safety strategies, policies and processes and coordinate best practices for deployment in host countries. They also implement practical measures to ensure workplace risk prevention, health and safety.

5.4.3.1 Quality of life and wellbeing in the workplace

Improving quality of life in the workplace is part of a corporate project organised and structured around a shared, ongoing strategy created in conjunction with social partners which contributes to the definition of a safe and healthy working environment. A new Group agreement on quality of life and wellbeing at work within the Thales group in France was signed on 20 April 2018 with the unanimous backing of the trade unions.

5.4.3.1.1 High-quality social dialogue

In all areas of common interest, Thales promotes cooperation with its employees and their representatives, and provides them with high-quality information, in particular by supporting and encouraging employee relations. To allow everyone to develop together in a changing world, the Group encourages and considers ideas put forward by its employees regarding its development and its future. This cooperation helps develop a high-quality working environment.

Appropriate social dialogue bodies

• European Works Council

Created by an anticipation agreement, the European Works Council (EWC) comprises representatives from Thales's 13 main European countries.

In 2018, the European Works Council Select committee held two ordinary plenary meetings, two extraordinary plenary meetings and three meetings (including one in Rome). In addition, two information and discussion meetings took place as part of the work of the European Works Council within each of the Group's business domains to discuss the strategic and social perspectives of these businesses with staff representatives.

• Trade union coordination body at the corporate level in France

The Group has set up a body to coordinate representative trade unions at Group level in France. In addition to acting as the interface between the Group and the trade unions present in each of its companies, this body is responsible for addressing all negotiations with Group-wide impact and ensuring agreements are rolled out within the relevant companies.

• Thales Works Council in France

The Thales group Works Council was created in 2000 as the result of an agreement whose provisions were revisited in conjunction with all the trade unions in 2011. The 30-member Group Works Council is a body for information, deliberation and discussion aimed at developing dialogue between corporate management and employee representatives on the position and strategic focuses of the Group's main areas of business. It is also consulted annually on Thales group-level strategic focuses. The Group Works Council met three times in plenary sessions in 2018.

Collective bargaining

• Collective bargaining around the world

At the end of 2018, a total of 86.1% of Thales group employees worldwide were covered by collective agreements, including the European agreements signed by the Group. The companies in question can add locally negotiated agreements to this common framework. Nearly 50 new collective agreements were signed in France in 2018, showing the importance and dynamism of social dialogue.

In 2009, Thales also wanted to step up social dialogue at the European level and to this end signed its first European agreement with the European Metalworkers' Federation (EMF, now IndustriAll European Trade Union) on Improving professional Development through Effective Anticipation (IDEA). The IDEA⁽¹⁾ agreement affects more than 50,000 employees and defines very specific objectives for improving employees' professional development, through some 20 or so programmes.

The momentum created at European level by the IDEA agreement led to the signing, in April 2010, of a second European agreement with the EMF on the Transparent annual Activity discussion for mutual listening and developing professional Knowledge⁽²⁾ (TALK).

• Collective bargaining in France

In France, numerous Group agreements have been signed since 2006, forming a basis that is common to all employees, whichever company they work for.

The Group began a new round of negotiations in 2018 in the firm belief that collective bargaining aimed at improving working conditions for employees and sharing strategic information with employee representatives is a major contributor to its economic performance. In 2018, six new structural agreements were signed at Group level in connection with this social dialogue:

- the Group framework agreement on telecommuting, signed on 23 March 2018;
- the Group agreement on resources for the Thales group "intercentres" (trade union bodies that liaise with management), signed on 23 March 2018;
- the Group agreement on quality of life and wellbeing at work within the Thales group, signed on 20 April 2018;
- the Group agreement on elected employee representation and local representatives, signed on 13 December 2018;
- the Group agreement on workplace dialogue, trade union rights and career development of employee representatives, signed on 13 December 2018;
- amendment No. 13 on the social provisions applicable to employees of Thales group companies, signed on 13 December 2018, relating to the reduction of pension plan contributions applicable to Group employees about to retire.

(1) Improving professional development with more effective anticipation.

(2) Agreement on the Annual Activity Discussion.

In addition to carrying out compulsory annual negotiations, the Group's French subsidiaries also signed several agreements in 2018. The main topics of the negotiations were gender equality, the introduction of telecommuting, and harmonisation agreements related to the simplification of the company's legal structures in France as from 31 December 2017.

5.4.3.1.2 Tangible measures to improve quality of life and wellbeing in the workplace

Thales has implemented a number of ambitious, innovative agreements to promote quality of life in the workplace. For example, on 20 April 2018 it signed the Group's third agreement on quality of life and wellbeing in the workplace, which defines a general framework for Thales's health and safety policy and introduces a collective prevention process to identify, assess and deal with situations that may present occupational risks. The agreement is aimed at preventing the appearance of psychosocial risks (PSR) by paying particular attention to primary prevention, with measures to prevent their appearance being documented in a unique risk assessment document for each establishment.

To raise employee awareness of the importance of factoring quality of life at work into their daily work activities, every year Thales companies/establishments in France organise a "quality of life at work" week, during which employees can attend a large number of workshops and talks.

Thales has also introduced a participative process whereby employees are given the opportunity to express themselves through expression groups, the aim being to encourage and promote employee dialogue. The purpose of this direct, collective expression is to define the measures needed to improve quality of life at work, especially working patterns, working conditions and work quality.

Tangible measures have also been taken to make it easier for employees to reconcile professional and personal obligations, including the creation of inter-company crèches and concierge services. The company's approach also includes good use of online tools and the right to disconnect. Training and awareness campaigns are being implemented.

In 2018, 285 employees in management positions attended training on psychosocial risk prevention. Of these, 102 were trained using a new version of the training called "The manager: a key player in the quality of life at work", provided by the Thales Learning Hub, which incorporates elements of the Thales quality of life at work Agreement signed in 2018.

The Group framework agreement of 23 March 2018 on teleworking, which has since been supplemented by company agreements, is fully in line with this commitment to improve quality of life at work.

Lastly, a central "quality of life at work" committee supports all of these initiatives.

Solid welfare cover

Offering employees quality health and death/disability coverage helps to support them throughout their working lives. Some countries have brought in specific measures in this regard. In France, employees have had a harmonised collective status across all companies and identical welfare cover, whatever the legal entity concerned, since 2006.

This cover was adapted by the agreement of 12 December 2016 to take account of regulatory changes and then amended on 23 February 2017 when new solidarity and social cohesion measures were introduced. These included the supplemental daily parental attendance allowance, the allocation of rest days and the widespread application of employer contributions for eligible forms of employee leave.

Working time

For the Group, the organisation of working time should allow a balance between work and personal life, with each country adapting working time according to the applicable legislation, regulations and agreements.

A total of 93.1% of Group employees are full-time; part-time contracts generally reflect a choice by the employee.

The set of measures implemented by the Group to improve quality of life and wellbeing at work help to maintain a relatively low rate of absenteeism.

Performance related to workplace health and safety (NFPS):

Overall absenteeism rate at the company: **2.4%**

In France, the total rate of absenteeism calculated in accordance with the social report was 3.37% in 2018. This rate has remained relatively unchanged for the last few years (3.25% in 2017, 3.27% in 2016). The absenteeism rate, excluding parental leave, also remained unchanged at 2.69%. The proportion of absenteeism relating to accidents at work, commuting accidents and occupational illnesses was similar to the proportion recorded in the previous year and remained consistently low.

5.4.3.2 Preventing workplace health and safety risks

5.4.3.2.1 Policy and corporate governance

Risk policy and analysis

Since March 2016, Thales has reaffirmed its commitments to risk prevention and employee protection through one of the three fundamental priorities of its latest Health, Safety and Environment policy. These commitments have featured among the Group's ethical principles for over 15 years.

This deliberate, responsible approach to preventing risks and protecting employee health and safety is coordinated by the Group's Health, Safety and Environment (HSE) Department and implemented in all host countries and GBUs through a series of workplace health and safety measures covering culture, risk prevention and skills reinforcement.

Independently of ensuring compliance with applicable regulations and anticipating future regulatory changes, this deliberate policy has two key areas of focus in terms of health and safety:

- provide a safe and healthy working environment for its employees at its own premises and at external sites;
- design, purchase, produce and provide solutions, products and services which meet health, safety and environmental requirements.

As part of the implementation of this policy, Thales produces risk analyses at all its sites and updates them on a regular basis according to its business activities, scientific and technical developments and emerging challenges. These analyses are produced to:

- check the conformity of business activities and products used or placed on the market;
- ensure that employees are not exposed to specific risks but if so, that they know how to control them;
- monitor that business activities are not likely to affect the environment through technological accidents;
- analyse and anticipate the impact of new regulations.

Risk assessments and analyses of legal requirements and compliance obligations are formally documented by HSE experts at all Group sites, as well as at external sites.

A dedicated HSE structure

In order to keep improving its performance in terms of health, safety and risk prevention, Thales has created a global network of HSE managers divided into three categories: "sites/operations", "external sites" and "product engineering". The network covers all countries, GBUs and Thales entities and deploys preventive measures at work sites (employee exposure and protection, implementation of appropriate avoidance and protection measures, etc.), for operations (industrial processes, substances, external sites, etc.), and for products placed on the market (product design, substances used).

The network is coordinated by cross-functional global HSE Steering Committees which roll out prevention standards that prioritise general prevention principles (elimination/substitution of hazards, appropriate instructions for workers, and control methods) and best practice.

The Committees meet three times a year while the community of members of the global HSE network meets once a year to set, consolidate and share the Group's HSE policy. The other departments are also involved in these issues.

The HSE Department was also invited to participate in the company's Doctors Coordination Committee in France in 2018.

5.4.3.2.2 Tangible measures

Maintaining skills and risk awareness

Knowledge of the risks and how to prevent them is crucial to maintaining the skills of managers and employees. These are the people who also need to be aware of the risks and how to manage them and the appropriate behaviours to be adopted. Thales's HR and HSE functions run and maintain training courses in workplace safety and security throughout the Group. These are based on specific needs identified at individual premises or job sites and offered at the local level, or on programmes defined at the corporate level and rolled out across all entities.

To underpin knowledge and skills relating to health and safety, dedicated training modules are delivered throughout the Group by in-house trainers, HSE managers or specialist independent bodies. E-learning modules are also available to all employees through the Thales Learning Hub. These training courses are aimed not only at those responsible for health, safety and the environment but also the relevant job families (purchasing, design, operations, etc.) and all Group employees.

The courses cover general workplace safety training (induction and on-the-job training, fire safety, first aid, etc.), specific training in risks encountered (electrical, chemical, radiation, ergonomic, psychosocial risks, etc.), tools training (risk analysis, regulatory monitoring, standards, audit and inspection techniques), and training in management and best safety practices. As an example, in 2018 more than 85,000 safety training hours were provided in France and the United Kingdom (not including training lasting less than a day).

Programmes on awareness and communication, defined and disseminated locally by HSE managers based on a site's specific needs or at the country or corporate level, are another way of making sure all employees are aware of potential risks and how to deal with them. For instance, the Group publishes a quarterly HSE newsletter and conducts an annual awareness campaign focusing either on a specific or more general risk. (Since 2015, information has been provided about best practices in the presence of risks related to tripping, material handling or driving.)

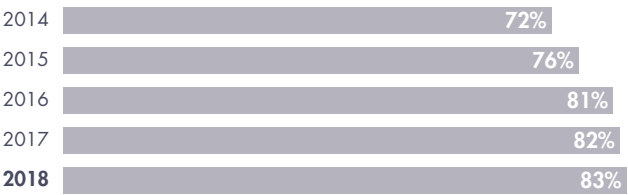
Lastly, a dedicated HSE portal is available to all employees on the Group intranet.

Operational control

The Group's operational departments, with the support of HSE specialists, ensure that facilities meet safety standards at all times, that collective and individual means of protection are available, that employees and external partners are familiar with instructions and procedures, which includes organising emergency drills, and that safety aspects are factored into local management. For example, the LEAN culture continues to be rolled out throughout the Group, with workstation cleanliness and safety a central feature, while HSE considerations are incorporated into operational practices through team presentations, workshop visits and improvement initiatives. At the same time, the Group's HSE experts ensure that HSE standards are applied consistently at premises and work sites and that teams get the support they need to manage workplace health and safety at the local level, based on the OHSAS 18001 management standard (currently transitioning to ISO 45001). As at 31 December 2018, the Group held 103 OHSAS 18001/ISO 45001 certificates representing 83% of the global workforce.

Performance related to workplace health and safety (NFPS):
Number of employees working at site certified OHSAS 18001/ISO 45001 in 2018: 83%

➤ CHANGE IN THE NUMBER OF EMPLOYEES WORKING AT OHSAS 18001 SITES



Employee performance reviews and continuous improvement

Certified sites carry out internal audits so they can share best practices on an ongoing basis and improve their HSE practices. They also arrange for monitoring audits by external bodies to ensure independent oversight of their HSE management at the sites. The Group has strengthened these processes by setting up a system to assess HSE maturity. The system has been in place in all entities since the end of 2017 to strengthen the Group's safety culture and the commitment of managers and employees and help improve the performance of the Group and its partners. The Group Health, Safety and Environment team relies on a team of 23 qualified auditors to perform HSE maturity assessments. So far, 23% of the highest-risk sites around the world have been audited.

Meanwhile, the performance of Group employees in terms of the number of workplace accidents, the achievement of accident reduction, accident severity and technological risk prevention targets has been monitored on a quarterly basis since 2018 by the Country Management Committees and the Group Operations and Operational Performance Committee.

➤ CHANGE IN FREQUENCY RATE (WORKING DAYS LOST DUE TO ACCIDENTS AT WORK)

2014	2.34
2015	2.33
2016	2.14
2017	2.19
2018	2.01

With regard to accidents at work, the overall frequency rate stood at 2.01 for 2018, a net improvement and relative decrease since 2012. The rates differ substantially for each country, depending in particular on the activities taking place there.

Performance related to workplace health and safety (NFPS):

Frequency rate of accidents at work worldwide: **2.01** in 2018

➤ CHANGE IN SEVERITY RATE

2014	0.077
2015	0.062
2016	0.049
2017	0.055
2018	0.048

The severity rate of accidents at work was 0.048 in 2018, which was a net improvement (corresponding to 5,245 days lost in 2018). Added to this figure is an equivalent number of days lost due to commuting accidents (4,415 days lost). The rates differ substantially for each country, depending in particular on the activities taking place there.

It should be noted that the inherent difficulty of defining the concept of occupational illness in the countries means it has not been possible to consolidate this information across all countries in which the Group is established. The information on occupational illness is consequently shown only for France. In France, 354 working days were lost due to occupational illness in 2018.

Performance is managed by monitoring recently renewed targets set by the Group's HSE Department for all entities:

Safety and security goals	2023 target
Maturity Assessment of the operational maturity of industrial sites	100%
Workplace accidents Reduction in lost-time accidents (FR ^(a) for Thales employees)	-30%

(a) Frequency rate of accidents at work with subsequent work stoppage.

5.4.4 Other social indicators

Breakdown of employees worldwide

The Group's international footprint is one of the pillars of Thales's strategy, in line with its long-term development model. While the diversity of its geographical footprint exemplifies the Group's international character, Europe remains its principal employment zone, representing 53,278 active employees, or 80.3% of the total workforce. France, the Netherlands, the Middle East, the United States, Romania and Egypt experienced the strongest growth in terms of headcount.

(headcount at 31 December)		2017	2018
Major countries for the Group	Germany	3,126	3,157
	Australia	3,605	3,670
	Canada	1,581	1,633
	United States	3,010	3,108
	Netherlands	1,691	1,813
	United Kingdom	6,364	6,282
Rest of Europe	Austria	297	288
	Belgium	873	888
	Denmark	108	151
	Spain	1,062	1,055
	Greece	40	41
	Italy	2,649	2,635
	Norway	215	220
	Poland	289	345
	Portugal	343	387
	Romania	271	365
	Switzerland	288	288
	Other ^(a)	22	43
Emerging markets	Algeria	30	34
	South Africa	120	121
	Saudi Arabia	551	459
	Brazil	191	208
	Chile	50	61
	China-Hong Kong	606	631
	South Korea	28	30
	Egypt ^{(b)(c)}	149	236
	India	385	433
	Indonesia	20	22
	Israel	86	85
	Japan	44	44
	Malaysia	49	42
	Morocco	44	53
	Mexico	286	280
	Middle East (excluding Saudi Arabia) ^{(c)(d)}	738	878
	Russia	21	23
	Singapore	709	719
	Taiwan	32	37
	Thailand	21	30
	Turkey	115	133
	Other ^(e)	187	104
France	France ^(e)	34,822	35,320
WORLD		65,118	66,352

(a) Other countries with fewer than 20 employees and permanent establishments: Argentina, Azerbaijan, Bolivia, Botswana, Bulgaria, Colombia, Côte d'Ivoire, Czech Republic, Finland, Ireland, Kazakhstan, Kenya, Latvia, Nigeria, New Zealand, Panama, Peru, Philippines, Santo Domingo, Sweden, Senegal, Tunisia, Turkmenistan, Uzbekistan, Venezuela, Vietnam.

(b) Thales's workforce in Egypt was included in the Middle East scope until 2016.

(c) Thales's workforce in these countries also includes the employees of permanent establishments belonging to Thales Communications & Security, one in Qatar and one in Egypt.

(d) The Middle East includes: UAE, Lebanon, Oman, Pakistan, Qatar and Bahrain.

(e) At 31 December 2018, the total workforce registered in France was 38,634.

Scope of consolidation

The Group's scope of consolidation changed slightly in 2018 due to acquisitions and disposals.

	Operations	Workforce included in or removed from the Group's scope of consolidation
Acquisitions	France: Acquisition of Arelis Broadcast's military radio business	Inclusion of 28 employees
	United States: Acquisition of SQLstream's edge analytics and data analytics business	Inclusion of 11 employees
	United States: Acquisition of Psibernetix	Inclusion of 2 employees
	Denmark: Acquisition of Cubris	Inclusion of 16 employees
Disposals	Australia: Sale of Thales Australia Limited's test and calibration services business	Removal of 22 employees from the Group's scope of consolidation

➤ OTHER INDICATORS

Indicator	2018 data	Scope
GLOBAL WORKFORCE ^(a) AT 31 DECEMBER 2018	66,352	100%
Workforce by country		
Workforce France	35,320	100%
Workforce Europe	53,278	100%
Workforce excluding France	31,032	100%
Workforce by gender		
% of women	23.6%	98.7%
% of men	76.4%	98.7%
% of women in France	24.9%	100%
Workforce by type of contract		
% of permanent contracts	97.4%	98.6%
% of full-time contracts	93.1%	98.6%
Workforce by age group		
< 30	11.8%	98.7%
30-39	22.8%	98.7%
40-50	29.8%	98.7%
> 50	35.6%	98.7%
Workforce by level of responsibility (LR)		
LR 1-6	14,312	98.5%
LR 7-12	51,060	98.5%
Departures by type		
Number of departures	5,280	98.6%
% of resignations	46%	98.6%
% of redundancies	14.8%	98.6%
% of retirements	24.9%	98.6%
% of expiries of short-term contracts	9.8%	98.6%
% of other departures (including death)	4.6%	98.6%
Recruitment		
Total number of new hires	8,133	98.6%
Of which open-ended contracts	5,220	98.6%
Of which short-term contracts	1,255	98.6%
Of which work-study contracts	1,658	98.6%
% of women	32%	98.6%
Training		
% of employees benefiting from a PDD ^(b)	88.3%	97.5%
% of employees trained	76.5%	97.9%
% of women trained	80.4%	97.9%
Average number of hours of training per employee	18.7	97.8%
Total number of hours of training	1,214,970	97.8%
% of employees covered by a collective agreement	86.1%	97.9%

(a) Workforce shown corresponds to active workforce.

(b) PDD: professional development discussion.

Indicator	2018 data	Scope
Health and safety		
Overall absenteeism rate – World	2.4%	93.9%
Total absenteeism rate – France (social report) excluding maternity/paternity leave	2.69%	100%
Total absenteeism rate – France (social report)	3.37%	100%
Severity rate of accidents at work – World	0.048	97.7%
Severity rate of accidents at work – France	0.072	97.0%
Frequency rate of accidents at work – World	2.01	97.7%
Frequency rate of accidents at work – France	2.89	97.0%
Number of days lost due to occupational illness in France	354	97.0%
Other		
Payroll – World	€6.459bn	100% financial consolidation
Employment rate of people with disabilities in France	6.52%	
Number of jobs created by GÉRIS in 2018	247	

Note on methodology

Social reporting method

The employee-related section of the Registration Document provides detailed information on social data, social policies, and practices and action that fall within the Group's corporate social responsibility, and their impacts. It reflects Thales's international dimension. The information it contains sets out the position of the Thales group at 31 December 2018. The social report, extracted from the employee-related section of the Registration Document, is available for download from the Group's website at [www.thalesgroup.com/en/Corporate Responsibility](http://www.thalesgroup.com/en/Corporate%20Responsibility) > "Key corporate responsibility documents".

Organisation and methodology

To ensure that the data collected are accurate and reliable, a dedicated organisational structure and suitable methodology have been implemented. Thus, continuing the process initiated in 2011 with the roll-out of the e-Social Responsibility Reporting computerised reporting tool, the information contained in the social report is approved by the country directors of Human Resources. These directors have to complete a qualitative and quantitative questionnaire covering indicators that, while satisfying current legislative requirements, are also based on the indicators proposed by the Global Reporting Initiative⁽¹⁾ or negotiated with social partners, particularly at European level. The data reported by each country are consolidated by the Group HR Department, which checks for consistency before drafting the report.

Two key performance indicators for 2018 were calculated centrally. The first indicator regarding the number of non-French employees in the French teams was provided by the Head of Expertise and Support. The Group's HR Director in charge of data reporting fed back on the percentage of Management Committees with at least three female members based on information provided directly by representatives in the countries in question or the GBU.

Scope

The definition of the companies taken into account for the purposes of preparing the social report and the Registration Document was not modified this year and is in accordance with IFRS 10 and 11 on financial consolidation. Workforce under Group management as at 31 December 2018 thus includes only the workforce of companies controlled by Thales within the meaning of Article L. 233-3 of the French Commercial Code, as well as companies meeting those criteria but below the threshold for financial consolidation.

The Group's scope of consolidation changed slightly in 2018 due to acquisitions and disposals⁽²⁾.

Moreover, the scope of the social report is specified for each figure: for greater transparency, the percentage of employees covered is stated for all responses. For each item of quantitative data, the table of scope of verification of quantitative data provides the percentage of the workforce covered.

Details

- Workforce under Group management as included in the Registration Document comprises all employees in each country, regardless of their contract type (open-ended, short-term or full-or part-time). It does not take into account apprenticeships or vocational training contracts (however, the number of contracts entered into is given in the recruitment section), employees on unpaid leave, employees on sick leave (of over three months), employees on parental leave, or employees on unworked notice periods as at 31 December of the year in question.
- The total number of new hires includes the work-study contracts concluded in 2018, but does not include the conversion of short-term employment contracts or apprenticeship contracts into open-ended employment contracts during the year. Nor does it include the conclusion of internship contracts, International Business Volunteer

(1) The Global Reporting Initiative (GRI) is a non-profit organisation that is developing a common working framework for drafting sustainability reports. Founded in 1997, the GRI published an initial version of its guidelines in 1999. Companies' adherence to this text is completely voluntary.

(2) In France, acquisition of Arelis Broadcast's military radio business (28 employees); in the USA, acquisition of SQLstream's edge analytics and data analytics businesses (11 employees) and Psibernetix (2 employees); in Denmark, acquisition of Cubris (16 employees); and in Australia, sale of Thales Australia Limited's test and calibration services businesses (22 employees, removed from the Group's scope of consolidation).

(VIE) agreements or CIFRE Research Training Fellowships or the transition from active to inactive employee status or vice versa.

- The total number of departures includes resignations, redundancies for economic reasons, other redundancies (data relating to mutually agreed contract terminations are recorded in this category), retirements, deaths and other types of termination, as well as expiries of short-term employment contracts.
- For the calculation of the percentage of Management Committees with at least three female members, the figure includes Corporate Management Committees, the GBUs, major countries, the DEOI (Europe & International Operations Department) and DGDI (International Development Department), and the Business Lines.
- For the key performance indicator related to the percentage of women in new hires, the figure includes women hired on open-ended, short-term and work-study contracts.
- The percentage of women in the highest positions of responsibility measures the percentage of women in grade 10 to 12 positions relative to the total number of employees in positions at the same level.
- Data relating to absenteeism and rates of frequency and severity of accidents at work are calculated with reference to a number of days theoretically worked within countries, and based on active headcount and paid inactive employees (employees with a long-term illness do not therefore fall within the scope of calculation of this indicator). These figures have been obtained by reconciling data entered in the HR and Environment Departments' reporting tools.
- The overall absenteeism rate corresponds to the percentage of days lost for any reason, work-related or otherwise, relative to the number of days theoretically worked in the various countries. Authorised leave such as annual leave, sabbatical leave, parental leave and personal leave is excluded, as is leave for which the employee is no longer paid by Thales.
- The total rate of absenteeism in France, calculated in accordance with the social report, corresponds to the percentage of days lost for any reason, work-related or otherwise, relative to the number of days theoretically worked. It includes authorised leave, parental leave and leave for family events. By contrast, leave for which the employee is no longer paid by Thales is excluded.
- The frequency rate is the number of lost-time accidents at work over the course of the year, multiplied by 1,000,000 and divided by the number of hours worked during the year. The hours per site are measured by HR or HSE departments. These can correspond to theoretical or actual hours worked depending on the organisation and on local legislation.
- The severity rate is the number of days lost due to accidents at work, multiplied by 1,000 and divided by the number of hours worked during the year. The hours per site are measured by HR or HSE departments. These can correspond to theoretical or actual hours worked depending on the organisation and on local legislation.
- The employment rate for workers with disabilities corresponds to the overall number of beneficiary units (disabled workers and use of subcontracting from the disability-friendly sector).

5.5 A COMMITTED APPROACH TO MEET ENVIRONMENTAL CHALLENGES

5.5.1 General policy on environmental issues

5.5.1.1 Long-standing commitments renewed and strengthened

Thales is committed to a deliberate, responsible approach to protection of the environment. This commitment, written into the Code of Ethics, has been a driver for the Group for over 15 years and is reflected in a policy to reduce environmental impacts and risks in its various activities worldwide, in its products and at all levels of the organisation. In addition to ensuring compliance with applicable regulations and anticipating future regulatory changes, the policy has four key areas of focus:

- preventing impacts on people and the environment from the Group's activities:
 - by reducing and controlling environmental risks and impacts on health,
 - by consuming fewer natural and energy resources,
 - by respecting biodiversity and cultural heritage;
- factoring the environment into product policies and services:
 - by limiting their environmental footprint whenever possible,
 - by developing solutions that are beneficial for the environment,
 - by using the environment as a driver for innovation;
- significantly reducing our own carbon footprint, as well as that of our clients and civil society:
 - by reducing emissions from our own operations,
 - by promoting low-carbon solutions;
- fostering a spirit of innovation with regard to the environment:
 - by sharing expertise,
 - by communicating transparently,
 - by encouraging the involvement of employees, suppliers and other stakeholders.

To reinforce its commitment, the Group has set performance targets for all of its entities since 2007. Five years ago, these were extended to purchasers, and to staff involved in product policy and in engineering, industry and projects. Current targets have been set for the period 2015-2018 to meet the Group's environmental challenges. The Group is also organised to manage the anticipated gradual replacement of hazardous substances banned for use which could result in obsolescence of our products.

Performance related to environmental impacts in connection with the Group's activities and anticipation of environmental standards in product design (NFPS):

> GOALS FOR 2016-2018

	Target	2016-2018 results	2017	2018
Natural resources				
Energy consumption (thousand toe)	-3%	+0.5%	155.6	154.3
Energy intensity (toe/€k)		-11.2%	10.2	9.98
CO₂ emissions				
Energy and substances (scopes 1 and 2) (thousand tonnes of CO ₂ /€m)	-5%	-16%	14.54	13.79
Non-hazardous waste				
Quantity per person (kg/person)	-5%	+3.5%	179.5	166.8
Recycling rates (%)	> 60%	+2.7%	56	58

> 2018 GOALS

Eco-design

Industrial processes affected by the substitution of chromates	Adherence to implementation schedule	Compliant
Assessment of the reduction in products' environmental impact	One representative eco-product from each activity segment	Compliant
Development of tools for the eco-design awareness programme	Supporting materials available	Compliant

Detailed values are given in the table in section 5.5.5, "Other environmental indicators".

Lastly, in keeping with past initiatives, particularly those carried out during the COP21 events in 2015, Thales reaffirmed its commitments and determination to combat climate change by signing the French Business Climate Pledge⁽¹⁾ on 11 December 2017.

These commitments were followed in 2018 by the establishment of several working groups with the ultimate aim of improving knowledge, reducing the indirect environmental impact of the Group's activities

(Scopes 1, 2 and 3) and setting direct and indirect CO₂ emission reduction targets in line with the 2°C trajectory of the Paris Agreement that will be published in 2019.

These targets are fully in line with the multi-year targets set for the upcoming period from 2019 to 2023 that have been finalised in agreement with internal stakeholders and have their own specific action plans.

> GOALS FOR 2019-2023

	2019 target ^(a)
Natural resources	
Energy intensity (CO ₂ eq/hour worked)	-3%
2023 target	
Eco-design	
New developments incorporating eco-design	100%
Percentage of Product Line Architects and Product Line Managers trained in or made aware of eco-design	75%

(a) Transition year; the targets for combating and adapting to climate change will be updated in 2019 for the period 2020-2025.

(1) French Business Climate Pledge: on the eve of the One Planet Summit on 12 December 2017, 91 French companies of all sizes and from all sectors announced the signature of a shared commitment to climate. Each of these companies put forward its actions as a committed player in the fight against global warming.

5.5.1.2 Commitment from employees

5.5.1.2.1 Global organisation

Aiming to consistently improve its environmental performance and prevent risks, the Group has set up an organisation that reflects its challenges. This Group Health Safety Environment (HSE) Department is responsible for setting out strategy, policy, processes, methods and associated standards, and for supervising and monitoring their implementation across the Group as a whole, with global facilitation of:

- a network of "Site/Operations Environment" managers at country and entity level, responsible for the environmental aspects of sites (buildings, infrastructure, energy, etc.) and the operations performed (industrial processes, substances, waste, external sites, etc.), bolstered by a real estate management network;
- a dedicated network of "Products and Services Environment" managers in the Group Business Units and Business Lines in charge of integrating environmental aspects in advance of and during offer and product development phases, supported by contacts in the cross-functional services (engineering, industry, purchasing, services, offers, projects, etc.). Its purpose is also to facilitate action to anticipate and research appropriate alternative solutions to hazardous substances that are not recommended or are prohibited.

Operational management relies on these networks, which are coordinated within dedicated job families, to increase momentum and boost skills, determine recruitment and training needs, anticipate future developments and challenges and share them within the same community.

5.5.1.2.2 Employee training and information

E-learning modules are available to educate Group employees on the basic aspects of environmental risk control, general themes such as eco-responsibility or specific issues such as managing chemicals, labelling hazardous chemicals or issues related to climate change. To further support environmental knowledge within the Group, the various job families (environment, purchasing, design, sales, etc.) are offered additional training modules through the Thales Learning Hub.

The Group's HSE Department also participates in conferences organised by other business groups to present its HSE strategy, discuss HSE challenges and describe individual roles when it comes to HSE: DGD operations, LEAN, manufacturing, real estate, Thales Learning Hub trainers, auditors, purchasing departments, customers, business leader seminars, etc.

Thales offers a variety of communication tools and forums for all employees, including an intranet, displays, events, newsletters and surveys.

5.5.1.2.3 Relations with stakeholders

Thales is committed to communicating in a totally transparent way with local authorities, as well as with its local neighbours and civil society, sharing its challenges with them. Procedures are also in place to receive, deal with and communicate reports and requests swiftly. It is also possible to send questions to the Group's HSE Department using a dedicated e-mail address.

To meet the requirements of civil society, investors, rating agencies and clients, Thales provides its environmental data on its website and also participates in reporting for the Carbon Disclosure Project⁽¹⁾, the Dow Jones Sustainability Index⁽²⁾ and the MSCI.

In the course of its partnerships, particularly with schools, Thales promotes preservation of the environment through programmes on climate change and natural resources, or by working with universities.

5.5.2 A moderate and controlled environmental footprint of business activities

5.5.2.1 Continuous improvement and prevention process

Thales has integrated the control of environmental impacts and risks in its Group management system, which is available to all employees and in all entities worldwide.

The Environmental Management System has been implemented at all sites as part of a dedicated process for ensuring the control and limitation of environmental risks and impacts of operational activities (buildings, industrial base, equipment and sites), the supply chain (purchases, supplier audits) and products delivered (product policy, design, bids, projects and services).

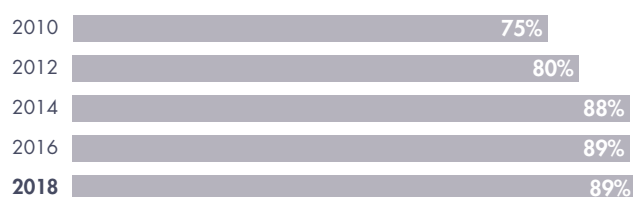
Integrated into the different processes governing the Group's activities, it defines good practices and methodological guides, as well as specifying the rules to be followed at all levels of the organisation. It also defines the risk management and alert procedures in the event of an accident.

Performance related to environmental impacts in connection with the Group's activities and anticipation of environmental standards in product design (NFPS):

Employees working at
ISO 14001 sites in 2018: **89%**

(1) Carbon Disclosure Project: an international non-profit organisation that enables companies, cities, states and regions to measure and manage their environmental impacts, and investors and policy-makers to make more informed decisions by explaining to them the consequences of climate change.

(2) DJSI: the Dow Jones Sustainability Index lists the top-performing companies each year according to economic, environmental and social criteria.

► EMPLOYEES WORKING AT ISO 14001 SITES

At the end of 2018, 118 sites across the entire Group were ISO 14001-certified, representing 89% of the workforce. The standard includes management of a product's environmental impact. Audit planning takes place on an annual basis. Audits are conducted by the internal audit teams (audit policy, maturity assessment) as well as by external auditors for ISO 14001 certification or prevention visits.

In addition, to provide support to the sites, the eHSE risk management software suite was adapted to changes in standards, particularly in relation to taking into account challenges of stakeholder demands, risks and opportunities within environmental analysis and the effectiveness of actions and associated resources.

5.5.2.2 Environmental risk mapping

The risk of environmental impact related to the Group's activities and that product design may not keep up with environmental standards (see section 5.2, Risks Selected for the Non-Financial Performance Statement) is among the risk factors that may impact the Group's financial position. For many years, Thales has conducted regular analyses and updates of environmental risks to keep pace with changes in its business activities, scientific and technical developments and emerging challenges and opportunities.

This analysis, incorporated into a risk mapping, is intended to:

- ensure that activities and products are compliant;
- ensure that employees and local residents are not exposed to health and environmental risks;
- check that activities do not present a threat to the environment;
- analyse and anticipate the impact of new regulations, including on product design.

Risk mapping consolidates an overview of areas for improvement, which are addressed via action plans either at Group level or locally. Since 2007, the Group's Risk Assessment Committee has overseen an annual evaluation of the risk management system by each of the Group's operational entities, leading if necessary to the development of an improvement plan in collaboration with Group experts.

To enhance its analysis of the risk of damage to Group sites, Thales pursues an active prevention-engineering policy with the support of external partners. The aim is to identify accidental strategic risks that could trigger a major loss and severely disrupt the supply chain, such as fire, industrial incidents, natural disasters, environmental damage, machinery breakdown and water damage. The prevention visits conducted on 160 sites lead to recommendations aimed at reducing the probability of incidents and preventing their consequences.

The risks of material damage related to natural disasters and water stress (risks associated with climate change) are also analysed (see section 5.5.3.4).

Management of environmental risks also encompasses disposals or acquisitions of assets, in respect of which it is important to limit the type, value and duration of any guarantees provided or risks acquired.

Materiality of impacts	Industrial type activities	Tertiary type activities	Comments
Greenhouse gas emissions (Scopes 1, 2 and 3)	Moderate	Moderate	
Soil pollution	Moderate	Insignificant	
Energy consumption	Low	Insignificant	
Production of non-hazardous waste	Low	Insignificant	
Production of hazardous waste	Moderate	Insignificant	
Water consumption	Low	Insignificant	
Emissions in water	Low	None	Tertiary sites discharge their sanitary waste water into local authority networks like any other municipal resident. Industrial sites collect and process their waste water before discharge.
Atmospheric emissions	Insignificant	None	

5.5.2.3 Limited emissions

5.5.2.3.1 Industrial wastewater discharge

Thales's activities generate little in the way of industrial wastewater: 91% of wastewater is discharged from six sites, and 68% from the Mulwala, Australia site alone. Consolidated wastewater discharges have fallen by 12% compared with 2012, as a result of ongoing plant optimisation and modernisation measures and wastewater recycling and reuse.

5.5.2.3.2 Industrial atmospheric discharges

In general, Thales's activities do not generate atmospheric discharges, except for a few specific industrial sites or those linked to site operation (in particular heating).

A few sites discharge industrial atmospheric emissions which are channelled and treated where necessary (with filters, scrubbers, etc.) and regularly checked. This primarily relates to solvents.

The quantities of solvents used are limited. A total of 69 (out of 151) entities purchase solvents, with six of those entities accounting for 89% of purchases. The Mulwala site alone accounts for 75% of purchases and 76% of discharges resulting from the manufacture of propellants requiring a large quantity of solvents. It should be noted that several sites have stopped using solvents or replaced them with detergents.

5.5.2.3.3 Combating noise and odour pollution

While Thales's activities generate very little noise or odour pollution, measures are still put in place to limit them.

Cooling systems are the most common sources of noise pollution, and precautions are taken to limit noise levels associated with this equipment. Sound levels are checked periodically. The few sites where noise is a particular issue are equipped with acoustic attenuation systems, or only conduct noise-generating activities within specific time periods. The increasing use of computer simulations for pyrotechnic testing, for example, also helps to reduce noise.

Thales's activities do not generally generate odour, except for one entity where systems to capture atmospheric emissions have been installed and are regularly checked.

5.5.2.4 Rational resource management

5.5.2.4.1 Preserving water

Water is a vital resource to be protected. Accordingly, since 2000, Thales has been engaged in a far-reaching programme to reduce its consumption by, among other things, dealing with leaks, centralising the management of its networks, replacing water-intensive equipment, optimising industrial processes and recycling water for reuse in industrial processes.

	2012-2015	2015-2018
Water consumption (m ³)	-11%	-5%

The Group's overall consumption is down 13% since 2012, confirming the collective efforts made by all sites (including the Mulwala site which alone accounts for 38% of the Group's water consumption). These achievements are due to increased employee awareness and to making best and widespread use of best practices.

5.5.2.4.2 Moderating the consumption of raw materials

Thales designs, develops and supplies equipment, systems and services in aeronautics, space, transport, security and defence. The raw materials consumed by Thales are natural resources and various materials used in the manufacture of products by Thales and its subcontractors.

The search for new technologies and the design of new equipment involve restricting the use of materials to cut down on size and mass and to facilitate dismantling (see section 5.5.4), as well as replacing the substances that are most toxic for health and the environment. These requirements are conveyed to suppliers of the equipment and components that Thales assembles at its sites. The manufacturing processes are also optimised to limit loss of materials and amounts of discharge and waste.

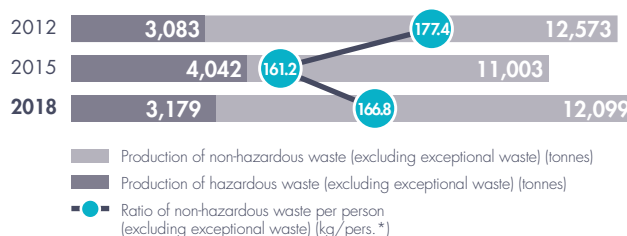
The process of additive manufacturing (also called 3D printing), for example, has been used by Thales to manufacture parts for the space sector since 2017. Boasting a low consumption of raw materials, this new technology also makes it easier to repair parts and optimises service offerings.

Thales has also reduced the use of materials such as wood, cardboard and plastic by limiting and reusing packaging either for procurement on Thales sites or for the transfer of equipment from one site to another, and fully integrates the eco-design concept into the development of its new products to reduce the environmental footprint of Thales and the customers who use its products in all areas where it is technically and economically viable.

5.5.2.4.3 Reducing and managing waste production

Since 2012, Thales's "responsible waste management commitments" have sought to reduce the quantity of waste the company produces and to limit the amount of waste sent to landfill and optimise recycling. These commitments led to a 25% decrease in total waste production per revenues between 2012 and 2018, and a 20% reduction in non-hazardous waste production between 2017 and 2018.

► CHANGE IN WASTE PRODUCTION



* Based on the average annual number of employees on site, including permanent employees, temporary employees, trainees and service providers permanently on site, and excluding employees on permanent assignment or based at external sites.

As a result of measures taken since 2007, 84% of all waste (excluding exceptional waste) was recovered and 59% was recycled in 2018.

To achieve this, various measures related to selective waste sorting, the search for recycling channels or optimum treatment channels and campaigns to change habits and behaviour (printing policy and reusing cardboard and other packaging, for example) have been introduced. These measures are aimed at reducing waste production and improving waste treatment.

For instance, the amount of waste paper and packaging fell by 27% and 7.3% respectively compared to 2012, with the Group increasingly adopting a digitisation policy.

Certain Group sites reuse packaging either for procurement on Thales sites or to transfer equipment from one site to another.

Hazardous waste has also been a specific target. Dedicated areas for collection and storage have helped to manage this type of waste prior to disposal. The quantity of such waste has decreased consistently since 2015.

5.5.2.4.4 Food waste

Food services companies manage the corporate restaurants at the majority of Thales sites. It is therefore their responsibility to communicate about eating habits and food waste management and they are strongly encouraged to reduce food waste.

5.5.2.5 Protecting the impact on the biosphere and controlling technological risks

5.5.2.5.1 Land use and pollution prevention

Since 1998, the Group has been involved in a programme to assess the risks of pollution and soil erosion. The programme is updated as the current situation warrants. Few sites have shown significant signs of contamination, and where contamination has been identified, it is usually due to earlier industrial activities (some of which are independent of Thales and related to past acquisitions).

When available techniques allow, steps are taken to remove pollution. The impact on the available environmental resources is then reduced to a minimum by preferring *in situ* treatment to transferring pollution to another site.

The water table is periodically monitored at industrial sites and sites located in industrial areas. The cases in question are monitored in a coordinated manner by the Group's HSE Department in conjunction with the Legal Department.

The Group considers environmental criteria when choosing locations for its sites, looking at climate and geological risks, the impact of its activities on the human and natural environment, and land use. The objective is to optimise compatibility between the Group's activities and the environment. Some activities, such as pyrotechnics, require a specific site due to the risks they generate and need to be bounded by extensive security areas and suitable geology. These areas account for approximately 80% of areas occupied by the Group (two sites in Australia and one in France). However, steps are taken to enhance their ecological value either by promoting biodiversity or by converting them into pasture or farm land. Due to their activity, the majority of other Group sites tend to be in industrial areas (53% of land area excluding pyrotechnics sites).

5.5.2.5.2 Technological risk management

Only one Group site in Europe is a Seveso upper-tier establishment, while two sites in Australia are classified as high industrial risk. In addition to the preventive measures mentioned above and in section 5.4.3.2, a safety management system (including measures such as a major accident prevention policy, a contingency plan, and a risk assessment and the associated management scenarios) is deployed and inspected regularly by the Environment Directorate (the regulatory authority) as part of the Seveso classification process.

The insurance and compensation policies for victims of accidents, including technological accidents for which the Group may be liable, cover all sites insured by the Group including upper tier Seveso sites. Risks arising from accidents (such as fire or pollution) are managed

locally, with the support of the relevant Corporate departments if necessary. Accident prevention and management procedures, as well as procedures for handling specific complaints, are in place for such cases. An accident reporting tool makes it possible to analyse accidents that do occur and draw suitable lessons from them. In 2018, five accidents occurred but had no significant impact on health and the environment as corrective measures were immediately taken.

5.5.2.5.3 Protecting biodiversity

The preservation of species, their habitat and ecosystems, the preferential use of areas dedicated to flora and the protection of historical and natural heritage are taken into account in all decisions with a view to contributing to environmental protection. As early as 2006, Thales drew up a preliminary inventory of its sites in France near or within protected areas for flora and fauna and their habitat and, on certain sites, assessed the impact of activities on biodiversity and the degree of dependence on the ecological services provided by nature. It then consolidated this information into a mapping of biodiversity-related risks for Group sites located in the most vulnerable areas. The indicators defined are used to analyse the risks for any project and integrate constraints for future developments. Although the overall impact of the Group's activities on biodiversity is low, the Group encourages its sites and employees to continue to promote action to protect biodiversity. Inventories are carried out at some sites by volunteers or in partnership with local authorities or biodiversity protection agencies, and *ad hoc* management measures are put in place.

Several Australian sites have put in place a habitat management plan which partly involves enclosing several natural habitat areas to control access to herds. This helps to re-establish the natural biodiversity and restore the region's original characteristics. Some species of flowers and animals have been registered on the site as well as some protected habitats such as that of the flying squirrel.

Other sites will focus on outdoor features to preserve the natural habitat and protect fauna (with bird boxes, bee hives, feeders, species survey by an expert, etc.) or to re-establish native species, thereby guaranteeing a balance of habitats in terms of biodiversity, and offering a relatively safe and protected habitat for a wide variety of plants, fungi and animals.

For sites with large areas of plains or forests, particular precautions are taken for fauna and flora by promoting environmentally gentle natural techniques for mowing and grazing and by eliminating crop protection products. Other sites raise employee awareness through photography exhibitions on forests, agroforestry and the species that can be found on site.

5.5.2.6 Guarantees, provisions and compensation

Thales was not cited in any environmental dispute that gave rise to compensation in 2018, and only granted one generic guarantee in relation to the environment. In addition, seven sites were the subject of a letter, request or environmental complaint (within the meaning of ISO 14001) from local authorities, employees or third parties. These have either been or are being dealt with. At 31 December 2018, the amount of reserves for environmental contingencies at Group level was €4.85 million.

5.5.3 Meeting the challenges of climate change

5.5.3.1 Climate commitment

Climate change is a major challenge which Thales wishes to address in a consistent manner through its activities and services by reducing its CO₂ emissions at source, as well as by contributing to a better understanding of climate impacts and a reduction in its customers' emissions and those of civil society, thanks to its innovative solutions or through the design of eco-responsible solutions.

To measure its greenhouse gas emissions, over 10 years ago Thales developed a methodology that is consistent with its operations and is based on the Greenhouse Gas Protocol created by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

For instance, to affirm its involvement in combating climate change, in 2015 Thales signed the Business Proposals for COP21⁽¹⁾ and presented its innovative solutions for combating climate change at the *Galerie des Solutions* exhibit at COP21 in Paris. In 2016 it exhibited at COP22 in Marrakech, and on 11 December 2017 it signed the French Business Climate Pledge⁽²⁾, again confirming its determination and commitment to this issue.

In 2018, the Thales group further honoured its commitment by setting up new multidisciplinary working groups to define a new carbon strategy and set targets for reducing its CO₂ emissions in line with the 2°C trajectory of the Paris Agreement. The working groups' key aims are to improve the flow of information regarding CO₂ emissions, determine ambitious but achievable reduction targets, establish a road map and action plan to achieve those targets, support sustainable growth and quantify the amount of CO₂ emissions avoided.

The four main line items responsible for most of the Group's CO₂ emissions have thus been assessed (see sections 5.5.3.2 and 5.5.3.3) and work has begun to consolidate them for scopes 1, 2 and 3 (use of products and services sold, purchasing and logistics, energy performance of industrial operations, commuting and business travel). The groups will continue their work in 2019.

Since 2010, Thales has also been fully transparent about its climate strategy through the Carbon Disclosure Project. In 2018, Thales's rating for its "climate change" performance remained A-, confirming its position as one of the best-performing companies listed.

5.5.3.2 Reducing emissions related to energy efficiency and chemicals

In recent years, Thales has implemented initiatives to reduce its energy consumption and use of chemicals which will in turn reduce greenhouse gas emissions related to its activities.

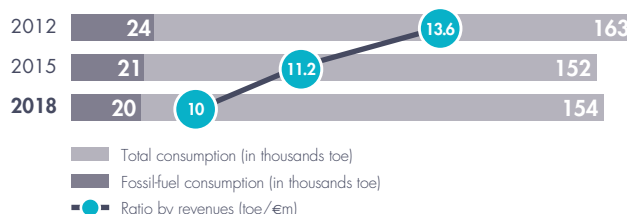
In view of the energy stakes, Thales sets targets for reducing energy consumption, resulting, for example, in very little increase in energy consumption between 2015 and 2018 (+0.5%), even though production at the most energy-intensive sites increased. Overall, the Group's energy intensity declined by 11.2% (energy consumption/revenues) during that period.

To achieve this energy efficiency, various audits were conducted at some of the sites with the highest consumption and have given rise to reduction programmes. In France, a programme involving specific audits and energy performance initiatives was rolled out across a number of the Group's sites in 2018, leading to the identification of more than 200 actions that will be pursued and monitored in 2019.

At the same time, work by the working groups on energy performance and the reduction of CO₂ emissions related to the Group's industrial operations resulted in a 2018 climate change awareness campaign targeted at the heads of the Group's industrial segments. The campaign will continue in 2019 with a new action plan to reduce CO₂ emissions.

In recent years, Thales has also been actively pursuing initiatives to improve the energy performance at its computer data centres and data rooms. These efforts have led to a reduction in PUE at the sites with the greatest impact, including Elancourt, where PUE⁽³⁾ has fallen from 2 to 1.6 since 2011.

► CHANGE IN ENERGY CONSUMPTION*



* At constant 2012 scope.

At the same time, some Group entities have been awarded ISO 50001 certification for energy management systems. At the end of 2018, a total of 30 entities were certified, encompassing 27% of the Group's workforce.

The Group's carbon footprint has also been reduced by restricting the use of fossil fuels (gas, fuel oil and coal), with their consumption in relation to revenues continuing to fall in 2018 (down 34% compared with 2012). The percentage of electricity from renewable sources was unchanged from 2017, representing 17% of electricity consumption in 2018.

Refurbishing and renovating certain buildings to higher ecological standards and changing equipment and consumption habits are all measures taken to improve energy efficiency and thereby help to reduce direct CO₂ emissions. Environmental criteria are included in decisions about buildings, new facilities and equipment (architecture, materials, technical building management, comfort, access, etc.) and energy performance is optimised. The energy efficiency of industrial processes has also been optimised where possible. Along with energy, products with high global warming potential, used mainly in refrigeration systems, are subject to monitoring and reduction plans.

Lastly, to limit greenhouse gas emissions, many sites continued to replace high-emission refrigerants with equipment containing less polluting refrigerants.

Particular attention is paid to sulphur hexafluoride (SF₆). This gas, used in a specific industrial process to insulate electronic tubes during high-voltage tests, has very high global warming potential. It is used by very few sites; those that do use it have implemented ambitious plans to reduce emissions, such as manufacturing tubes without using SF₆ or modifying equipment using this gas. They have also rolled out training and awareness campaigns for relevant employees on the environmental impact of SF₆ and/or implemented specific monitoring of incoming and outgoing SF₆ by workshop. This helped reduce emissions by 89% between 2012 and 2018. In 2018, SF₆ only accounted for 5% of CO₂ emissions due to refrigerant fluids, versus 11% in 2017.

(1) Business Proposals for COP21: proposals signed by 59 companies which committed to contributing to the low-carbon transition by demanding constructive dialogue between states and companies, a carbon price to be set, increased investments in the search for low-carbon solutions and a step up in R&D and innovation.

(2) French Business Climate Pledge: on the eve of the One Planet Summit on 12 December 2017, 91 French companies of all sizes and from all sectors announced the signature of a shared commitment to climate. Each of these companies put forward its actions as a committed player in the fight against global warming.

(3) PUE: Power Usage Effectiveness – an indicator that qualifies the energy efficiency of an IT operating centre.

5.5.3.3 Reduction of greenhouse gas emissions from operations

In order to reduce its CO₂ emissions, Thales is increasing efforts specifically with regard to energy, substances and transportation.

In 2018, it continued the work that it began in 2017 to assess CO₂ emissions related to the use of products and services sold. Within the framework of the dedicated working group (see section 5.5.3.1), a methodology was established for assessing use phase-related CO₂ emissions based on actual consumption data and on scenarios for standard vehicle use. The first estimates of CO₂ emissions related to the use phase of products placed on the market in 2018 were 22 10⁶ tCO₂eq with estimated overall uncertainty of 30%.

Data obtained during the study will be fine-tuned in 2019 to determine the ambitious but achievable CO₂ emission reduction targets for each of the Group's product lines and services.

Thales encourages its partners to adopt a responsible attitude regarding climate change. To illustrate its commitment, Thales is a member of the Carbon working group of the French Aeronautics and Space Industry Group (GIFAS) and is participating in the greenhouse gas working party of the International Aerospace Environmental Group (IAEG) to define international emissions accounting standards. During the year, the IAEG's work led to the updating of the standard methodology guide for reporting greenhouse gas emissions as well as the launch of a study to create sector guidelines for calculating CO₂ emissions related to the purchase of goods, services and capital goods.

Thales is also increasing its initiatives to reduce emissions from business travel by making use of a travel policy, modern information technologies, carpooling, electric vehicles and travel diagnostics and by highlighting the benefits of alternative means of transport to its employees and efficient communication tools. For example, a car-sharing pilot test is being set up in the Paris region involving cars, some of them electric, used to travel between sites.

In addition, when allocating or replacing company cars, the company gives preference to models emitting less than 120g of CO₂/km.

In 2018 a survey was conducted of all Group employees regarding their commuting habits. The study received responses from 21% of employees and will be used in 2019 to pursue the Group's efforts regarding travel between home and office.

5.5.3.4 Adapting to climate change

The approach adopted by Thales for adapting to climate change is designed to reduce the Group's vulnerability to such related impacts as extreme weather (storms, floods, etc.), seismic events or resource scarcity.

Over the past few years, Thales has assessed the exposure of Group sites to natural disasters as part of annual site visits focused on prevention. This analysis consists not only of identifying the potential risks of flooding, storms and earthquakes, but also of identifying the consequences of these events in terms of environmental impact, property damage, business continuity, etc.

Thales has mapped its risks related to water at around 160 sites worldwide. The analysis of existing and future risks included the social dimension (access to water and sanitation, availability of water for local inhabitants), economic aspects (conflict of use) and environmental concerns (water consumption relative to the level of water stress in the river basin). Only 10 sites are located in vulnerable areas. The majority of them are offices, whose low water consumption only has a very minor impact. Thales is currently looking into extending this analysis to the mapping of its critical suppliers so it will be in a position to assess its exposure to the risk of natural disasters for its supply chain.

Thales is also involved in the study being conducted jointly by AFEP (French private companies association) and French think tank the Shift Project to analyse energy and climate scenarios. The study will be accompanied by a set of recommendations that will be issued to companies. A total of 15 AFEP members are involved in the study, which aims to produce a factual assessment of the situation based on common observations and gain more understanding of climate change, which will be a major topic of reporting for companies, including Thales, in the years to come.

5.5.4 Product and system solutions for the environment and for customers

Thales has embarked on a process to develop products and systems that meet different needs, specifically:

- compliance with and anticipation of environmental regulations for the purpose of managing obsolescence and the associated industrial risk;
- creation of value for customers and differentiators for the market through innovation;
- reduction in environmental impacts and compliance with the Group's commitments.

The three main guidelines of this process are:

- consideration for the environment throughout a product's life cycle;
- the development of features to improve customers' environmental performance;
- the development of products that strengthen the control and understanding of environmental issues.

The process is combined with other key processes undertaken by the Group, which include the Product Policy, Engineering, Industry and Purchasing. The Group is also developing methods and tools, including guides, questionnaires, check lists, calculators, databases and impact analyses, to help product designers and architects make eco-responsible

choices, leverage environmental information and verify that chosen solutions comply with regulatory requirements.

In 2018, environmental impact analyses performed on products made it possible to characterise key parameters based on the products' nature and use. Besides the necessary replacement of hazardous substances, it emerged that for almost all products, it was the use phase that generated the most significant impacts, particularly in terms of CO₂ emissions. Furthermore, the analyses revealed a strong correlation between CO₂ emissions and other environmental impacts, which in turn identified what will be needed to drive action.

For products built into mobile platforms, the main parameter in terms of environmental impact was the nature of the platform's movement (within the Aerospace, naval, rail sector, etc.) and its profile (service life, percentage of time spent in motion, etc.). This was largely due to the impact of the weight being moved and, to a lesser extent, the platforms' consumption.

The smaller the mobility of the platform, the more the use-phase consumption must be taken into account, to the point where movement becomes the only truly significant parameter for fixed equipment or equipment with a high use rate.

Performance related to the anticipation of environmental standards in product design (NFPS):

Development of tools for the eco-design awareness programme: training materials were made available in 2018

Creating awareness of environmental issues and taking these into account in new product development are an essential part of eco-design policy. In 2018, the company developed training and educational materials primarily for engineering teams and product policy managers. Pilot training sessions were conducted at various sites to consolidate these materials and prepare them for roll-out starting in 2019.

5.5.4.1 Obsolescence and value creation

The increase and changes in environmental regulations (RoHS, REACH, TSCA, etc.), which have led to the restriction and in some cases prohibition of the use of certain substances, have increased the risk that equipment or systems may not be able to be manufactured and supported throughout their life cycle. For this reason, Thales has taken a proactive approach to its processes and practices which involves anticipating risks and implementing the measures required to manage them.

This approach relies on centralised regulatory monitoring, which is constantly increasing in scope, and the resulting information is then summarised and disseminated in the form of an alert to the Thales players concerned. All of these data are entered into Thales's central database, which is accessible to all group entities, as well as the PLM (Product Lifecycle Management) and ERP (Enterprise Resource Planning) systems. An analysis tool developed by Thales makes it possible to cross-reference all of this information to ensure, first and foremost, compliance with regulations and then secondly to perform the impact analyses needed to anticipate the risk of obsolescence.

Thales also endeavours to identify replacement products and processes if a hazardous substance presents a risk or might be banned. Substitution plans have been introduced to manage this issue, in light of the potential impact a ban on certain chemicals could have on Thales's processes and equipment. These investigations into replacements, produced internally or with manufacturing partners, aim to assess the performance of alternative industrial processes and ensure that manufactured products remain compliant with technical requirements. In some cases, it is necessary to redesign products and interfaces and rescope industrial tools.

Performance related to the anticipation of environmental standards in product design (NFPS):

Industrial processes affected by the replacement of chromates – adherence to schedule regarding deadlines

In the case of chromates, for example, Thales began researching replacement processes in 2013 for more than 30 industrial processes used in its applications, making sure that its subcontractors would have the ability to handle them. To date, the company has allocated more than €6 million to this research and the roll-out of replacements in equipment and systems. It continues to monitor the progress of these replacements, which were between 30% and 90% complete at the end of 2018, depending on the segment, to ensure completion by the required deadline.

For this approach to be sustainable, consideration of environmental issues in product development must be accompanied by value creation for customers. This is primarily addressed through the company's product policy and its approach to eco-design. In the case of most Thales products, environmental impact mostly occurs during the use phase of equipment and systems at customer sites. Consequently, eco-design initiatives are aimed at simultaneously strengthening the value proposition to the customer (better operating conditions, lower total costs of ownership, optimised end-of-life management) and significantly improving the environmental situation.

A cross-functional Steering Committee, coordinated by the HSE Department and comprising HSE coordinators from all the GBUs, ensures responsible management.

5.5.4.2 Understanding and limiting the effects of climate change

5.5.4.2.1 Measuring and understanding the effects on the environment

Thales has been involved in the development of satellites, optical instruments and high-performance radar to monitor the environment and climate change since 1974. As such, it is a key player in observing the earth, understanding climate change and monitoring the environment.

Examples include the entire family of geostationary weather satellites, optical instruments for monitoring vegetation, Envisat/MERIS hyperspectral imaging for the colour of water, the ERS and COSMO-SkyMed radar satellites, the ASAR instrument, TOPEX/Poseidon and Jason-1, 2 and 3 altimetric satellites and radar instruments used in oceanography, IASI atmospheric instruments, and ice observation radar (CryoSat). Today, Thales Alenia Space is in charge of the Sentinel radar (Sentinels 1A, 1B, 1C and 1D), the oceanography Sentinel-3 (Sentinels-3A, 3B, 3C and 3D), and Sentinel-6/Jason CS (instrument inherited from Poseidon, world leader in space altimetry).

Objectives	Project
Study of the topography of oceans and continental surface waters	SWOT (Surface Water and Ocean Topography) is a major breakthrough in a segment with very high strategic, economic and societal stakes. In oceanography, the satellite will provide measurements of ocean surface and wave height with higher resolution than its predecessor Jason satellites, resulting in more accurate models of the interactions between oceans and the atmosphere. The hydrology mission will evaluate continental surface water, to study changes in water storage in humid zones, lakes and reservoirs, as well as flow rates in rivers. The satellite structure has been delivered and the sub-system that makes it possible to expedite the satellite's disintegration into the atmosphere far from any inhabited area or maritime routes was completed in 2018. This sub-system will be the world's first platform to carry out a controlled re-entry of a satellite at the end of its life, leaving no debris in orbit, in compliance with the law on space operations that will enter definitively into force in 2020. The satellite is scheduled for launch in 2021.
Report on greenhouse gas emissions	Between 2012 and 2016 under the BridGES industrial chair and then from early 2018 under the Trace industrial chair which succeeded it, Thales Alenia Space conducted research with climate scientists, most notably from France's Laboratory of Climate and Environmental Sciences (LSCE) and Dynamic Meteorology Laboratory (LMD), on optimising space mission concepts related to modelling (inversion, transport and radiative transfer models) with the goal of measuring anthropogenic emissions of greenhouse gases CO ₂ and CH ₄ . Thales Alenia Space has also led, and continues to lead, research with the French National Centre for Space Studies (CNES) and the European Commission (ongoing CHE: H2020 project), and internal development projects.
Mapping of terrestrial vegetation fluorescence to measure photosynthetic activity	At the end of 2018, Thales Alenia Space signed a contract with the European Space Agency (ESA) to lead the Fluorescence Explorer (FLEX) satellite mission as well as a novation agreement to incorporate the contract that ESA initially awarded to Leonardo to develop the FLORIS instrument. Leonardo's FLORIS instrument is a high-resolution imaging spectrometer that will capture light emitted by plants and break it down into its constituent colours. The sensor can then identify the faint reddish glow emitted during photosynthesis, normally invisible to the naked eye, and accurately identify the fluorescence of vegetation, allowing researchers to evaluate the health of the earth's ecosystem.
Measuring anthropogenic CO ₂ emissions	The programme set to position Europe as a major (and independent) contributor to anthropogenic CO ₂ emissions measuring is CO2M, the future Copernicus mission that is still being defined. CO2M follows on from the studies carried out for Carbonsat and will be the only imager for CO ₂ , with a radius of approximately 200 km. Its advantage over other sounders is that it will be able to cover considerably more anthropogenic emissions in a single pass, so that work can start on addressing these emissions. As part of the future CO2M-Copernicus programme, Thales Alenia Space is currently assessing various instrument concepts for phase A/B1 that will be best suited to the specifications provided by the ESA.

5.5.4.2.2 Control and prevention

Some of the observation methods mentioned above are also used for control and prevention, helping to improve the management of fishery, agricultural and forest resources. They are supplemented by monitoring systems set up on ships and aircraft. Examples of some of the specific items that are monitored so that action can be taken as needed to protect the environment are:

- pollution and tracking of pollution movements;
- forest fires and beach erosion;
- deforestation;
- illegal exploitation of mines or natural resources.

5.5.4.3 Eco-responsible products and innovation

5.5.4.3.1 Environment and product life cycle

Thales relies on a holistic approach that takes into account a product's entire life cycle, from extraction of raw materials up to disposal of the product at the end of its life, as well as all environmental criteria (consumption of raw materials, water and energy; discharges into water and air; waste production, and so on). Research conducted in recent years to characterise Thales's main products has identified two priority areas for improvement:

- the use of sustainable resources for product design and manufacturing, with particular focus on anticipating regulations on hazardous substances in new development;
- the reduction of product energy consumption and CO₂ emissions.

5.5.4.3.2 Sustainable resources and replacement of hazardous substances

The Group's overall approach to design, aimed at reducing the weight of its products, helps to minimise resource consumption. Relying on standard dimensions for plates and structural sections means fewer "shavings". The use of new technologies, such as additive manufacturing, combined with the use of topological optimisation tools, limits the consumption of materials for a given need.

Thales also pays close attention to the availability of critical resources and responds to surveys conducted by European and French authorities.

Any substances that might be banned as a result of regulatory changes are monitored particularly closely (see section 5.5.4.1).

5.5.4.3.3 Eco-design to help the environment

The table below contains examples of products for which environmental impact reductions have been achieved as a result of following the measures discussed above:

Performance related to the anticipation of environmental standards in product design (NFPS):

Assessment of the reduction in products' environmental impact: **1 eco-product** representative of each activity segment

Improvement type	Product	Action and results obtained
Reduction in the weight of moved equipment, consumption and cable length	Reduction in moved weight in the land sector with the new Sophie camera, unveiled at Eurosatory 2018. (LAS GBU)	The general eco-design strategy for tactical products naturally focused on the need to improve user comfort. The new product architecture has reduced the product's absolute weight by almost 40% to 2.5 kg , while improving its technical performance. A further reduction comes from the integration into the camera of features previously provided by other devices (e.g. optical binoculars). For equivalent functions, therefore, the weight saving exceeds 60%. Over the entire life cycle, and for this small piece of equipment alone, hundreds of litres of fuel and more than one tonne of CO ₂ are saved by the platforms that receive users and their equipment. Meetings with users ensured the equipment met operating needs.
	Reduction in the weight and length of cables in the naval sector with the integration and miniaturisation of RESM (Radar Electronic Support Measurement) systems for surface vessels. (DMS GBU)	The latest generation dedicated to medium-size frigates will see its weight reduced by nearly 50% for the second time. Overall, weight will have been reduced by 75% in under 20 years. The cable length of these systems was initially 2 kilometres. It has now been reduced by a factor of three. These gains once again are reflected in a reduction in ships' weight and consumption, amounting to several hundred tonnes of fuel and CO ₂ after 20 years of navigation.
	Reduction in the weight and electrification of aircraft in the Aerospace segment with TR5000 energy conversion equipment. (AVS GBU)	Development teams have succeeded in reducing weight by approximately 7% compared to the previous version. Furthermore, energy efficiency has improved by almost 30% to exceed the threshold of 1,000 W/kg. In practical terms, this helps control the effects produced by the installation of increasingly powerful on-board energy systems.
	Expansion of efforts regarding weight and equipment in the Aerospace segment. (AVS GBU)	An example would be version 3 of the IESI (Integrated Electronic Stand-by Instrument) which saved more than 20% in weight and more than 35% in consumption compared with version 2.
"Eco" mode	Possibility to switch to "eco mode" if mission is compatible with SMART L radar. (LAS GBU)	It is equipped with a liquid cooling system and temperature control unit. An "eco mode" compatible with the mission's constraints reduces consumption by 50% while slowing down the ageing of critical components. This feature, which was not requested by the customer, was identified during development as a way to optimise the overall system.
Revisions to equipment architecture	Reducing consumption and weight by leveraging initial impact analyses. (SIX GBU)	With regard to the development of secure communications equipment, impact analyses have made it possible to define more ambitious targets for reducing consumption and weight than those initially required. These are currently being carried out, largely by revising the equipment's architecture to improve the consumption/performance ratio.

Improvement type	Product	Action and results obtained
Innovations geared towards the environment	Multiple innovations geared towards the environment with the <i>Stratobus</i> project. (Space GBU)	Launched in 2016, <i>Stratobus</i> is an autonomous geostationary stratospheric platform designed for a wide range of applications such as border and maritime surveillance, boosting GSM network capacity for public events and augmenting GPS over areas of dense traffic. It runs on solar energy only and does not require a launcher to be put into position . It is made from recyclable subsystems and the use of hydrogen or helium considerably reduces the risk of pollution in the event of an accident. It features many innovations, including a power-generation system (coupling the solar panels to a solar power amplification system patented by Thales) and an ultra-light reversible fuel cell for energy storage . Successful testing of innovative, ultra-light, flexible and high-performance photovoltaic modules was completed during 2018. They have a mass of less than 800 g/m ² and provide power in excess of 200 W/m ² . <i>Stratobus</i> is scheduled for development in 2019 for a maiden flight at the end of 2022.
	Eco-design of a satellite under the ESA's GreenSat project. (Space GBU)	Thales has also been selected to participate in ESA's GreenSat study. The study focuses on eco-designing a satellite based on a life-cycle assessment (LCA) to reduce its environmental impact as much as possible . The LCA produced for the benchmark mission (Sentinel 3) identified the main hot spots and defined targeted strategies to remedy them. After a quantitative analysis of the benefits of each eco-design, the options were filtered and shortlisted. In the final stage of the GreenSat project, the three best strategies will be built into the satellite and development road maps will be drawn up to increase the maturity level of these concepts.

5.5.4.4 Innovative climate solutions

5.5.4.4.1 Solutions for reducing customers' environmental footprint

The solutions offered by Thales to air and land transport operators and referred to in the next paragraph are designed to optimise operating efficiency for customers at the same time as limiting environmental impact.

In a different domain, the development of simulators, besides specific eco-design, makes it possible to reduce the number of flight hours required for pilot training. The Reality H helicopter simulator combines the above two benefits thanks to energy consumption that is five times lower than the previous generation. This is due to the use of electrical power that is far more efficient and non-polluting, lighter and recyclable materials, and easier transportation with lower CO₂ emissions.

5.5.4.4.2 Sustainable air and rail mobility

From flying to air traffic management, for over 30 years, Thales has been developing features that improve performance and lower the environmental impact during all flight phases:

- navigational aids to optimise flight paths, take-off and landing phases in particular and taxiing that take weather conditions into account, thus reducing noise, emissions and consumption;
- systems for more fluid air traffic management with less waiting time in airport stacks.

The programmes undertaken to achieve these goals are described in the table below.

Programme	Impact
Thales is a contributor to the European SESAR programme , which coordinates R&D in the Air Traffic Management sector . The sector faces major challenges, including: increasing the safety and capacity of air space and airports; reducing the environmental impact; optimising the road network; sharing information with all stakeholders; and capitalising on ground-to-air exchanges.	Thales helps with flight optimisation by providing more accurate information about an aircraft's position . Demonstrations have been carried out and the development of the certified software functionality was finalised in 2018 , with certification expected in the first quarter of 2019. Some 100 aircraft are to be equipped by the end of 2019, in parallel with the adaptation of airports to the new rules and the training of staff concerned.
In 2018, the European Union's Global Navigation Satellite System Agency (GNSS) officially launched the EDG2E project (Equipment for Dual Frequency Galileo GPS and EGNOS) with a consortium led by Thales.	The goal is to optimise aviation navigation with the Galileo constellation . This four-year project will develop a dual-frequency mini-constellation receiver for aircraft that will enhance navigation capabilities , support standardisation and help prepare for certification.
Also in 2018, Thales signed the OneSKY programme in Australia , which will offer a global solution for controlling civil and military air traffic across 11% of the globe .	The choice of preferred routes will take account of the type of aircraft, and fuel, weight and wind loads . The reduction in fuel consumption will lead to a reduction in CO₂ emissions as well as a reduction in noise pollution around airports.

In today's increasingly urbanised world, creating sustainable conditions for urban mobility and inter-city travel is one of the most effective ways to reduce CO₂ emissions. Thales provides operators with transport systems that simplify access to transport through interconnected public transport, improve traffic flow, reduce consumption and increase network capacity by reducing journey times.

For example, the Green SelTrac® CBTC solution reduces a train's energy consumption by 15% by loading efficient speed profiles into the train's on-board system, allowing it to continue running under its own momentum whenever possible. The ATSoft Energy Saving solution takes advantage of interactions between trains to save energy by optimising real-time traffic management: use of slow speed profiles when the operating circumstances permit and optimisation of current recovery from train braking by synchronising the acceleration of some trains with the braking of others.

In 2018, Thales finalised the acquisition of Danish company Cubris (GTS GBU), a leader in Driver Advisory Systems (DAS) for main line trains. DAS allows for the real-time, fully secured exchange of information between the railway system and the train driver in order to optimise the driving of the train and reduce CO₂ emissions. These systems are a key technology for the future autonomous train. Cubris has developed and delivered a well-recognised Driver Advisory System called GreenSpeed™, which is already in service in Denmark (DSB and Lokaltog), the UK (South West Trains) and Sweden (Transdev). It is

currently being implemented by Transdev in Germany and by Finnish Railways (VR) in Finland.

5.5.4.4.3 Smart city

Data analysis makes cities function more efficiently. Thales's solutions collect data on such parameters as water and energy consumption, subscriptions to various public and private services, and transport users, allowing city authorities to improve residents' quality of life and reduce their environmental footprint. Through its data analysis solutions, Thales helps city planners and managers:

- leverage the gigantic data reservoirs of the connected city – smartphones, street lighting, transport, billboards, access to public places, surveillance cameras, etc. – to better understand and anticipate the needs of residents and offer them services that make their lives easier;
- inform users via traffic information systems, giving motorists and train passengers information on traffic conditions in near-real time;
- manage day-to-day operations more effectively and facilitate the coordination of the various players, especially in the event of an emergency. These solutions also improve the environmental efficiency of cities with regard to water and energy consumption, transport use, etc.

Solution	Impact
PRESTO system (Toronto, Canada)	The PRESTO electronic system, designed and developed by Thales, allows residents of the Greater Toronto Area to travel using the various means of public transport (train, underground, bus) using a single ticket , in the form of a contactless electronic card that can be used across the entire network. Statistical analysis applied to the data collected gives an insight into mobility across this vast area, meaning that supply can be tailored to actual needs, new services can be created and the use of public transport can thereby be encouraged.
Implementation of the CBTC and ISC systems (Hyderabad, India)	Thales contributes to the Hyderabad programme (India) to become a city where urban public transport is being developed by supplying the new metro system opened in November 2017 with CBTC (Communications-Based Train Control) and ISC (Integrated Communications and Supervision) systems, for the very first time in the country. This environmentally friendly metro should reduce carbon emissions both through operating on electricity and by limiting high-emission road transport .

5.5.5 Other environmental indicators

The table below includes a number of items for assessing trends in Thales's environmental performance on a comparable basis. In 2018, the scope comprised 28 countries and 151 sites. This scope represents 97.5% of revenues and 98.75% of the Group's workforce.

2015 is the base year for the 2016-2018 goals.

This chapter was reviewed for fair presentation by Mazars. The indicators included in the table below are subject to a moderate assurance conclusion presented in the detailed opinion in section 5.8 Independent Third Party Report.

	Units	2012-2015 change (at constant 2012/2018 scope)	2016	2017	2018	2016-2018 change
Energy						
Electricity consumption	Thousand toe	-5%	131	132	131	0.3%
Per revenues electricity consumption	Toe/€m	-17%	9.1	8.7	8.5	-11%
Fossil energy consumption	Thousand toe	-11%	21.9	22	20.4	-3.4%
Per revenues fossil energy consumption	Toe/€m	-22%	1.52	1.44	1.32	-14.6%
Total energy consumption	Thousand toe	-7%	155	156	154	0.5%
Per revenues total energy consumption	Toe/€m	-18%	10.7	10.2	9.98	-11.2%
Water						
Water consumption	Thousand cu. m	-11%	1,587	1,593	1,502	-2%
Per revenues water consumption	Cu. m/€m	-22%	110.3	104.4	97.1	-14%
Waste						
Total waste production ^(a)	Tonnes	-4.7%	14,967	16,080	15,278	1.6%
Per sales total waste production ^(a)	Kg/€m	-16.8%	1.04	1.05	0.99	-10%
Ratio of non-hazardous waste ^(a)	%	-9.1%	75	81	79	8.3%
Non-hazardous waste per person ^(a)	Kg/pers.	-9.1%	159.7	179.5	166.8	3.5%
Non-hazardous waste recycling rate	%	22.4%	50	55	59	-7.8%
Non-hazardous waste recycling rate ^(a)	%	2%	52	56	58	2.7%
Hazardous waste recycling rate	%	-21.4%	25	32	40	112%
Industrial discharge						
Industrial wastewater discharge	Thousand cu. m	-21%	652	595	627	12%
Air emissions	Tonnes	25%	993	923	325	-65%
CO₂						
CO ₂ emissions from energy use	Thousand tonnes CO ₂	-13%	187	188	186	-0.3%
Per revenues CO ₂ emissions from energy use	T CO ₂ /€m	-24%	13	12.4	12.1	-12%
CO ₂ emissions linked to Kyoto Protocol substances and R22	Thousand tonnes CO ₂	-4%	27	30	25	-29%
O/w CO ₂ emissions linked to SF ₆	Thousand tonnes CO ₂	-44%	1.6	3.4	1.3	-81%
CO ₂ emissions from transport (Group-wide)	Thousand tonnes CO ₂	-3%	81	77	77	-2%
Per revenues CO ₂ emissions from transport	Kg CO ₂ /€m	-15%	5.6	5.1	5.0	-14%
CO₂ scope according to GHG Protocol						
Scope 1 (gas, fuel oil, coal, substances, mobile energy sources)	Thousand tonnes CO ₂	-9%	82	86	75	-14%
Scope 2 (electricity, steam)	Thousand tonnes CO ₂	-12%	134	136	138	1%
Scope 3 (business travel by air, rail, road)	Thousand tonnes CO ₂	-3%	81	77	77	-2%
TOTAL SCOPES 1, 2 AND 3	THOUSAND TONNES CO₂	-9%	297	299	290	-4%
TOTAL SCOPES 1, 2 AND 3 PER REVENUES	TCO₂/€M	-20%	21	20	19	-15%
Other disclosures						
ISO 14001-certified sites			120	124	118	
Staff concerned as percentage of total workforce	%		89%	89%	89%	

(a) Excluding exceptional waste.

5.5.6 Environmental reporting rules

5.5.6.1 Scope

The consolidation scope of environmental data is based on the financial consolidation scope. However, due to restricted activity and/or workforce or the absence of operational control by Thales, certain establishments have not been included.

In connection with this report, the 2018 indicators are provided at constant scope with 2015.

5.5.6.1.1 Criteria

Only companies meeting the following criteria are included:

Equity interest and operational control

- Thales equity interest of 50% or more;
- Thales exercises operational control over the company.

Companies and joint ventures not meeting the above criteria are not included in Thales' environmental reporting.

Activity/workforce

- "establishment/site" carrying out an activity covered by Operating Model 4, regardless of headcount;
- "establishment/site" carrying out an activity covered by Operating Model 3, with a headcount of more than 50;
- "establishment/site" carrying out an activity covered by Operating Model 2, with a headcount of more than 100.

The instruction "Definition of HSE Management System levels" provides details of the operating model levels (classified according to type of activity: industrial, semi-industrial, tertiary).

Environmental Management System

All "establishments/sites" that are ISO 14001 and/or EMAS and/or OHSS 18001 and/or ISO 45001-certified are included in the reporting scope irrespective of the criteria related to activity.

5.5.6.1.2 Changes in scope

- Disposals/acquisitions: company to be included as soon as one full calendar year has been completed and if the company meets the scope selection criteria.
- New business: company to be included as soon as one full calendar year has been completed and if the company meets the scope selection criteria.
- Inter-site transfers: data taken into account in the reporting:
 - of the departure site from 1 January Y to the date of transfer,
 - of the arrival site from the date of transfer to 31 December Y.
- Intra-Group merger: integration of data for the absorbed entity for the period from 1 January Y to the date of absorption into the data of the absorbing entity.

5.5.6.2 Reporting procedure

The Group-wide reporting system includes an environmental reporting procedure with instructions for each successive stage of data entry, validation and consolidation. It also defines the roles of each person involved and includes the recording of data (traceability, archiving, etc.).

5.5.6.3 Indicators

Environmental concerns change over time. Environmental performance indicators therefore have to evolve to stay abreast of developments and reflect the Group's policy priorities. Different interpretations of certain indicators can lead to conflicting data from different countries. Thales is therefore adapting the indicators to make the environmental reporting system more efficient, building on lessons learned from previous years and refocusing the reporting effort on current and future environmental concerns. The indicators are described in the reporting tool. Information is also available on the calculation of the carbon footprint.

5.5.6.3.1 Reporting tool

An environmental reporting and management tool for the entire scope of consolidation of the Thales group is available on the corporate intranet. This tool consolidates the data from each entity, country and geographic area, and for the Group as a whole. It checks data consistency and suggests country-specific units of measurement, conversion factors, etc. The same tool provides access to the rules for data entry, validation and consolidation defined in the reporting procedure.

5.5.6.3.2 Analysis of performance

For easier analysis of environmental data, the Group reporting system incorporates the following principles:

- changes in scope specifically related to disposals and acquisitions. For each family of indicators, a gross figure is given (e.g. water consumption in cubic metres) and a ratio supplements the information to take account of changes in scope (e.g. water consumption per person);
- Group targets are set for a given period. During that period:
 - changes in performance are assessed on a like-for-like basis (i.e. at constant scope of consolidation),
 - coefficients such as emission factors for CO₂ emissions are constant;
- if emission factors are modified at the start of a new period, the performance data for the reference year are recalculated using the new coefficients;
- the principles and methods for reporting on data are described in the methodological guides to environmental reporting and calculation of CO₂ emissions, which are available in the Group reporting system.

5.6 A POLICY OF CORPORATE RESPONSIBILITY BASED ON A STRONG ETHICAL COMMITMENT

5.6.1 Preventing corruption and influence peddling

Corruption represents a major risk for multinationals, particularly those with export operations. It exposes these companies, as well as their employees and managers, to criminal and civil sanctions and can be very damaging to their reputation.

At the end of the 1990s, in order to protect itself from these risks, Thales introduced a corruption risk prevention policy, which is being continually improved. This policy is regularly reviewed and the provisions are constantly adapted to reflect legislative and regulatory developments, including the entry into force in June 2017 of the French law on transparency, the fight against corruption and modernisation of the economy (known as the Sapin II law).

The policy is based on a programme of compliance, the various components of which are integrated into the operational procedures, and supported by a dedicated organisation.

5.6.1.1 Anti-corruption compliance programme

Thales's compliance programme is based on:

- clearly stated, shared principles. The Chairman and Chief Executive Officer, addressing all Group employees, reiterated the commitment of zero tolerance made by the Board of Directors and Corporate Management. The Group's Executive Committee approved the new anti-corruption compliance programme that applies to all subsidiaries and all companies controlled by Thales, both in France and internationally;
- a Code of Conduct "Prevention of corruption and influence peddling", which, in keeping with the commitments of the Code of Ethics, defines the various types of behaviour that are to be prohibited due to their potential to be characterised as acts of corruption and influence peddling;
- a corruption risk mapping, drawn up in accordance with the Group's general methodology for mapping risks;
- a system for evaluating third parties (mainly customers, suppliers, subcontractors and partners), including preventive measures proportionate to the risks (due diligence, disclosures and commitments, etc.);
- accounting audits integrated into the Group's internal control rules to prevent and detect acts of corruption and fraud;
- an employee training programme reviewed in 2018 to provide an innovative training pathway tailored to employees' exposure to the risk of corruption. It comprises a new mandatory e-learning training module, which in 2018 was taken by 4,563 people and will be continued in 2019, and classroom-based training, which is currently being developed for the functions identified as most at risk;
- an extensive alert system. Thales decided to upgrade its alert system to a single system open to employees and external and occasional collaborators for warnings that fall within the scope of France's Sapin II law and Duty of Care law. The system has been designed to protect whistle-blowers and preserve data confidentiality.

The Group's alert system received 15 business alerts in 2018, 11 of them considered admissible. Of those 11 alerts, eight were related to human resources, two to compliance and one to the environment. Of the alerts that triggered specific follow-up, eight resulted in additional investigations. No alerts about corruption or influence peddling were sent via this system.

Performance related to the risk of non-compliance with the rules of ethical business conduct (particularly the fight against corruption and influence peddling) (NFPS):

Number of operational entities that assessed risks of corruption in 2018: **113**

Anti-corruption training (e-learning) in 2018: **4,563**

Alerts received via the Thales alert system in 2018: **15** including warnings about acts of corruption: **none**

All measures implemented under this compliance programme are monitored on a regular basis.

The overall system is supplemented by Thales's active participation in various initiatives in the fight against corruption. Thales actively participates in national professional organisations (including MEDEF, GIFAS and ADS⁽¹⁾) and international organisations (Business Ethics Committee of ASD⁽²⁾, ICC⁽³⁾, B20⁽⁴⁾, IFBEC⁽⁵⁾, etc.) dealing with ethical business conduct, and has an active presence within the working groups of intergovernmental organisations (OECD, United Nations, etc.).

5.6.1.2 Clear operational measures

The pillars of this anti-corruption compliance programme are integrated into the different operational processes of Thales's reference system (Chorus 2.0). From the preliminary phase of a project, the processes which govern the management of offers and projects also provide for action plans to mitigate business risks, with a particular focus on anti-corruption and influence peddling.

5.6.1.3 A dedicated organisational set-up

The Group's corruption risk prevention policy is underpinned by a dedicated organisational set-up. Thales has governance bodies and an organisational set-up designed to establish, manage and monitor the implementation of regulations with regard to the prevention of corruption risk, as well as to instil a culture of corporate responsibility throughout the Group.

Thales created an Ethics & Corporate Responsibility Committee in 2001 composed of representatives from the functional departments and the company's main host countries. This Group Committee's role is organised around three key priorities. The first is to help define Thales's policy on ethics and corporate responsibility; the second is to ensure that internal codes are kept up to date, rolled out throughout the Group

(1) Association of UK Aerospace, Defence Security & Space Industries.

(2) AeroSpace and Defence Industries Association of Europe.

(3) International Chamber of Commerce.

(4) International business community bringing together 22 employer organisations.

(5) International Forum on Business Ethical Conduct.

and communicated appropriately; and the third is to handle any ethics questions submitted to it and, where necessary, conduct an investigation – as an *ad hoc* committee – and recommend appropriate action/penalties to management. The Group's Ethics & Corporate Responsibility Committee is chaired by the Company Secretary.

The Ethics & Corporate Responsibility Department implements the policy defined by the Group. It sets the internal standards and processes relating to business ethics – more specifically regarding anti-corruption and influence peddling – working closely, and in a cross-functional manner, with all Group departments and contributes to behavioural change at Thales. It is also tasked with "preventing any breaches of the Code of Ethics and the Code of Conduct Prevention of Corruption and Influence Peddling".

5.6.2 Action to support Human Rights and fundamental freedoms

Thales signed the United Nations Global Compact in 2003 and complies with its ten principles relating to Human Rights, labour standards and environmental law inspired by the Universal Declaration of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. These ten principles are applied on the basis of agreements and best practices which ensure the Group's business activities are compliant with responsible conduct. In 2018, for the seventh year in a row, Thales achieved the Advanced level of the Global Compact differentiation programme which, with its 21 specific criteria, is the highest reporting and performance standard for responsible development. It should be noted that the Advanced level programme required an external evaluation, which Thales successfully passed in a peer review. Of the 9,900 companies that are members of the Global Compact, only 636 obtained the Global Compact Advanced level in 2018, including 101 French companies.

With regard to compliance with international business rules (including the export control process, restrictive measures and economic sanctions related to the export and re-export of armaments and related services, as well as commercial equipment and dual-use goods and technologies), Thales has established a global organisation and strengthens its internal measures and procedures on an ongoing basis.

This strong commitment is intended to protect the national security of democratic States and specifically to contribute to the fight against the spread of weapons of mass destruction. Accordingly, Thales and other European aerospace and defence companies support the United Nations Arms Trade Treaty, which came into force in late 2014.

Since 2004, Thales has ceased all activity in the field of cluster munitions, opting to respond in a proactive manner to the expectations of the NGOs involved in the field of Human Rights issues, as well as anticipating the principles and definitions of the Oslo Convention on Cluster Munitions.

Thales closely follows discussions related to the Human Rights impact of its activities. For example, in November 2018, the company took part in the UN Forum on Business and Human Rights in Geneva. This is the world's largest annual gathering on business and Human Rights with more than 2,000 participants from government, business, community groups and civil society, law firms, investor organisations, UN bodies, national Human Rights institutions, trade unions, academia and the media. The UN Human Rights Council established the Forum in 2011 to "serve as a global platform for stakeholders to discuss trends and challenges in the implementation of the Guiding Principles on Business and Human Rights and promote dialogue and cooperation on issues linked to business and Human Rights".

5.6.3 A responsible tax policy

Thales's tax policy is a global policy that applies to all countries and incorporates the Group's ethics rules.

As an international organisation, Thales pays significant taxes and duties in many countries. The Group rigorously applies tax rules and is careful to comply with local regulations, international treaties and the guidelines of international organisations.

The Group's taxation is directly related to its business strategy and activities. Thales has offices abroad only for the purpose of developing its activities or meeting operational needs.

The tax function is managed by the Group Tax Director, who reports directly to the Senior Executive Vice President, Finance & Information Systems, who is himself a member of the Group's Executive Committee.

Tax risk is fully integrated into the risk-analysis role of the Audit, Risks & Internal Control Department and is one of the internal control assessment items of the "Yearly Attestation Letter".

5.7 AN ORGANISATION THAT IS PROACTIVE TOWARDS ITS STAKEHOLDERS

5.7.1 Stakeholder mapping

The company's rapid transformation, the globalisation of trade and the propagation of digital technologies are generating new challenges in terms of ethics and responsibility, not just for Thales but also for its stakeholders.

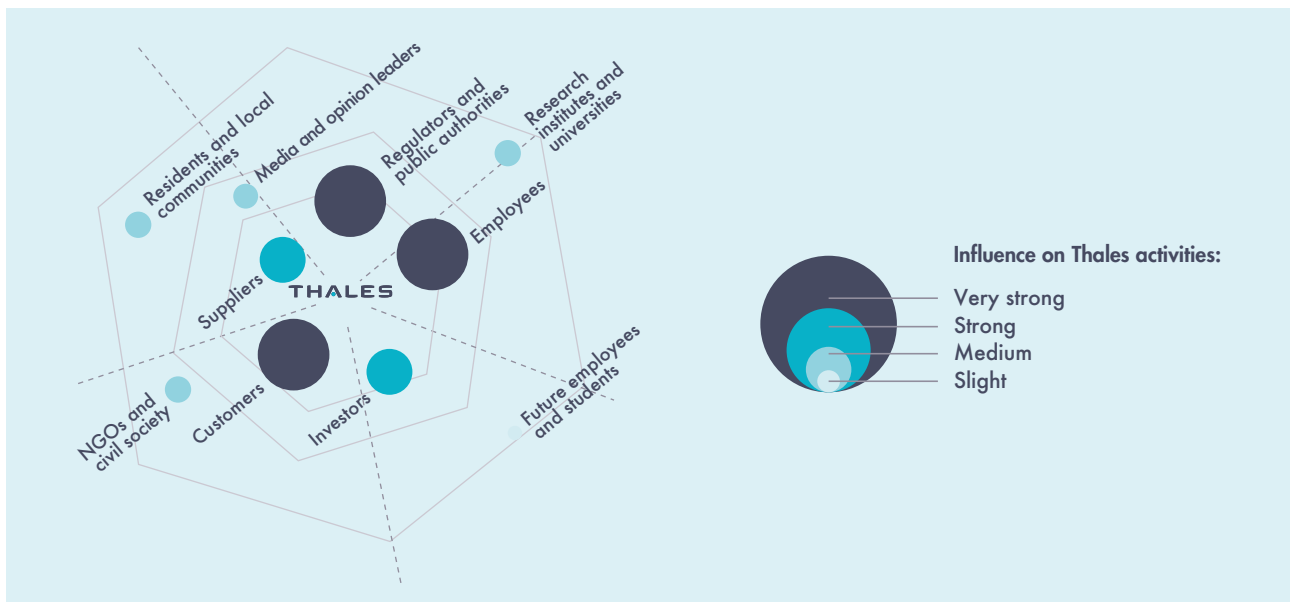
Teams at Thales promote dialogue with their ecosystems in the firm belief that listening to stakeholders is a precious source of knowledge and that decision-making is enriched by sharing different points of view.

Thales's interaction with its stakeholders is structured so that the relevant information channels, frameworks and forums for dialogue are appropriate to each stakeholder and to the issues at stake. In view of the Group's size, its international dimension and the variety of its businesses, the head

office location, the international or country business divisions and the sites are selected according to the situation.

The dialogue policy and the method for identifying stakeholders are based on the stakeholders' power of influence, i.e. their capacity to influence and impact the Group's decisions, and the level of engagement that Thales wishes to develop with them.

Stakeholders have been grouped by priority concern to manage dialogue more effectively, improve feedback regarding their expectations and make sure their expectations are aligned with the Group's long-term objectives.



5.7.2 Relationships of trust with customers

Customer confidence is central to Thales's commitments and one of its key values. The very nature of Thales's activities requires a sustainable relationship and commitment. Thales must act as a strategic partner towards its customers, understanding their challenges, strategic objectives and operational needs. Thanks to its policy of ensuring a local presence, based on offering customers proximity, attentiveness and support in the long term, it has established itself as a major industrial player in its "traditional" countries with the ability to expand its presence in high-growth countries.

5.7.2.1 An organisation which promotes customer relations

Thales's organisation is designed to develop a relationship as close as possible to its customers' environment and business activity:

- a global set-up, providing a local presence, both commercially and in terms of operational capacity;
- a global network of 250 Key Account Managers (KAM) dedicated to managing customer relations, covering all the different organisations and activities of the Group;

- Business Lines building a strategy and a range of products, systems and services tailored to the needs and strategic developments of markets and customers;
- a marketing organisation, which drives coherence between Thales's offer and the requirements of the markets and customers;
- project and support teams at the ready to respond to contractual requirements and operational needs, working in close collaboration with customers and partners;
- a Quality and Customer satisfaction organisation to support the teams and monitor customer interests.

5.7.2.2 Regular assessment of customer satisfaction and confidence

For Thales, assessing the satisfaction and confidence of its customers is a key indicator of its operational performance and a source of constant progress.

For this purpose, Thales is equipped with a global system for gauging and managing the quality of customer relations based on:

- a satisfaction survey schedule with a frequency of 18 months to 2 years;
- a network of independent consultants across a hundred countries to meet customers and take stock of relations;
- a centralised digital platform for customer data and feedback;
- indicators and analyses on the different market segments, types of customers, product lines, etc.;
- action plans coordinated by account managers to respond to the specific issues of each customer;
- horizontal analyses, which can detect weak signals and showcase advantages and differentiating factors as well as recurring customer expectations for use in performance plans;

- special tours arranged with customers to share this information, implement actions and monitor developments.

The global scope of this approach is appreciated by customers, who clearly see Thales's desire to forge relationships based on trust and cooperation, constantly striving to better respond now and in the future to their key challenges.

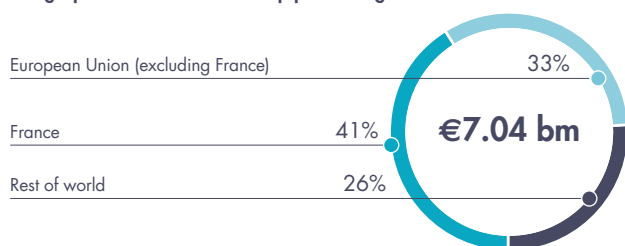
At the end of 2018, fully 75% of the Thales customers surveyed (2,000 customers) said they were satisfied or very satisfied; more than 40,000 comments were analysed to assess the quality of the Group's relationships in all interactions with its customers.

5.7.3 Incorporating the challenges of corporate responsibility in the supply chain

Thales designs and produces integrated solutions consisting of equipment, sub-systems or full systems, most of which are developed with the help of external partners. For example, purchases account for nearly half of the Group's revenues and, in a reflection of the Group's industrial footprint, more than 80% of purchases come from France, Europe and North America.

The quality and reliability of the supply chain therefore actively contribute to Thales's added value and to customer satisfaction, and as a result, the company has to adopt a responsible approach to this issue.

Geographic breakdown of Group purchasing in 2018



5.7.3.1 Responsible purchasing

5.7.3.1.1 A stringent procurement policy

Thales's procurement policy is designed such that the company works with a base of efficient, reliable suppliers who strictly comply with the domestic and international laws and regulations that apply to them, including international trade rules (export control, for example) and environmental, personal health and safety, ethical and social obligations. This policy and the Group's purchase procedures are applicable to all suppliers and sub-contractors.

This policy is based on ten responsible procurement practices specified in the Responsible Supplier Relations Charter, to which Thales has been a signatory since 2010. The aim of the charter is to develop a balanced relationship based on trust between suppliers and customers in the knowledge and respect of their respective rights and obligations. To this end, the Group has also appointed an internal mediator to liaise with suppliers to avoid or quickly resolve potential conflicts that could arise with them. The Thales internal mediator's actions are also in line with the initiatives carried out by the mediator of the French Aerospace industries association, GIFAS.

In France, Thales's commitment in this area was recognised in 2012 when it was awarded the "Responsible Supplier Relations Label" by the *Médiation des Entreprises* (business mediator) and the *Conseil National des Achats* (French purchasing board). Awarded for a period of 3 years, this label singles out companies committed to forging a structured collaborative relationship with their suppliers based on mutual respect. Thales received the renewal of this label for the period 2015-2018.

5.7.3.1.2 A responsible supply chain

Thales requires its suppliers around the world to adhere to its corporate responsibility approach by signing its Purchasing and Corporate Responsibility Charter. The charter requires them to uphold the principles of its Code of Ethics and those of the United Nations Global Compact and OECD, particularly with regard to Human Rights, labour standards, the environment and preventing corruption.

Thales suppliers must also complete a self-assessment questionnaire that evaluates their corporate responsibility performance (nine questions on labour standards, five on environmental protection, two on corporate governance, one on ethical business conduct and one on export control). They are awarded an overall score which indicates their non-financial performance.

Moreover, as part of the selection process, potential suppliers are requested to complete a self-assessment enabling them to measure the maturity of their environmental management and commit to a process of continuous improvement. This self-assessment may be verified during supplier audits conducted by Thales, which may also lead to a request for an improvement plan, or even to Thales deciding to remove a supplier from its list if certain essential criteria are not met. In this regard, Thales has already been working closely with certain suppliers for a number of years to jointly define and implement progress plans.

To achieve the goal of a responsible supply chain, the Group Purchasing Department set itself the objective of assessing the environmental maturity of all its class A suppliers (all suppliers accounting for 80% of purchasing volume) as well as each of its new suppliers, by the end of 2018. At end-2018, 10,400 supplier sites had undergone this assessment; 84% of the panel concerned were class A.

Year	Number of suppliers that have signed the Purchasing and Corporate Responsibility Charter	Supplier performance in domains of corporate responsibility (labour standards, the environment, corporate governance, business ethics and export control) (Average score out of 10)
2018	15,610	8.7
2017	12,700	8.3
2016	10,500	8.7
2015	7,660	8.8
2014	4,400	8.7

Year	Number of supplier sites assessed for environmental maturity	Class A suppliers assessed for environmental maturity
2018	10,400	84%
2017	7,500	67%
2016	4,900	60%
2015	2,400	50%
2014	1,400	36%

During call for tenders phases, environmental responsibility is one of the procurement requirements and is included in the weighted criteria for supplier selection.

These initiatives, which are aimed at developing a more responsible supply chain, are fully in line with the implementation of France's law on contracting companies' duty of care (see section 5.7.3.2).

FOCUS: SPECIAL ATTENTION PAID TO CONFLICT MINERALS

Although Thales is not subject to section 1502 of the US Dodd-Frank Act since it is not listed on the US financial market, the Group nevertheless exercises due diligence when it comes to conflict minerals, to meet customer expectations and comply with its commitments.

Thales submits these queries to its supply chain to ensure that the origin of the metals covered by these regulations (tin, tantalum, tungsten and gold) can be verified to the greatest extent possible.

When Thales identifies suppliers likely to supply items containing these metals, the Group checks whether those suppliers have a policy on conflict minerals and/or an appropriate body to respond to questions on the matter.

Performance related to ensuring supplier compliance with corporate responsibility issues (for 2018) (NFPS):

Supplier performance in the domain of corporate responsibility
(average score out of a total of 10): **8.7**
Percentage of class A⁽¹⁾ suppliers assessed in terms of their environmental maturity: **84%**

This performance is fully in line with the multi-year targets set for the upcoming period from 2019 to 2023 that have been finalised in agreement with internal stakeholders.

5

Sustainable procurement: Goals for 2019-2023

2023 target

Percentage of new suppliers committed to the principles of Thales's new Responsible procurement Charter

100%

5.7.3.2 Duty of care plan

France's law No. 2017-399 of 27 March 2017 on the duty of care of parent companies and contracting companies requires the implementation of "reasonable vigilance measures to identify risks and prevent serious violations of Human Rights and fundamental freedoms, the health and safety of persons and the environment resulting from the activities of the company or those of the companies it controls, directly or indirectly, as well as the activities of subcontractors or suppliers with whom the company has an established business relationship, when such activities are related to this relationship".

Article L. 225-104-1 paragraph 4 of the French Commercial Code requires that the requisite vigilance measures be grouped together in a "duty of care" plan that contains the following:

1. a risk mapping to identify, analyse and prioritise risks (see section 5.7.3.2.1).
2. procedures for regular assessment of the situation of subsidiaries, subcontractors or suppliers with whom the company has an established business relationship, in respect of the risk mapping (see section 5.7.3.2.2).
3. appropriate measures to mitigate risks or prevent serious violations (see section 5.7.3.2.2).
4. a mechanism for issuing or collecting alerts on the existence or occurrence of risks, prepared in consultation with the representative trade unions in said company (see section 5.7.3.2.3).
5. a system for monitoring the measures implemented and assessing their effectiveness (see section 5.7.3.2.4).

(1) All suppliers accounting for 80% of purchasing volumes.

In financial year 2018, Thales formed an internal, multidisciplinary working group to define the main components of the duty of care plan, also drawing on the work of trade associations of which it is a member.

5.7.3.2.1 Risk mapping related to the duty of care

An initial version of the mapping makes a distinction between the risks resulting from the activities of Thales and its subsidiaries and those resulting from the activities of the Group's subcontractors and suppliers with whom it has an established business relationship:

1. The part related to the activities of the Group and the companies it controls is based on an internal control questionnaire, the Yearly Attestation Letter (YAL), sent out annually (113 questionnaires sent out during 2017) by the Audit, Risks & Internal Control Department (DARCI) to the Group's operating entities. Responses to the questionnaire are analysed by the network of Risk Advisors and audited on a rolling basis by the DARCI. The analysis performed in 2018 of the responses to the questionnaires sent out at the end of 2017 verified that the policies and bodies in place within the Group to address matters related to the environment, the health and safety of persons, respect for Human Rights and fundamental freedoms would reasonably contain any major risk related to the activities of the operating entities.

The YAL is updated annually.

2. Turning to subcontractors and suppliers with whom the company has an established business relationship, those identified as presenting a risk fulfilled the following combined criteria:
 - a) they belong to one of the 17 purchasing categories selected by Thales as presenting the greatest risks in terms of Human Rights and fundamental freedoms, the health and safety of persons and the environment (installation and construction work, subcontracting of surface treatment, etc.);
 - b) they are located in a country considered to present risks in terms of Human Rights and fundamental freedoms, the health and safety of persons and the environment; a list of countries at risk has been compiled from external sources to allow a rigorous and objective assessment of the countries' policies in this area⁽¹⁾;
 - c) revenues with Thales exceeding certain materiality thresholds.

This approach is designed to divide the Group's top suppliers and subcontractors into three risk categories: low, moderate and substantial.

5.7.3.2.2 Description of the procedure and appropriate actions to mitigate risks or prevent serious harm

The procedures for assessing the business activities of Thales, its subsidiaries and the companies it controls are based on the YAL questionnaires and their subsequent analysis (see section 5.7.3.2.1 above) and on the TIMS maturity assessments (see section 3.4, "Control environment").

With regard to assessment procedures for subcontractors and suppliers, the current plan being rolled out is based on the following:

- a Purchasing and Corporate Responsibility Charter. In 2018, a total of 15,610 suppliers signed the charter, versus 12,700 in 2017 (see section 5.7.3.1.2).

At the end of 2018, Thales launched a project to revise the charter, drawing in particular on the Code of Conduct of the International Forum on Business Ethical Conduct (IFBEC) prepared by the main European and US players in the aerospace and defence sector;

- a more comprehensive supplier risk assessment questionnaire: until 2018, Thales's suppliers completed a self-assessment questionnaire measuring their performance in domains of corporate responsibility (see section 5.7.3.1.2). That questionnaire was updated and expanded in 2018, in conjunction with the International Aerospace Environmental Group and GIFAS. The new version will be rolled out in 2019 to provide a more accurate assessment of the policies and measures implemented by the Group's subcontractors and suppliers in the domains covered by law No. 2017-399 of 27 March 2017 on the duty of care of parent companies and contracting companies;
- supplier site audits carried out by Thales's Procurement Department on quality and technical aspects. These also include some twenty points dealing specifically with HSE issues and the supplier's ability to safeguard the environment, ensure the safety of facilities and persons and manage products responsibly.

At this stage of the implementation of the above-mentioned law, it is expected that:

- **subcontractors and suppliers at low risk** shall not be subject to any specific additional measures (other than signing the charter during the selection phase);
- **subcontractors and suppliers at moderate risk** shall complete the new supplier risk assessment questionnaire;
- **subcontractors and suppliers at substantial risk** may be subject to a specific assessment to remove any doubts about their ability to reduce and manage their risks of serious violations of Human Rights and fundamental freedoms, the health and safety of persons and the environment. Depending on the results of this assessment, the Group then reserves the right either to continue the business relationship without additional measures, or to assist the subcontractor or supplier in implementing a risk mitigation plan, or to terminate the business relationship.

5.7.3.2.3 Mechanism for issuing and dealing with alerts

In 2018, Thales reviewed its internal alert system to bring it into compliance with France's law No. 2016-1691 of 9 December 2016 on transparency, anti-corruption and economic modernisation, and law No. 2017-399 of 27 March 2017 on the duty of care of parent companies and contracting companies.

This process led to the extension and increased security of the alert system so that it could receive all internal or external alerts falling within the scope of these laws. The new alert mechanism was drawn up in consultation with Thales's representative trade unions.

5.7.3.2.4 Procedures for monitoring the measures in the duty of care plan

The measures in the duty of care plan are currently assessed using the following indicators (see sections 5.6.1 and 5.7.3.1.2);

- number of suppliers that have signed the Purchasing and Corporate Responsibility Charter: 15,610 in 2018 (versus 12,700 in 2017);
- overall supplier performance score for 2018 in the domain of corporate responsibility: 8.7 out of 10 in 2018 (versus 8.3 in 2017);
- percentage of class A⁽²⁾ suppliers assessed in terms of their environmental maturity: 84% in 2018 (versus 67% in 2017);
- number of alerts received via the Thales alert system in 2018: 15⁽³⁾ (versus 16 in 2017).

These indicators will be expanded in 2019.

(1) International Trade Union Confederation Global Rights Index 2018, Yale University Environmental Performance Index, 2018 Global Slavery Index and the Human Rights Watch World Report 2018.

(2) All suppliers accounting for 80% of purchasing volume.

(3) Of the 15 alerts received in 2018, 10 were related to labour relations as part of the duty of care employee-related field and one was related to the duty of care environmental field (allegation of noise pollution).

5.7.4 Thales initiatives with charitable organisations

Thales Foundation ("the Foundation") initiatives in 2018

Through its foundation, launched in 2014, Thales is an innovative force for the good of humanity and contributes to a response to the challenges faced by society. To achieve this, the Foundation draws on the commitment of Thales's employees, who can harness their motivation and skills to the benefit of the two overall themes chosen by the Foundation: education and humanitarian aid.

In four years, the Foundation has supported more than 60 projects in some 20 countries around the world, including 15 projects in 2018.

5.7.4.1 Education and training to prepare for tomorrow's challenges

Impacting education through science

In the area of education, the Foundation develops projects relating to science and innovation in teaching methods, prioritising children and their teachers in order to increase students' interest, curiosity, critical thinking and abilities in science. The goal is to give young people a taste for innovation and to make them more agile in an increasingly fast-changing world.

In 2018, the Foundation funded seven innovative educational projects benefiting more than 4,000 pupils and teachers in France, Spain and Cambodia. The main aim of these projects is to introduce children to computer programming, robotics and careers in science, and give them the opportunity to interact with engineers. These educational projects connect disadvantaged young people with learning by taking a more fun, interactive and collaborative approach.

A CLOSER LOOK AT TWO EDUCATIONAL PROJECTS

Les Savanturiers du Numérique et des Technologies (Scholars of Technology and Digital Technology): learning through research

Supported by the Foundation since 2015, the programme is based on research methods and ethics used as a model for collaborative and ambitious learning sponsored by engineers and researchers.

In 3 years, 60 Thales employees helped teachers and their pupils design and produce a technical project of their choice in class. Altogether, 98 classes from preschool to secondary school have benefited from this innovative educational project, representing 2,300 children and 103 teachers in 17 regions in France, Belgium and the UK.

Somos Científicos: an interactive exchange platform to connect young people with scientists

Sponsored by a Group employee, this project aims to encourage children to aspire to careers in science and technology by enabling them to chat online with engineers. This assuages the fears and preconceptions often associated with careers in science, making such careers more accessible and exciting to the children. On one of the platform's dedicated sections, 431 students from 15 schools in Spain and Latin America (Argentina, Colombia and Ecuador) have had the opportunity to chat with seven engineers from Thales.

Training to reduce the impact of climate-related disasters

The Foundation is also involved in projects aimed at anticipating and reducing the impact of natural and environmental disasters. Through these initiatives, the Foundation helps to mitigate the vulnerability of populations located in risk areas by supporting climate risk prevention and preparedness amongst local populations and field mission programmes.

In 2018, two projects educated more than 1,200 young people about the risks of earthquakes or environmental damage in Nepal and India. The idea is to prepare local populations for crises so that they can respond more quickly and limit the involvement of international humanitarian teams.

A CLOSER LOOK AT HUMANITARIAN INITIATIVES

Disaster resilience training in Nepal

In 2018 the British charity Rescue Global received funding from the Foundation to develop a disaster preparedness programme for school children and scouts, aged between 8 and 16, in the event they are affected by a natural disaster. The lessons, translated and delivered by a local partner, the Himalayan Rescue Association Nepal, taught more than 200 children from Kathmandu and surrounding areas how to prepare a survival kit, build a shelter and prevent the spread of infection, among other disaster-preparedness topics.

5.7.4.2 Employees stepping up to tackle the challenges facing society

Employees volunteering with charities

Employee commitment is key to the Foundation's mission. Group employees can contribute in a variety of ways to the Foundation's initiatives. For example, they can submit a charitable project to the annual call for projects or volunteer for a particular project or collective effort organised in aid of a cause or charity.

Since 2015, a total of 41 sponsors, including seven in 2018, have provided support or quality monitoring to winning projects funded by the Foundation. In four years, 300 volunteer assignments have been undertaken by Thales employees, who have contributed their skills to Foundation initiatives.

Collective generosity thanks to rounding off pay

Launched in May 2016, the "round off your pay" initiative, designed by the social outreach company microDON, allows every Thales employee in France to support a charitable project by donating the cents from their pay every month, with an optional additional donation of up to €10 per month. The full employee donation is paid to the charities, after being matched by Thales.

In 2018, this innovative outreach tool was used by 4,086 employee micro-donors within the Group's French companies, raising over €287,000 for six charities.

The Foundation commits to promoting and monitoring each project to help it achieve its funding objectives. The results obtained in 2018 through this fund-raising were substantial:

- 23,145 school kits, manufactured locally, were distributed to 159 schools by *Planète Urgence* in Benin, Cameroon, Togo and Madagascar, three times more than in 2015. 434 pieces of equipment and 128 solar lamps were also provided to schools;
- 450 primary and secondary school children, 52% of them girls, benefited from academic support classes at the school in Phnom Penh run by the charity For a Child's Smile, which fights against school drop-out in Cambodia;
- 2,300 teachers and carers in France have been trained in the use of digital tools developed by *Le Cartable Fantastique* to promote the inclusion in school of children with DCD (developmental coordination disorder);
- 17,000 people and 45 humanitarian organisations were able to communicate and coordinate with one another following the typhoons and earthquakes in the Philippines and Indonesia, thanks to *Télécoms Sans Frontières* technologies;
- 11,565 pupils and educators received responsible citizenship training in 22 schools in France, Benin, Senegal and Togo, through an interactive platform and international solidarity microprojects developed by *Aide et Action*;
- 4 "Ideas Boxes" (mobile pop-up multimedia centres) from Libraries Without Borders provided free access to educational and digital content to 6,000 beneficiaries and mediators in priority districts in the Hauts-de-France region.

5.7.4.3 Other examples of local engagement initiatives outside France

Companies in the Group also help local or national charities by providing financial or equipment support and asking employees to volunteer their time for charitable initiatives. Several projects are boosting Thales's contribution to education in science, technology, engineering and mathematics⁽¹⁾, while multiple employee initiatives are being carried out in the health sector.

In English-speaking countries: Australia, Canada, United States and United Kingdom

In Australia, Thales continues its partnership with the Commonwealth Scientific and Industrial Research Organisation (CSIRO), which aims to promote the openness of young people to science and technology. Classroom activities encourage pupils aged between 7 and 17 to develop scientific thinking, carry out investigative work and communicate effectively. Thanks to Thales's involvement, they gain a better understanding of the industrial world and of the importance of science and technology.

A three-year strategic partnership has been signed with the Australian Kookaburra Kids Foundation, which offers educational and recreational activities to more than 2,500 children living in families affected by mental illness.

Thales has also been involved for more than 10 years in Legacy, the main charity providing services to Australian families suffering after the injury or death of a spouse or parent, during their defence force service.

Some one hundred employees **in Canada** have rallied around charity races and fundraising campaigns benefiting armed forces support organisations, a programme for the early detection of autism, and the Montreal Clinical Research Institute (IRCM), a non-profit organisation that among other things provides training to high-level young scientists.

In the United States, Thales supports the innovative Iridescent Technovation Challenge programme, an international competition for girls aged between 10 and 18 designed to develop their skills in innovation and leadership. Supported by mentors, the teams learn to write code and design mobile apps to solve a problem in their community. A total of 150 people, 80 of them girls, took part in the final session at Thales's premises in Irvine.

Almost 600 employees from Thales's sites around the United States also took part in more than a dozen local initiatives. The funds they raised paid for clothing and books for children's literacy (Project Night Night), the provision of interview clothing and support for veterans trying to rejoin the workplace (Working Wardrobe), and food for people in need (Second Harvest Food Bank).

Thales's aim **in the United Kingdom** is to inspire, inform and involve young people through initiatives aimed at giving them the necessary skills and knowledge to make an informed decision as to their personal and professional choices.

In 2018, Thales worked with more than 45 schools and colleges to organise activities to meet their needs, and in support of young people within its local communities. As a partner of the Primary Engineers programme, Thales has supported teacher training for the introduction of scientific projects into primary schools. Thales also participated in two Big Bang Fairs, a major national science and engineering awareness event attended by 79,000 young people, in Birmingham and southern England.

Through a partnership with the UK organisation of voluntary scientific ambassadors (STEM volunteers), Thales rallied and trained more than 250 employees to promote opportunities in science and technology in the United Kingdom.

In Asia: China, India and Singapore

In China, under a partnership with the Shanghai Cedar Charity Foundation, 25 students from remote or disadvantaged areas were given support for their personal and professional development through workshops and visits organised at Thales.

Thales now supports the Village Early Education Center programme led by the China Development Research Foundation (CDRF) which aims to offer access to preschool education to children living in poor, remote villages. This ambitious 42-week programme allows children to build on their language skills and emotional development and be better prepared for school. Since 2009, CDRF has set up 2,300 pre-school garden centres in nine provinces in central and western China, benefiting 170,000 children. In 2018, Thales's support funded 10 centres for 200 children from Jinhe county in Guizhou province.

Some 30 Thales employees **in India** took part in campaigns to donate clothing and accessories for around 100 elderly people in need, in partnership with the charities Nightingale Medical Trust and Goonj.

(1) "STEM education" in English-speaking countries.

Thales in **Singapore** renewed its partnership with *Passerelles numériques*, an organisation which helps underprivileged young people in Cambodia, the Philippines and Vietnam to access a qualified job in the new technology segment. Through this partnership, Thales funded the education of 20 students for two years until they achieved their IT diploma, in addition to outreach leave assignments for employees wishing to offer their skills to the organisation.

In Europe: Germany, Spain, Italy, the Netherlands

Thales employees were involved in more than a dozen local outreach initiatives, raising money for charitable organisations working in the healthcare sector for people affected by serious diseases such as cancer, leukaemia, cystic fibrosis and multiple sclerosis, or collecting items and food for people in need.

5.7.5 Other Group community initiatives

The Group's strong commitments, formalised in its Code of Ethics, attest to its desire to act responsibly. Certain initiatives undertaken by Thales in connection with its corporate responsibility policy target stakeholders other than its own employees.

The Group's regional policies in France

Thales's regional policies involve the company in local economic and community life, benefiting all concerned. The Group's regional policy relies on the quality of its relations with economic, social and academic players and local institutions and communities.

The policy is based on knowledge of each of Thales's local labour pools and the key players. It has three priority areas of focus:

- skills maintenance and development;
- integration of young people into the workplace, education and training;
- co-development of the industrial fabric and open innovation.

The Group agreement to promote professional development and employment through proactive initiatives signed on 26 April 2013 actively supports local action by creating a Commission on regionalism and relying on a Group Anticipation representative, as part of a joint organisation, to coordinate the Thales Regionalism community and monitor regional action.

In France, Thales has thus created nine labour pools in order to better coordinate its action. In each labour pool, regional initiatives are coordinated by a facilitator.

The *Territorialité – Mode d'Emploi* brochure, published in 2018 for all Thales employees in France, describes clearly and illustratively the Group's approach to regionalism, which falls within its CSR policy.

Thales in France also makes use of a dedicated local economic development company, *Géris Consultants*, which, in collaboration with the Anticipation representative, assists with the roll-out of the Group agreement, specifically by providing institutional and economic advice, leading the network of 10 Thales "Engineers for Schools" at education authorities in the Group's host cities, and helping Group employees take over or start a business (70 new projects in 2018).

Géris Consultants also conducts HR engineering experiments to develop the performance and skills of Thales's suppliers and more generally of SMEs/SMLs in its labour pools, to support the professional development of employees from large companies, and to facilitate the integration of young people into the local industrial fabric.

The *Pass'Compétences* initiative is designed to stimulate SME development by assigning them voluntary expert employees from large companies (Thales, Nokia, Schneider Electric, etc.) for pivotal assignments lasting between 12 and 18 months. Forty employees have been made available for this initiative since 2012.

In 2018, there were 4 new placements involving Thales employees.

In addition, *Géris Consultants*, in partnership with Thales's HR teams, supports the professional integration of work-study employees:

- by promoting the "Shared Learning Path" initiative;
- by inviting SMEs with open positions (13 SMEs who were asked to do so submitted more than 69 job offers in 2018) to Thales's annual forum for Top Interns and Work-Study Employees;
- by organising Thales's participation in the *Altern'Up* competition, held under the aegis of the French innovations for learning foundation, FIPA.

Géris Consultants also shares its expertise with large companies and local authorities in order to provide assistance, in the form of advice and innovative financial engineering, to SMEs and SMLs that create long-term positions in regions impacted by the loss of industrial jobs. The revitalisation projects led by *Géris Consultants* since 2009 have led to the creation of more than 5,000 jobs in France (including 247 in 2018) with approximately 800 SMEs and SMLs.

Group initiatives to support people with disabilities

In France in 2018, the Group continued its partnerships for the training and guidance of young people with disabilities, with highlights including:

- the strengthening or renewal of agreements with the universities of Orléans, Tours, Rennes, Lille, IDF university communities, Pierre and Marie Curie Université (UPMC Paris), Nice Sophia-Antipolis (UNICE), Bordeaux 1, Toulouse University, and universities of Western Brittany (UBO Brest);
- in line with the many existing agreements already signed with education authorities designed to help secondary school pupils with disabilities to access higher education and monitor students with disabilities, work is ongoing to establish agreements with the educational authorities of Aix-Marseille and Brittany. These agreements cover almost all the local employment areas where Thales is present;
- the partnership with Paris-Est Créteil University to set up an inter-university diploma (IUD) in disability representation in the public or private sector continued. A total of 21 students attended this training in 2018;
- Thales also supports the professional integration of young people with Asperger's through the national Aspie Friendly agreement signed in 2018 with a group of universities;
- since 2018, Thales has chaired the Hanvol non-profit organisation, whose mission is to find jobs for people with disabilities in the field of aeronautics;

- the Group also continued its involvement in the agreements to implement software architecture and information system engineering courses at Vocational Rehabilitation Centres (CRP) in Millau and Mulhouse. In 2018 it strengthened its partnership with Fagerh (the French Federation of Rehabilitation Centres for People with Disabilities) with a national agreement to support the development of vocational rehabilitation centres in its local employment areas.

Thales has also participated in innovative projects based on technologies developed within the Group to provide practical assistance to people with disabilities, such as the EYESchool system, which enables visually impaired young people to capture on their computers what the teacher writes on the board and to have documents distributed in class synthesised from text to speech. In line with the assessment report by France's Education Ministry in 2015 encouraging the expansion of the scheme in schools and universities, Thales continued its action in this area by assisting visually-impaired school and university students.

The Group's expertise and commitment with regard to disabled employment have been widely recognised, as evidenced by the 2016 appointment of Thales's Mission Insertion Director to the French national consultation committee for people with disabilities (*Conseil National Consultatif des Personnes Handicapées – CNCPH*) and the national committee for the fund for disabled employment in the public sector (*Comité National du Fonds pour l'Insertion des Personnes Handicapées dans la Fonction Publique – FIPHFP*) in his capacity as an expert.

5.8 REPORT BY THE INDEPENDENT THIRD PARTY, ON THE NON-FINANCIAL STATEMENT INCLUDED IN THE GROUP MANAGEMENT REPORT

This is a free translation into English of the independent third party's report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the shareholders,

In our capacity as Statutory auditor of your Company, appointed as an independent third party and accredited by COFRAC under number 3-1058 (whose scope is available at www.cofrac.fr), we hereby report to you on the non-financial statement for the year ended 31 December 2018 (hereinafter "the Statement"), included in the management report pursuant to the legal and regulatory provisions of articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code de commerce*).

The entity's responsibility

Pursuant to legal and regulatory requirements, the Board of Directors is responsible for preparing the Statement, including a presentation of the business model, a description of the principal nonfinancial risks, a presentation of the policies implemented considering those risks and the outcomes of said policies, including key performance indicators.

The Statement has been prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), the main elements of which are presented in the Statement (which are available on request from the entity's head office).

Independence and quality control

Our independence is defined by the provisions of Article L. 822-11-3 of the French Commercial Code and the French Code of Ethics (*Code de déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements, French professional guidance and applicable legal and regulatory requirements.

Responsibility of the Statutory Auditor, appointed as an independent third party verifier

On the basis of our work, our responsibility is to provide a report expressing a limited assurance conclusion on:

- the compliance of the Statement with the provisions of Article R. 225-105 of the French Commercial Code;
- the fairness of the information provided in accordance with Article R. 225-105 I, 3° and II of the French Commercial Code, i.e., the outcomes, including key performance indicators, and the measures implemented considering the principal risks (hereinafter the "Information").

However, it is not our responsibility to comment on:

- the entity's compliance with other applicable legal and regulatory provisions, in particular the French duty of care law and anti-corruption and tax evasion legislation;
- the compliance of products and services with the applicable regulations.

Nature and scope of our work

The work described below was performed in accordance with the provisions of articles A. 225-1 *et seq.* of the French Commercial Code determining the conditions in which the independent third party performs its engagement and with the professional guidance of the French Institute of statutory auditors ("CNCC") applicable to such engagements, as well as with ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.

Our procedures allowed us to assess the compliance of the Statement with regulatory provisions and the fairness of the Information:

- we obtained an understanding of all the consolidated entities' activities, the description of the social and environmental risks associated with their activities and, where applicable, the impact of this activity on compliance with Human Rights and anticorruption and tax evasion legislation, as well as the resulting policies and their outcomes;
- we assessed the suitability of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, where appropriate;
- we verified that the Statement includes each category of social and environmental information set out in Article L. 225-102-1: as well as information regarding compliance with Human Rights and anticorruption and tax evasion legislation;
- we verified that the Statement includes an explanation for the absence of the information required under Article L. 225-102-1 III, 2;
- we verified that the Statement presents the business model and the principal risks associated with all the consolidated entities' activities, including where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes there of, including key performance indicators;
- we verified, where relevant with respect to the principal risks or the policies presented, that the Statement provides the information required under Article R. 225-105 II;
- we assessed the process used to identify and confirm the principal risks;
- we asked what internal control and risk management procedures the entity has put in place;
- we assessed the consistency of the outcomes and the key performance indicators used with respect to the principal risks and the policies presented;
- we verified that the Statement covers the scope of consolidation, i.e. all the companies included in the scope of consolidation in accordance with Article L. 233-16 within the limitations set out in the Statement;

- we assessed the data collection process implemented by the entity to ensure the completeness and fairness of the Information;
- for the key performance indicators and other quantitative outcomes⁽¹⁾ that we considered to be the most important, we implemented:
 - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data,
 - substantive tests, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities⁽²⁾ and covers between 15% and 100% of the consolidated data relating to the key performance indicators and outcomes selected for these tests;
- we referred to documentary sources and conducted interviews to corroborate the qualitative information (measures and outcomes) that we considered to be the most important⁽³⁾;
- we assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.

We believe that the work carried out, based on our professional judgement, is sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our work was carried out by a team of 12 people, during 14 weeks between October 2018 and February 2019.

We were assisted in our work by our specialists in sustainable development and corporate social responsibility. We conducted around 10 interviews with the people responsible for preparing the Statement, representing the Secretary General, investments and finance Directions, Risk Direction, Compliance, Law/Human Resources, Health Safety and Environment Direction, and purchasing Departments.

Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the non-financial statement is not in accordance with the applicable regulatory provisions and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

Paris-La Défense, 25 february 2019

The Independent Third-Party

Mazars SAS

Grégory Derouet
Partner

Edwige Rey
CSR & Sustainable development Partner

(1) **HR information:** Frequency rate of work accidents; Absenteeism rate; Percentage of departure by resignation; Percentage of woman in hirings; Percentage of woman with high responsibility position; Percentage of trained employees.

(2) **Environmental information:** Energy consumptions; Variation in energy consumptions; GHG (greenhouse gas) emissions: GHG emissions from energy consumption (tCO₂), GHG emissions from substances (tCO₂), GHG emissions from transportation (business travels – tCO₂); Industrial Wastewater Discharges, Common waste production (excluding exceptional items), hazardous waste production (excluding exceptional items), common waste recovery (%), hazardous waste recovery (%); Variation in recycled common waste (excluding exceptional items); Percentage of employees working on ISO 14001 certified site.

Social information: Number of alerts related to corruption issues; Number of trained employees to policies and procedures in the fight against corruption; Suppliers who signed the "Charte Achats et Responsabilité d'Entreprise".

HR information: Legal entities of Thales France and Thales Singapour.

Environmental information: Thales Alenia Space UK – Bristol, Thales Alenia Space – Toulouse, Thales Air Operations Weapons – Belfast, Thales Defense Mission Systems – Elancourt, Thales TDA Armements – La Ferté, Thales Land Australia – Mulwala.

Social information: Legal Department; Human Resources Department; Ethics and Corporate Responsibility Department.

(3) **HR information:** Number of women in Executive Committees (CODIR).

Environmental information: Industrial processes to replace chromates in its applications, Environmental impact assessment of the solutions, ISO 14001 certified sites, Development of tools about the eco-design awareness program.

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COMPANY AND SHARE CAPITAL



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6.1 GENERAL INFORMATION ABOUT THE COMPANY

Company name

Thales

Legal structure

Thales is a public limited company with a Board of Directors. It is governed by French law, particularly the French Commercial Code and certain provisions of the amended law on privatisation of 6 August 1986, since the French State owns more than 20% of the share capital.

Registered office

Tour Carpe Diem – Place des Corolles – Esplanade Nord – 92400 Courbevoie – France. Telephone: +33 (0)1 57 77 80 00.

Registration

No. 552 059 024 in the Nanterre Register of Trade and Companies; APE business identifier code: 7010 Z. Legal Entity Identifier (LEI): 529900FNDVTQJOWPZ19.

Term

Initially incorporated on 11 February 1918 for 99 years, the Company's term was extended by the Annual General Meeting of 24 May 2013. The expiry date is now set at 23 May 2112.

Corporate purpose

The corporate purpose is, directly or indirectly, in all countries:

1. the design, construction, installation, maintenance, operation, manufacture, purchase, sale, exchange, supply or hire of all equipment, tools, stations, appliances, finished or semi-finished products, materials, substances, components, systems, devices, processes and, in general, all products relating to electronic applications in any domain.
For this purpose, the registration, purchase, sale, exchange, supply, concession or use of all business and manufacturing patents, licences and trademarks;
2. the research, obtaining, acquisition, disposal, exchange, supply, hire or use of all concessions or undertakings, whether private or public, training of staff, and the provision of all services pertaining thereto;
3. the formation of any company or association, or investment in any form whatsoever in any company or undertaking, having a similar or related purpose to that of the Company;
4. and in general, all commercial, industrial, financial and movable or immovable property transactions that relate directly or indirectly to the aforementioned activities.

Financial year

The Company's financial year covers a period of 12 calendar months from 1 January to 31 December.

Corporate documents and information about the Company can be consulted at the Group Secretary and General Counsel's office at the Company's registered office.

Distribution of profits as per the articles of association

Profits are distributed in compliance with current legislation. Under the Articles of Association, the Annual General Meeting called to approve the financial statements for the previous financial year is empowered to grant each shareholder the option to receive payment of all or part of the dividend distributed either in cash or in shares.

Notifications concerning the crossing of statutory thresholds

Any natural person or legal entity owning a number of shares equal to or exceeding 1% of the share capital (but not voting rights), or any multiple thereof, is required to inform the Company of the total number of shares held within five trading days of the date on which this threshold is exceeded.

This obligation to inform the Company applies, under the same conditions, when the number of shares held falls below one of the thresholds mentioned in the previous paragraph.

In the event of failure to comply with this obligation, the shareholder shall be deprived of the voting rights attached to any shares exceeding the first undeclared threshold, subject to the conditions and limitations defined by law.

As part of its regulated information, every month, the Company publishes on its website the number of shares comprising the capital and the total number of voting rights attached – based on all threshold excesses (statutory and legal).

Annual General Meeting: notice of meetings and conditions for attendance, double voting rights and exercise of voting rights

Information on these sections can be found in Chapter 4, Governance and compensation, section 4.2.7.

6.2 SHARE CAPITAL AND SHAREHOLDERS

6.2.1 Information on the distribution of capital issued

At 31 December 2018, the share capital stood at €639,312,243, divided into 213,104,081 shares with a par value of €3 each.

Pursuant to the applicable regulations, each month the Company publishes on its website (www.thalesgroup.com), under "Investor/Publications/Regulated Information", the information pertaining to the total number of voting rights (theoretical and exercisable) and the number of shares making up the share capital, and forwards this information to the news distribution service.

Changes in share capital and shareholders' rights are governed by the applicable laws.

Shares in the Company may be held in either registered or bearer form, at the shareholder's discretion. The share register is kept on behalf of the Company by Société Générale (Securities Services – 32, rue du Champ-de-Tir – BP 81236 - 44312 Nantes CEDEX – France).

The share capital is fully paid up. It includes a golden share resulting from the conversion of an ordinary share belonging to the French State, as decided by decree No. 97-190 of 4 March 1997, implementing the law on privatisation of 6 August 1986 (see page 159).

6.2.1.1 Changes in the share capital over the last five financial years

Date	Type of transaction	Acquisition, issue and merger premiums (€)	Number of shares created	Nominal amount of the changes in capital	Amount of share capital (€)	Aggregate number of shares making up the capital (€)
31 December 2013		3,826,563,428			617,233,500	205,744,500
Financial year 2014	Exercise of stock subscription options	63,313,408	2,096,611	6,289,833		
31 December 2014		3,889,876,836			623,523,333	207,841,111
Financial year 2015	Exercise of stock subscription options	105,567,702	3,120,293	9,360,879		
31 December 2015		3,995,444,538			632,884,212	210,961,404
Financial year 2016	Exercise of stock subscription options	41,484,459	1,233,362	3,700,086		
31 December 2016		4,036,928,997			636,584,298	212,194,766
Financial year 2017	Exercise of stock subscription options	16,276,572	463,959	1,391,877		
31 December 2017		4,053,205,569			637,976,175	212,658,725
Financial year 2018	Exercise of stock subscription options	14,940,842	445,356	1,336,068		
31 DECEMBER 2018		4,068,146,411			639,312,243	213,104,081

6.2.1.2 Changes in the distribution of capital and voting rights over the last three financial years

At 31 December 2018, the total number of exercisable voting rights was 306,516,976. This includes double voting rights attached to shares that have been registered for at least two years under the conditions set out in the Articles of Association (see section 4.2.7).

As previously mentioned, the number of shares and voting rights (theoretical and exercisable) is published monthly on the Company's website (www.thalesgroup.com, under "Investor/Publications/Regulated information").

	31 December 2018			31 December 2017			31 December 2016		
	Number of shares	% of share capital	% of voting rights	Number of shares	% of share capital	% of voting rights	Number of shares	% of share capital	% of voting rights
TSA ^(a)	54,786,654	25.71%	35.68%	54,786,654	25.76%	35.75%	54,786,654	25.82%	35.86%
French State (including 1 golden share)	2,060	—	—	2,060	—	—	2,060	—	—
Public Sector ^(a)	54,788,714	25.71%	35.68%	54,788,714	25.76%	35.75%	54,788,714	25.82%	35.86%
Dassault Aviation ^(b)	52,531,431	24.65%	28.39%	52,531,431	24.70%	28.44%	52,531,431	24.76%	28.53%
Thales	648,295	0.30%	—	568,739	0.27%	—	749,559	0.35%	—
Employees	5,575,167	2.62%	3.37%	6,181,444	2.91%	3.50%	5,743,081	2.71%	3.31%
Other shareholders	99,560,474	46.72%	32.56%	98,588,397	46.36%	32.31%	98,381,981	46.36%	32.30%
TOTAL	213,104,081	100%	100%	212,658,725	100%	100%	212,194,766	100%	100%

(a) Under the terms of the shareholders' agreement with Dassault Aviation (the "Industrial Partner", see AMF 27-11-2008), the "Public Sector" is represented by TSA, excluding the State directly. All Thales shares held directly and indirectly by the French State have been in directly registered form for more than two years and thus have a double voting right on 31 December 2018.

(b) As at 31 December 2018, Dassault Aviation held 42,154,349 shares in directly registered form, including 34,654,349 for more than two years, thus granting it double voting rights, and also held 10,377,082 shares in bearer form.

6.2.1.3 Major changes in share ownership over the last five years

During 2014, the number of treasury shares was reduced due to the following transactions:

- 2,146,816 shares were purchased under a liquidity contract;
- 2,216,116 shares were sold under a liquidity contract;
- 544,145 shares were assigned as free shares;

Treasury shares thus represented 0.9% of the capital, i.e. 1,876,732 shares, at 31 December 2014.

During 2015, the number of treasury shares was reduced due to the following transactions:

- 807,144 shares were purchased under a liquidity contract;
- 822,144 shares were sold under a liquidity contract;
- 535,532 shares were assigned as free shares;
- 29,350 shares were assigned under an allocation of stock options;
- 457,596 shares were sold to employees as part of the 2015 employee shareholding scheme.

Treasury shares thus represented 0.4% of the capital, i.e. 839,254 shares, at 31 December 2015.

During 2016, the number of treasury shares was reduced due to the following transactions:

- 575,000 shares were purchased on the market;
- 513,001 shares were purchased under a liquidity contract;
- 472,001 shares were sold under a liquidity contract;
- 607,381 shares were assigned as free shares;
- 56,600 shares were assigned under an allocation of stock options;
- 41,714 shares were sold to employees as part of the 2015 employee shareholding scheme.

Treasury shares thus represented 0.35% of the capital, i.e. 749,559 shares, at 31 December 2016.

During 2017, the number of treasury shares was reduced due to the following transactions:

- 852,000 shares were purchased on the market;
- 819,512 shares were purchased under a liquidity contract;
- 743,512 shares were sold under a liquidity contract;
- 606,653 shares were assigned as free shares;
- 40,000 shares were assigned under an allocation of stock options;
- 462,167 shares were sold to employees as part of the 2017 employee shareholding scheme.

Treasury shares thus represented 0.27% of the capital, i.e. 568,739 shares, at 31 December 2017.

During 2018, the number of treasury shares increased due to the following transactions:

- 220,000 shares were purchased on the market;
- 838,402 shares were purchased under a liquidity contract;
- 702,128 shares were sold under a liquidity contract;
- 238,750 shares were assigned as free shares;
- 850 shares were assigned under an allocation of stock options;
- 37,118 shares were sold to employees as part of the balance of the 2017 employee shareholding scheme.

Treasury shares thus represented 0.30% of the capital, i.e. 648,295 shares, at 31 December 2018.

6.2.2 Potential capital

6.2.2.1 Maximum potential capital at 31 December 2018

	In number of shares with par value of €3
Share capital at 31/12/2018	213,104,081
Current stock option plans	309,738
Of which 25 June 2009 plan: 187,634 options at €32.88	
Of which 23 September 2010 plan: 48,050 options at €26.34	
Of which 15 September 2011 plan: 74,054 options at €26.34	
Maximum potential capital (+ 0.15%)	213,413,819

6.2.2.2 Outstanding securities giving access to share capital (bonds, warrants and options)

At 31 December 2018, excluding the exercise of stock options, if any, there were no other outstanding securities giving immediate or future access to the share capital.

For convenience, even though they have no impact on the potential capital since they involve existing shares, share purchase options have been presented with stock subscription options in Note 15 to the financial statements of the parent company.

Share purchase and stock subscription options

At 31 December 2018, a total of 309,738 stock subscription options were outstanding at a weighted average exercise price of €30.30, of which 122,104 are subject to performance conditions.

All share purchase option plans have reached maturity.

Thales decided to stop granting options in 2012.

➤ SHARE SUBSCRIPTION OPTIONS

Date of Board decision	15/09/2011	23/09/2010	25/06/2009
Discount at grant	Nil	Nil	Nil
Performance conditions	Yes	Yes	No
Exercise period ^(a)	from 15/09/2015 to 14/09/2021	from 23/09/2014 to 22/09/2020	from 25/06/2013 to 24/06/2019
Exercise price	€26.34	€26.34	€32.88
NUMBER OF OPTIONS OUTSTANDING AT 31/12/2018, NET OF OPTIONS CANCELLED^(b) AND EXERCISED	74,054	48,050	187,634
Of which exercisable options at 31/12/2018	74,054	48,050	187,634
Of which outstanding options at 31/12/2018 held by:			
• the Chairman & Chief Executive Officer, Patrice Caine ^(c)	1,538	1,900	—
• the other members of the Executive Committee	1,538	—	—
NUMBER OF BENEFICIARIES OF OUTSTANDING OPTIONS	31	20	186
Of whom members of the Executive Committee (excluding the Chairman & Chief Executive Officer) at 31/12/2018	1	—	—
Total grant to top ten beneficiaries (at plan date)	124,000	161,500	222,000

(a) Applicable to France for plans awarded prior to 2009 and to all countries since 2010.

(b) Primarily because of the termination of the employment contract between the beneficiary and the Group since the grant date or because of cancellation related to partial or complete failure to achieve the performance conditions.

(c) Grant prior to his appointment as Chief Executive Officer.

Conditions of exercise

All Thales share purchase and subscription options are granted for a 10-year period, at no discount to the market price.

Share subscription options may be exercised in full.

The options granted on 15 September 2011 were contingent upon the achievement of internal performance conditions over the three financial

years following their grant date. The three criteria used were EBIT, operating cash flow and order intake, with these criteria having a weighting of 60%, 25% and 15% respectively.

The rights were validated in one-third tranches at the Board of Directors' meetings to close the accounts for the three financial years concerned, resulting in the validation of 80.90% of the options granted.

➤ RECAP ON PERFORMANCE CONDITIONS FOR EXISTING PLANS

Option plans subject to performance conditions	Validation of the 1st tier of the award		Validation of the 2nd tier of the award		Validation of the 3rd tier of the award	
	Reference year	% achievement of performance conditions	Reference year	% achievement of performance conditions	Reference year	% achievement of performance conditions
23 September 2010	2011	100%	2012	100%	2013	100%
15 September 2011	2012	100%	2013	100%	2014	42.71%

➤ OPTIONS GRANTED AND EXERCISED IN 2018

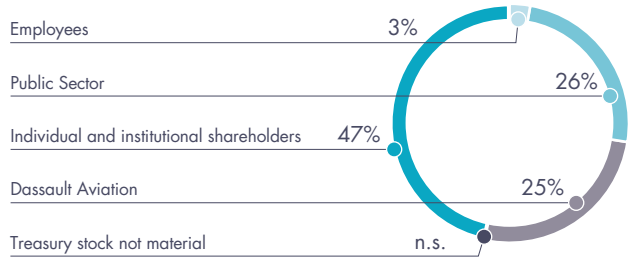
	Number of options granted/shares subscribed or purchased	Exercise price	Maturity date	Date of plan
1. Directors				
Options granted in 2018	None			
Of which Patrice Caine	None			
2. The ten biggest option awards granted to employees				
Options granted in 2018	None			
3. The ten biggest exercises of options by employees^(a)				
Options exercised in 2018	4,000	€38.50	–	01/07/2008
	3,500	€38.50	–	01/07/2008
	3,500	€38.50	–	01/07/2008
	3,500	€38.50	–	01/07/2008
	3,250	€38.50	–	01/07/2008
	3,100	€32.88	–	25/06/2009
	3,000	€26.34	–	23/09/2010
	3,000	€32.88	–	25/06/2009
	3,000	€38.50	–	01/07/2008
	2,814	€38.50	–	01/07/2008

(a) All Group companies combined.

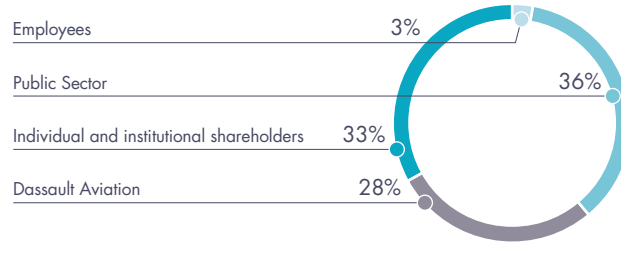
6.2.3 Shareholders

6.2.3.1 Breakdown at 31 December 2018

Breakdown of shareholders



Breakdown of exercisable voting rights



6.2.3.2 Shareholders acting in concert

6.2.3.2.1 "Public Sector" (TSA)

TSA is a holding company wholly owned at 31 December 2018 by EPIC Bpifrance with the exception of one preferred share, kept by the French State. TSA directly holds 54,786,654 Thales shares.

The French State directly holds 2,060 shares, including a golden share, which gives it the principal rights⁽¹⁾ described in section 6.2.3.3.5.

6.2.3.2.2 "Industrial Partner" (Dassault Aviation)

Dassault Aviation, whose shares are listed on the Euronext Paris market, is a public limited company that owns 24.65% of Thales' share capital, i.e. 52,531,431 Thales shares at 31 December 2018.

Dassault Aviation is controlled by Groupe Industriel Marcel Dassault (GIMD) which at 31 December 2018 held 62.24% of the share capital and 76.78% of the exercisable voting rights of Dassault Aviation.

6.2.3.3 Shareholders' agreement, agreement on the protection of strategic national interests, specific agreement and golden share

By signing an "endorsement agreement" with the French State and Alcatel-Lucent in 2009, Dassault Aviation assumed the rights and obligations of Alcatel-Lucent, subject to certain amendments, endorsing the agreements signed on 28 December 2006 – namely the shareholders' agreement and the agreement on the protection of strategic national interests in Thales⁽²⁾.

6.2.3.3.1 Shareholders' agreement between the "Public Sector" and the "Industrial Partner"

On 28 December 2006, TSA and Alcatel-Lucent signed a shareholders' agreement that governs relations between the Public Sector and the Industrial Partner within Thales. This agreement came into effect on the date of transfer of assets from Alcatel-Lucent Participations (5 January 2007).

The agreement was signed pursuant to the cooperation agreement entered into on 1 December 2006 between Thales, Alcatel-Lucent and TSA, which replaced the previous cooperation agreement signed on 18 November 1999 by Alcatel, Thales and GIMD⁽³⁾. This agreement essentially adopted the provisions of the shareholder agreement entered into on 14 April 1998, which it replaced⁽⁴⁾.

On 19 May 2009, when Dassault Aviation acquired the Thales shares previously owned by Alcatel-Lucent, an agreement took effect under which

Dassault Aviation endorsed the shareholders' agreement existing between Alcatel-Lucent and the Public Sector, subject to amendments. The agreement under which TSA and Dassault Aviation act in concert with regard to Thales under Article L. 233-10 of the French Commercial Code, as TSA has a majority within the concert, sets out the following provisions⁽⁵⁾:

Members of the executive bodies of Thales

Thales's Board of Directors, which has 16 members, has to adhere to the following breakdown at 31 December 2018:

- 5 members proposed by the Public Sector;
- 4 members proposed by Dassault Aviation;
- 2 employee representatives;
- 1 representative of employee shareholders;
- 4 external individuals, selected jointly by the Public Sector and Dassault Aviation.

The number of directors appointed upon the proposal of Dassault Aviation may not be higher than the number of directors appointed upon the proposal of the Public Sector. The number of Directors for each will be at least equal to the greater of the following two numbers: (i) the number of directors other than the employee representatives and external individuals, multiplied by the percentage of Thales shares held by Dassault Aviation, compared to the amount of Public Sector and Dassault Aviation holdings and (ii) the number of directors representing employees.

Should Dassault Aviation's shareholding exceed that of the Public Sector, the parties to the agreement will increase the total number of Thales directors from 16 to 17, so as to be represented by five directors each.

The Chairman and CEO is chosen on the joint proposal of the parties.

Furthermore, the parties have agreed that, in the event of a change of Chairman and CEO in accordance with the terms of the shareholders' agreement, they do not intend to propose as a candidate any employee, manager or senior executive belonging to the Dassault group or having recently left this group.

Finally, it is specified that at least one director representing each of the parties must sit on each of the committees of the Thales Board of Directors.

Decisions to be submitted to the Thales Board of Directors

The parties undertake to submit for mandatory approval by the majority of the Directors representing Dassault Aviation, decisions of the Thales Board of Directors relating in particular to the appointment and dismissal of the Chairman and CEO, the adoption of the annual budget and the multi-year strategic plan, and significant acquisitions and disposals of shareholdings or assets (in excess of €150 million) as well as strategic alliance agreements on technological and industrial cooperation.

However, Dassault Aviation has expressly undertaken to forego the exercise of the right of veto which it has, by virtue of the agreement, over some of Thales' strategic operations; this decision concerns a series of potential acquisitions or disposals. In return, the Public Sector has foregone its right to terminate the agreement in the event of persistent disagreement regarding a strategic operation likely to have an adverse impact on its strategic interests⁽⁶⁾.

Should Dassault Aviation exercise its right of veto over the appointment of the Chairman and CEO, after a consultation period of three months, either of the parties may terminate the agreement.

(1) Pursuant to Article 3 of Decree No. 97-190 of 4 March 1997.

(2) See Decision No. 207C0013 of 2 January 2007, published in the French Legal Gazette (Bulletin officiel des annonces légales obligatoires, BALO) of 5 January 2007.

(3) Published in the Official Journal of the French Republic on 12 December 2006 (see the Official Journal website: www.journal-officiel.gouv.fr) pursuant to the provisions of Article 1-1° of Decree 93-1041 of 3 September 1993 and pursuant to law No. 86-912 of 6 August 1986 mentioned above.

(4) This agreement is set out in the appendix to the Thales Board of Directors' report to the Extraordinary General Meeting of 5 January 2007, registered by the AMF on 19 December 2006 under number E.06-194 (www.thalesgroup.com).

(5) With regard to a proposal to separate the functions of CEO and Chairman, an amendment to the shareholders' agreement regarding Thales was concluded between the Public Sector and Dassault Aviation on 7 April 2015, designed to amend the shareholders' agreement so that the Board of Directors of Thales is composed of 18 members including six proposed by the Public Sector, five by the Industrial Partner (Dassault Aviation), two employee representatives, one representative of employee-shareholders and four external individuals. As the proposal to separate the functions of CEO and Chairman was rejected, the shareholders' agreement was reverted to its initial version dated 19 May 2009 through a second amendment signed on 13 May 2015, and the stipulations of the agreement therefore remain unchanged. For more details on these amendments, refer to D&I 215C0404 of 7 April 2015 and D&I 215C0643 of 15 May 2015 published on the AMF's website.

(6) Acquisitions or disposals identified by the French State as having potentially significant importance with regard to its strategic defence interests and having the objective of strengthening the industrial and technological defence base in France.

Shareholder interests

Dassault Aviation must hold at least 15% of the share capital and voting rights in Thales and remain the largest private shareholder in Thales. The Public Sector must take whatever measures are required to enable Dassault Aviation to comply with this undertaking.

The Public Sector undertakes to restrict its shareholding to 49.9% of Thales' capital and voting rights.

Term of the shareholders' agreement

In the absence of termination on expiry of the contract on 31 December 2016, the agreement was tacitly renewed for another period of five years, expiring on 31 December 2021. It may be tacitly renewed for five-year periods.

The agreement will be automatically terminated and the concerted action between TSA and Dassault Aviation will also automatically cease should one of the parties commit, without prior consultation with the other party, an action which creates an obligation to make a public offer for Thales.

Option of unilateral termination of the agreement and agreement to sell to the Public Sector

The Public Sector has the option of terminating the agreement and asking Dassault Aviation to suspend the exercise of the voting rights that it holds above a threshold of 10%, or to reduce its shareholding to less than 10% of Thales' capital, in the event of:

- a serious breach by Dassault Aviation of its obligations so as to substantially compromise the protection of the strategic interests of the French State, given that said obligations are subject to an "agreement on the protection of strategic national interests in Thales" (see below);
- a change in control of Dassault Aviation.

In this respect, Dassault Aviation gives the Public Sector an irrevocable and definitive undertaking to sell all shares held by Dassault Aviation upon confirmation that Dassault Aviation's shareholding of Thales has remained above 10% of Thales' capital in the six months following the Public Sector's request to reduce its shareholding.

The Public Sector⁽¹⁾ was bound by an undertaking to hold a stake in Thales granting it at least 10% of the voting rights. This undertaking expired on 31 December 2014⁽²⁾.

6.2.3.3.2 Agreement on the protection of strategic national interests

Furthermore, on 19 May 2009 Dassault Aviation endorsed the "agreement on the protection of strategic national interests in Thales" signed on 28 December 2006 by Alcatel-Lucent and the French State in the presence of TSA. This endorsement gives rise to the following obligations for Dassault Aviation:

- Dassault Aviation's registered office and operational headquarters must remain in France;
- directors of Thales proposed by Dassault Aviation must be nationals of the European Union;
- access to sensitive information concerning Thales is strictly controlled within Dassault Aviation;
- managers who are responsible for Dassault Aviation's holdings in Thales are French nationals;
- Dassault Aviation uses its best endeavours to prevent any action or influence in the governance and businesses of Thales by foreign

national interests. In this respect, in the event of (i) a serious and unremedied breach by Dassault Aviation of its obligations under the agreement on the protection of strategic national interests or if it emerges that the application of a foreign law by Dassault Aviation creates constraints for Thales that substantially compromise the protection of the strategic interests of the French State, or (ii) a change in control within Dassault Aviation, contrary to the strategic interests of the Public Sector, the Public Sector may:

- terminate the rights that Dassault Aviation enjoys under the shareholders' agreement; and, if it sees fit,
- ask Dassault Aviation either to suspend the exercise of any voting rights it holds in excess of 10%, or
- ask it to reduce its shareholding to less than 10% of Thales' capital through the divestment of shares on the market (under conditions consistent with its financial interests and market constraints). At the end of a six-month period from the date on which it was asked to reduce its shareholding, if the shareholding of Dassault Aviation is still in excess of 10% of Thales' capital, the French State may proceed with the aforementioned undertaking to sell.

6.2.3.3.3 Crossing of thresholds and declaration of intent

- Following the substitution of Alcatel-Lucent Participations by Dassault Aviation, within the concert formed with the Public Sector *vis-à-vis* Thales and the disposal of Thales shares owned by GIMD to Dassault Aviation, on 19 May 2009 the latter exceeded, jointly with the Public Sector, the thresholds of 25% of the voting rights, 1/3 of the capital and voting rights and 50% of the voting rights of Thales and, on 20 May 2009, the threshold of 50% of the capital of Thales.

On 20 May 2009, the Public Sector, together with Dassault Aviation, exceeded the threshold of 50% of the capital of Thales.

These changes were granted dispensation from the obligation to submit a proposal for a public offer. This decision is reproduced in Décisions 208C2115 of 27 November 2008 and published in the BALO of 1 December 2008.

It is available on the BALO website at <https://www.journal-officiel.gouv.fr/balo/index.php>.

- Dassault Aviation announced it had individually exceeded the 25% threshold of voting rights on 9 July 2012 and individually held 52,531,431 Thales shares representing 86,531,431 voting rights, equal to 25.96% of the capital and 29.33% of the voting rights at that date.

This threshold was crossed due to the allocation of double voting rights to Dassault Aviation on a portion of its holding.

- Dassault Aviation announced that⁽³⁾, on 13 January 2016, it had "fallen below the threshold of 25% of the capital of the Company and that it individually owns 52,531,431 Thales shares representing 87,185,780 voting rights, or 24.90% of the capital and 28.59% of the Company's voting rights."

Dassault Aviation also revealed that this threshold crossing was due to an increase in the total number of Thales shares and voting rights and that, on this occasion, the concert party formed by TSA (Public Sector) and Dassault Aviation had not exceeded any thresholds.

- On 15 January 2018, the French State and EPIC Bpifrance entered into an allocation agreement under which the State decided to allocate EPIC Bpifrance 109,999,999 TSA shares, or 99.99% of TSA's capital (the State keeping one TSA share), it being specified that TSA holds 54,786,654 Thales shares representing 109,573,308 voting rights.

(1) TSA and Sofvission in accordance with the terms of AMF Decision No. 208C2115. Sofvission was taken over by TSA in the second half of 2012

(2) See AMF Decision No. 208C2115 of 27 November 2008 published in the French Legal Gazette (Bulletin officiel des annonces légales obligatoires, BALO) of 1 December 2008, available for consultation on the AMF's website.

"The Public Sector shall agree to hold, following the standard expiry of the shareholders' agreement, a stake in Thales granting it at least 10% of the voting rights, up until the earliest of the following three dates: (i) 31 December 2014, (ii) three years as from the termination of the shareholders' agreement or (iii) date on which Dassault Aviation ceases to hold at least 15% of Thales' share capital."

(3) See AMF Decision No. 216C0199, available for consultation on the AMF's website.

This allocation agreement provides in particular for EPIC Bpifrance to act in concert with the French State with regard to TSA and, through TSA, alongside the French State, to act in concert with Dassault Aviation vis-à-vis Thales.

EPIC Bpifrance's joint exceeding of the 30% threshold of Thales's capital and voting rights was the subject of a prior decision by the AMF to waive the obligation to file a public offering. This was reproduced in Decision No. 217C0137 dated 16 January 2018.

Following the completion of the allocation on 29 January 2018, EPIC Bpifrance disclosed that, jointly with the French State and indirectly through TSA, which acts in concert with Dassault Aviation vis-à-vis Thales, it had exceeded the thresholds of 5%, 10%, 15%, 20% and 25% of the capital and voting rights and 1/3 of the voting rights of Thales. In this occasion, the EPIC Bpifrance exceeded indirectly, on January 29th, 2018, through TSA, the thresholds of 5%, 10 %, 15 %, 20 % and 25 % of the capital and voting rights and 1/3 of the voting rights of Thales. The disclosure mentioned in particular that this transaction did not modify the terms and conditions of the concert between TSA and Dassault Aviation or the percentages of the joint stake in the capital and voting rights of Thales, that the French State remains the dominant party within this concert, and that, in accordance with the allocation agreement, EPIC Bpifrance will not ask to be represented on the Thales Board of Directors, such that the representation of the French State and Dassault Aviation on said Board will remain unchanged.

In 2018 BlackRock, Inc., acting on behalf of its clients and funds under management, disclosed that it had exceeded the 5% threshold of Thales capital. In its latest declaration received by Thales in 2018, BlackRock, Inc. disclosed that on 28 December 2018 it had exceeded the 5% threshold of Thales capital and held 5.04% of the Company's capital and 3.50% of its voting rights on behalf of said clients.

6.2.3.3.4 Specific agreement

On 28 December 2006, the French State (Ministry of Defence and Ministry of the Economy) and Thales signed an agreement to give the French State control not only over the transfer of assets already mentioned in the appendix to Decree No. 97-190 of 4 March 1997, but also over shares in Thales Alenia Space SAS (hereinafter referred to as the "Strategic Asset"). The main elements of this agreement are as follows:

a) Where the Strategic Asset is a company (the "Strategic Company")

- Any proposed transfer of shares in the Strategic Company to a third party such that the third party exceeds the threshold of 33.3% of the share capital.
- Any proposed transfer of shares in the Company that directly or indirectly controls the Strategic Company to a third party such that the third party exceeds the threshold of 33.3% of the share capital.

b) Where the Strategic Asset is an isolated asset, unincorporated division or branch of the business (the "Strategic Division")

- Any proposed transfer of shares in the Company that owns the Strategic Division to a third party such that the third party exceeds the threshold of 33.3% of the share capital.
- Any proposed transfer of shares in the Company that directly or indirectly controls the company referred to in the previous paragraph to a third party such that the third party exceeds the threshold of 33.3% of the share capital.

c) Any proposed transfer of sensitive assets to a third party

d) And any proposal intended to confer or having the effect of conferring particular rights on a third party

Shall be disclosed to the French State, which undertakes to issue its acceptance or refusal decision within thirty (30) working days from the receipt of said notification. Failure by the French State to communicate its decision during said time is deemed to signify acceptance of the proposed transaction.

6.2.3.3.5 Golden share held by the French State and other restrictions related to foreign investments in France

The golden share held by the French State entitles it to the following rights:

- "Any increase in the direct or indirect holding of securities, irrespective of the nature or legal form, beyond a threshold of one-tenth, or a multiple thereof, of the capital or voting rights of the Company, by any natural person or legal entity, whether acting alone or in concert, must be approved in advance by the Minister for the Economy (...);"
- "Upon the proposal of the Minister of Defence, a representative of the French State, appointed by decree, sits on the Board of Directors of the Company as a non-voting director";
- "(...) decisions to dispose of or assign by way of guarantee the assets specified in the appendix to this decree may be opposed."

At 31 December 2018, these assets consisted of the majority of the share capital in the following companies:

Thales DMS France SAS (formerly known as Thales Systèmes Aéroportés SAS), Thales (Wigmore Street) Ltd, Thales SIX GTS France SAS (formerly known as Thales Communications & Security SAS), Thales IAS France SAS (formerly known as Thales Air Systems SAS), Thales Nederland BV, Thales AVS France SAS (formerly known as Thales Avionics SAS), Thales Underwater Systems NV.

In addition, as a result of some of Thales's activities, particularly in the defence sector, shareholders and investors may be subject to certain restrictions applicable to foreign investments in France in accordance with Article L. 151-3 of the French Monetary and Financial Code and Article 10 of law No. 86-912 of 6 August 1986 on the terms and conditions of privatisation.

(1) See AMF Decision No. 218C0345 of 6 February 2018, which can be viewed on the AMF's website.

(2) Pursuant to Article 3 of Decree No. 97-190 of 4 March 1997.

6.2.3.4 Treasury shares

At 31 December 2018, Thales held 648,295 treasury shares (0.30% of the capital), i.e. the balance after shares bought and sold in the market or otherwise under the authorisations described below granted to the Board of Directors by the Annual General Meeting.

Treasury shares are not subject to any restrictions and are freely transferable.

6.2.3.4.1 Authority to trade in the Company's shares

At its meeting of 4 April 2017 at which it delegated to the Chairman & Chief Executive Officer the authority to trade in the Company's shares, the Board of Directors set the maximum purchase price at €120 per share. By decision of the Board of Directors of 5 March 2018, the maximum price was increased to €125 as from the Annual General Meeting on 23 May 2018.

The transactions carried out in 2018 show a net purchase of 79,556 treasury shares, the details of which are as follows:

- transactions related to the delivery of securities to employees (net sale of 56,718 shares):
 - exercise of stock options and delivery of free shares to employees (-239,600 shares),
 - shares sold to employees under the 2017 employee shareholding scheme (-37,118 shares),
 - shares purchased directly in the market to meet the commitments to employees of the delivery of free shares (220,000 shares);
 - liquidity contract, net purchase for the period: 136,274 shares.

6.2.3.4.2 Authority to cancel Company shares

The 24-month authorisation granted to the Board of Directors by the Annual General Meeting of 17 May 2005 to cancel – on one or more occasions – shares held by the Company, up to a limit of 10% of share capital, as part of an authorisation to buy back its own shares, was renewed by the Annual General Meetings of 16 May 2007, 15 May 2009, 18 May 2011, 24 May 2013, 13 May 2015 and 17 May 2017, without that authorisation ever being used.

6.2.3.4.3 Share buy-back programme

6.2.3.4.3.1 Description of the share buy-back programme proposed to the Annual General Meeting of 15 May 2019

- Maximum proportion of capital subject to repurchase: 10%, on the buy-back date.

The net balance of 2018 trading was the purchase of 79,556 shares, broken down by objective as follows:

a) Net disposal or allotment of shares to Group employees and directors in the manner stipulated by law, particularly when share purchase options are exercised or existing free shares are allotted, and employee shareholding plans	(56,718)
b) Regulation of the market price by a liquidity contract drawn up in accordance with the AFEI Code of Conduct	136,274

Breakdown of treasury shares by objective at 31 December 2018

The total number of shares held at that date was 648,295, representing 0.30% of Thales's share capital. The breakdown by objective was as follows:

a) Disposal or allotment of shares to Group employees and directors as stipulated by law, particularly when share purchase options are exercised or existing free shares are allotted	386,021
b) Regulation of the market price by a liquidity contract drawn up in accordance with the AFEI Code of Conduct	262,274

- Maximum number of shares that may be purchased: 21,310,408.
- Maximum amount of the programme: 2,663,801,000.
- Maximum unit purchase price: €125.

Objectives of the programme

- To sell or allot shares to Group employees under the conditions and in the manner stipulated by law, particularly when share purchase options are exercised or existing free shares are allotted, or when shares are sold and/or supplemented under an employee shareholding scheme transaction on existing shares;
- to retain shares for later use in connection with acquisitions, mergers, demergers or contributions;
- to ensure trading in the shares through a liquidity contract prepared in accordance with a Code of Conduct approved by the AMF;
- to cancel shares in accordance with an Annual General Meeting resolution in force;
- to deliver shares upon the exercise of rights attached to securities conferring the right in any way to the allotment of Company shares.
- **Duration of the programme:** 18 months from the date of approval of the resolution that will be submitted to the Annual General Meeting of 15 May 2019, i.e. no later than 12 November 2020.
- **Liquidity contract:** in November 2004, Thales signed a liquidity contract, in accordance with the AFEI Code of Conduct, in order to regulate share trading. The contract was amended to comply with the AFEI Code of Conduct appended to the AMF decision of 22 March 2005 and since January 2019 with AMF Decision No. 2018-01 of 2 July 2018 establishing liquidity contracts on equity securities as an accepted market practice.

6.2.3.4.3.2 Trading in Company shares during 2018

In 2018, Thales traded in Company shares as part of its share buy-back programme drawn up in accordance with the AMF General Regulations (Article 241-1 *et seq.*).

These transactions were carried out as part of the share buy-back programme authorised at the Annual General Meeting of 17 May 2017 for transactions performed between 1 January 2018 and 23 May 2018, and in accordance with the authorisation given by the Annual General Meeting of 23 May 2018 for transactions performed between 24 May 2018 and 31 December 2018.

At 1 January 2018, Thales held 568,739 treasury shares, representing 0.27% of the capital, compared with 648,295 at 31 December 2018.

Market value of the portfolio at 31 December 2018

€66,126,090, at the closing price on 31 December 2018 of €102.00.

	Aggregate gross amounts from 1 January 2018 to 31 December 2018	
	Purchases	Sales
No. of shares	1,058,402	978,846
Average transaction price (in euros) including possible discounts and free shares	105.753	76.7662
Amounts (in euros)	111,929,593	75,142,302

Thales did not make use of derivatives (futures sales) as part of this redemption programme.

6.2.3.5 Free share, unit or phantom share plans subject or not subject to performance conditions

The Group regularly grants its employees and executives free shares as part of its performance management policy for Group employees. The various plans are described below.

6.2.3.5.1 Allotment of free shares

Allotment of free shares and/or performance shares

In 2018 the Board of Directors, with the approval of the Annual General Meeting, set up a tenth free share allotment plan.

The Chairman and Chief Executive Officer (the only Company representative) is not entitled to benefit from this plan.

The allotment on 27 September 2018 took the following form:

Performance shares

- The allotted shares are all subject to the fulfilment of internal performance conditions during the three financial years following the grant date. The performance criteria are EBIT, free operating cash flow and order intake, with weightings of 60%, 15% and 25%, respectively;
- shares may be validated in tranches of one-third once the Board of Directors has approved the Group's consolidated financial statements for the three financial years concerned;
- the number of shares vested will not exceed the number of shares initially allotted;
- all designated beneficiaries of the plan are allotted shares validated at the end of a four-year vesting period subject to compliance with the employment conditions stipulated in the plan's rules.

Date of Board decision	27/09/2018	28/09/2017		27/10/2016
	Performance shares	Performance shares	Free shares	Performance shares
Number of beneficiaries at grant date	738	764	550	232
Share price at allotment date	€121.75	€94.66	€83.10	€83.10
Number of shares allotted	181,515	212,540	88,020	148,070
Balance of free shares at 31/12/2017	N/A	212,540	87,560	147,760
Cancellation of allotments during the financial year 2018 ^(a)	180	1,640	1,250	2,390
Early allotments during the financial year 2018 ^(b)	—	—	290	—
Number of shares delivered on expiry of the plan	N/A	N/A	N/A	N/A
Number of beneficiaries of delivery on expiry	N/A	N/A	N/A	N/A
Balance of free shares net of cancellations and early allotments at 31/12/2018	181,335	210,900	86,020	145,370
Number of beneficiaries remaining at 31/12/2018	737	758	537	225
Vesting period	from 27/09/2018 to 27/09/2022	from 28/09/2017 to 28/09/2021		from 27/10/2016 to 27/10/2020

(a) Due to the departure of the beneficiary or, for the plans concerned, due to eliminations related to partial or total non-achievement of the performance conditions.

(b) Due to death of the beneficiary during the vesting period.

Allotment of shares in financial year 2018

Ten largest allotments of shares to employees during the year	Number of shares allotted	Share price at allotment date	Date of plan
Performance shares	30,700	€121.75	27/09/2018

During 2018, the allotment of shares subject to performance conditions to employees of the Company or its subsidiaries, excluding Thales executive officers, was between 80 and 4,200 shares.

6.2.3.5.2 Allotment of units or units subject to performance conditions indexed to the Thales share price

No plan for the allotment of units was set up for employees in 2018 except for that granted for the only Company representative (page 161).

Unit plans subject to performance conditions allotted in 2014 and 2015

- Each unit allotted confers the right, at the end of the four-year vesting period and subject to the employment condition stipulated in the regulations, to the payment of a monetary value;
- this monetary value will be calculated at the end of the vesting period, and will be equal to the average of the daily opening prices for the Thales share during the vesting period. Extreme upwards or downwards variations in the stock market price will be neutralized;
- the amount due on the expiry date to the beneficiaries who meet the employment conditions will be equal to the number of units allotted multiplied by the value of the unit. Half of the payment will be made in shares, while the other half will be paid in cash.

Unit plan subject to employment and performance conditions

- The units subject to performance conditions follow the same rules as for units, i.e. vesting period and employment conditions, but the number of units that are actually issued on the expiry date will depend on the fulfilment of internal performance conditions over the three financial years following their allotment date; units may be validated in tranches of one-third once the Board of Directors has approved the Group's consolidated financial statements for the three financial years concerned;
- the number of units validated may not exceed the amount initially allotted;
- the three performance criteria used for the 2014 and 2015 plans are EBIT, free operating cash flow and order intake, with weightings of 60%, 15% and 25%, respectively.

Date of Board decision	17/09/2015		16/09/2014	
	Units	Performance units	Units	Performance units
Number of beneficiaries at grant date	3,885	293	3,684	310
Unit price at grant date	€61.75	€61.75	€42.42	€42.42
Number of units allotted	376,840	232,000	425,920	281,050
Balance of units at 31/12/2017	359,030	221,450	396,760	258,700
Cancellation of allotments during the financial year 2018 ^(a)	8,570	2,500	9,410	1,800
Early allotments during the financial year 2018 ^(b)	—	—	—	—
Post-closing adjustments ^(c)	—	4,000	—	3,800
Number of shares delivered on expiry of the plan			387,350	260,700
Number of beneficiaries of delivery on expiry			3,352	284
Balance of units at 31/12/2018	350,460	222,950	—	—
Number of beneficiaries remaining at 31/12/2018	3,591	275	—	—
Vesting period	from 17/09/2015 to 16/09/2019		from 16/09/2014 to 15/09/2018	

(a) Due to the departure of the beneficiary or, for the plans concerned, due to eliminations related to partial or total non-achievement of the performance conditions.

(b) Due to death of the beneficiary during the vesting period.

(c) Cancellation error.

6.2.3.5.3 Allotment of phantom shares or phantom shares subject to performance conditions indexed to the Thales share price

In September 2018, a phantom share plan based on the Thales share price was put in place for certain international employees. This plan is

equivalent to the performance-based free share plans offered to employees in France.

Through this plan, 322 people received 62,940 phantom shares under the same performance conditions as the free shares allotted on the same date.

6.2.3.5.4 Validation of performance conditions for financial year 2018

Share, unit and phantom share plans subject to performance conditions	Validation of the 1st tier of the award		Validation of the 2nd tier of the award		Validation of the 3rd tier of the award	
	Reference year	% achievement of performance conditions	Reference year	% achievement of performance conditions	Reference year	% achievement of performance conditions
17 September 2015	2016	100%	2017	100%	2018	100%
27 October 2016	2017	100%	2018	100%	2019	—
28 September 2017	2018	100%	2019	—	2020	—
27 September 2018	2019	—	2020	—	2021	—

6.2.3.6 Shares owned by the public

The Company is entitled at all times, as provided by law, to ascertain the identity of and the number of shares held by holders of bearer shares, which now or in the future, represent a specific fraction of its share capital (the "TPI" Identifiable Bearer Security procedure).

Based on the most recent surveys of identifiable holders of bearer shares carried out by Euroclear France, and the Company's information on employee shareholders, private ownership of Company shares is estimated as follows:

(in thousands of shares)	31/12/2018	31/12/2017
French institutional investors	26,769	26,308
Non-resident institutional investors	64,405	62,434
Others (e.g. brokerage firms)	3,087	3,557
Employee shareholding	5,575	6,181
Individual shareholders and associations ^(a)	4,743	5,739
Not identified	557	553
Subtotal entire public	105,135	104,772
TOTAL NUMBER OF SHARES	213,104	212,659

(a) Mainly French residents.

	As % of the total capital		As % of the free float (excluding treasury shares)	
	31/12/2018	31/12/2017	31/12/2018	31/12/2017
French institutional investors	12.6%	12.4%	25.5%	25.1%
Non-resident institutional investors	30.2%	29.4%	61.3%	59.6%
Others (e.g. brokerage firms)	1.4%	1.7%	2.9%	3.4%
Employee shareholding	2.6%	2.9%	5.3%	5.9%
Individual shareholders and associations	2.2%	2.7%	4.5%	5.5%
Not identified	0.3%	0.3%	0.5%	0.5%
ENTIRE PUBLIC	49.3%	49.3%	100.0%	100.0%

➤ GEOGRAPHIC BREAKDOWN OF INSTITUTIONAL INVESTORS

31/12/2018	Number of shares held (in thousands)	As % of the total capital	As % of the free float	Number of investors
France	26,769	12.6%	25.6%	82
Continental Europe (exc. France)	10,384	4.9%	9.9%	137
North America	27,112	12.7%	25.8%	131
United Kingdom & Ireland	23,843	11.2%	22.7%	69
Rest of world	3,066	1.4%	2.9%	53
TOTAL	91,173	42.8%	86.7%	472

6.2.3.7 Employee shareholdings at 31 December 2018

At 31 December 2018, current or former Group employees held 5,575,167 Thales shares, representing 2.62% of the capital (and 3.37% of voting rights) within the meaning of Article L. 225-102 of the French Commercial Code.

Holding by country	In number of shares	As % of employee shareholding	In % of capital	Related voting rights as % of total voting rights
Shares held through the Group savings scheme (PEG) – France and world (2 dedicated funds ^(a))	3,561,592	63.88%	1.67%	2.27%
Shares held through the Group savings scheme (PEG) – Netherlands (1 dedicated fund ^(b))	63,224	1.13%	0.03%	0.04%
Shares held through a Trust/SIP ^(c) – United Kingdom	226,966	4.07%	0.11%	0.07%
Shares held directly – United States	56,054	1.01%	0.03%	0.02%
Shares held directly – France and world	77,742	1.39%	0.04%	0.04%
Shares held directly as a result of the allotment of free shares (Article L. 225-197-1 of the French Commercial Code) – France and world	1,589,589	28.51%	0.75%	0.92%
Total number of shares held by current or former employees	5,575,167	100.00%	2.62%	3.37%
TOTAL SHARE CAPITAL	213,104,081			

(a) "Actions Thales" and "World Classic" funds.

(b) "Netherlands Classic" fund.

(c) Share Incentive Plan.

6.3 RELATED-PARTY AGREEMENTS

6.3.1 Commitments and agreements authorised after year end

The Board of Directors has not authorised any new related-party commitments or agreements since year end.

6.3.2 Commitments and agreements authorised during 2018

No new related-party commitments or agreements were authorised by the Board of Directors in 2018.

6.3.3 Agreements authorised during previous financial years

The agreements authorised by the Board of Directors and approved by the Annual General Meeting in previous financial years that continued to be performed in 2018 have been disclosed to the statutory auditors in accordance with the applicable regulations. They are also described in a special report presented in section 6.3.4.

Board of Directors' meeting held on 5 March 2018

The Board of Directors authorised the renewal, under the terms and conditions specified below, of three remuneration items which had been authorised by the Board on 25 February 2015 and put in place for the benefit of the Chairman & Chief Executive Officer upon termination of his employment contract. These renewed commitments took effect after they were approved by the Annual General Meeting of 23 May 2018 and after Patrice Caine was subsequently reappointed as Chairman & Chief Executive Officer.

- **Compensation payments likely to be payable to Patrice Caine, Chairman & Chief Executive Officer, upon termination of his term of office as Company representative**

Subject to the fulfilment of the performance conditions imposed by the Board of Directors and if so decided by the Board, compensation may be paid to Mr Patrice Caine, if his term of office as Company representative should be terminated, except in the case of resignation, serious misconduct or gross negligence.

The amount of compensation is fixed at 12 months of his reference salary (fixed and variable compensation paid over the last 12 months of activity, excluding long-term compensation).

Payment of this compensation will be subject to the fulfilment, as recorded by the Board, of performance conditions established by the latter subject to compliance with the following condition: payment will be made if the average rate of achievement of the annual operational profitability objectives is 80% or more over the past three years.

If that is not the case, no compensation payment will be due.

- **Renewal of private employment insurance for Patrice Caine, Chairman & Chief Executive Officer, subscribed to by the Company**

Entitlement to this insurance is subject to the same performance condition as the above-mentioned compensation for termination.

- **Commitment related to the deferred progressive and conditional compensation scheme applicable to Patrice Caine since his appointment as Chairman & Chief Executive Officer**

The amount of this compensation is calculated based on the point allocation method identical to that used for employees entitled to the group supplementary pension scheme applicable within Thales group.

This deferred compensation is only deemed to have been acquired on condition that the Company representative has carried out a full term in office. Entitlement is subject to the same performance condition as the above-mentioned compensation for termination.

An increase in this deferred compensation will be applied provided that the Chairman & Chief Executive Officer has a minimum of 10 years' service as part of the Thales Executive Committee.

More information on these three related-party commitments is provided in section 4.4.1.

Board of Directors meeting held on 6 March 2008

FSTA: commitments to be undertaken by the parent company, authorised by the meeting of the Board of Directors on 6 March 2008

Having noted the characteristics of the "FSTA" public-private partnership, which has significant importance and high visibility for the Group, and which thus consolidates its presence in the United Kingdom, the Board of Directors:

- has approved the transaction to be concluded by Thales UK Ltd in its capacity as a member and subcontractor of the consortium (Thales UK Ltd has since assumed the subcontracting commitments of the companies Thales Avionics Ltd, Thales Training & Simulation Ltd and Thales Air Operations Ltd);
- has approved the issue of the three guarantees required (Resources and Materials parent company Guarantee, Opco Primary Subcontracts parent company Guarantee and Deed of Indemnity and Security) as per the terms submitted to it;
- has delegated to the Chairman, who may sub-delegate, all powers necessary for the fulfilment of these guarantees, for the signature of any deeds or documents, and in general to do what is necessary for carrying out this operation.

For the period 27 October 2017 to 27 October 2018, Thales invoiced Air Tanker the amount of £312,668 (or €353,448), pursuant to letters of credit in force.

6.3.4 Statutory auditors' report on related party agreements and commitments

This is a translation into English of a report issued in French and it is provided solely for the convenience of English-speaking users. This report should be read in conjunction with and construed in accordance with French law and professional standards applicable in France.

To the General Shareholders' Meeting of Thales S.A.,

In our capacity as your company's statutory auditors, we hereby report to you on regulated party agreements and commitments.

It is our responsibility to report to the shareholders, based on the information provided to us, on the main terms and conditions of agreements and commitments that have been indicated to us or that we may have identified as part of our engagement, as the well as reasons why they benefit the company, without commenting on their relevance or substance or identifying any undisclosed agreements or commitments. Under the provisions of Article R. 225-31 of the French Commercial Code, it is the responsibility of the shareholders to determine whether the agreements and commitments are appropriate and should be approved.

Where applicable, it is also our responsibility to provide the shareholders with the information required by Article R. 225-31 of the French Commercial Code in relation to the implementation during the year ended 31 December 2018 of the agreements and commitments previously approved by the Shareholders' Meeting.

We performed the procedures that we deemed necessary in accordance with the guidance issued by the French Institute of statutory auditors (*Compagnie nationale des commissaires aux comptes*) for this type of engagement. These procedures consisted in verifying that the information given to us is consistent with the underlying documents.

Agreements and commitments submitted for approval to the General Shareholders' Meeting

Agreements and commitments authorized and concluded during year ended

We have been informed of no agreements and commitments authorized during the year and requiring the approval of the Shareholders' Meeting by virtue of Article L. 225-38 of the French Commercial Code.

Agreements and commitments previously approved by the General Shareholders' Meeting

Agreements and commitments approved in previous years whose implementation continued during the year ended 31 December 2018

In accordance with Article L. 225-30 of the French Commercial Code, we have been informed of the following agreements and commitments approved in prior years and which continued during the year ended 31 December 2018.

- With Thales UK, a wholly-owned subsidiary of your company

Commitments undertaken within the framework of the "FSTA" public-private partnership

Under the "FSTA" public-private partnership, your company granted guarantees to Thales UK Ltd, as a member of the Air Tanker consortium (Thales UK Ltd had taken over the subcontracting commitments of Thales Avionics Ltd, Thales Training & Simulation Ltd).

At its meeting held on 6 March 2008, the Board of Directors approved the issuance of the three required guarantees ("Resources and Materials

Parent Company Guarantee", "Opco Primary Subcontracts Parent Company Guarantee" and "Shareholder Deed of Indemnity and Security") as per the terms submitted to it.

Pursuant to letters of credit in force to cover the following period from 27 October 2017 to 27 October 2018, your company invoiced Air Tanker the total amount of GBP 312,668 (EUR 353,448.94).

Agreements and commitments authorized and concluded during year ended

In addition, we have been informed of the following agreement concluded during the year ended and authorized by the Shareholders' Meeting of 23 May 2018, on the statutory auditors' report of 5 March 2018.

- With Mr. Patrice Caine, Chairman and Chief Executing Officer since 23 December 2014.

Commitment related to compensation payments likely to be payable to Mr. Patrice Caine upon termination of his term of office as Company representative

Subject to the fulfilment of the performance conditions imposed by the Board of Directors and if so decided by the Board, compensation may be paid to Mr. Patrice Caine, if his term of office as Company representative should be terminated, except in the case of resignation, serious misconduct or gross negligence.

The amount of compensation is fixed at 12 months of his reference salary (fixed and variable compensation paid over the last 12 months of activity, excluding long-term compensation).

The payment of this compensation will be subject to the fulfilment, as confirmed by the Board, of performance conditions established: namely, if the average rate of achievement of the annual operational profitability objectives is equal to or higher than 80% over the past three years.

If that is not the case, no compensation payment will be due.

Commitment related to a private unemployment insurance scheme for Mr. Patrice Caine

The private unemployment insurance that the Company has decided to subscribe to the benefit of Mr. Patrice Caine and for which entitlement to this insurance is subject to the same performance condition as the above-mentioned compensation for the termination.

Commitment related to the deferred progressive and conditional compensation scheme applicable to Mr. Patrice Caine

The amount of this compensation is calculated based on the point allocation method identical to that used for employees entitled to the additional group retirement scheme applicable within Thales Group.

It is only deemed to have been acquired:

- on the condition of carrying out a full mandate, and
- is subject to the same performance condition as the above-mentioned compensation for the termination.

The annuity increase is subject to a minimum of 10 years' service as part of the Thales Executive Committee.

Paris-La Défense and Courbevoie, 25 February 2019

The statutory auditors

Mazars

Dominique Muller
Gregory Derouet

Ernst & Young Audit

Philippe Diu
Serge Pottiez

6.4 STOCK MARKET INFORMATION AND FINANCIAL COMMUNICATION

6.4.1 Thales shares

6.4.1.1 Listing markets

Thales's stock is listed on the Euronext Paris regulated market (Compartment A). It is eligible for the SRD deferred settlement system.

ISIN code¹: FR0000121329

Reuters: TCFP.PA

Bloomberg: HO FP

6.4.1.2 Index listing

At 31 December 2018, Thales stock was included in the following main indices:

- NYSE Euronext Paris indices: CAC Next 20, SBF 120, SBF 250, CAC Large60 and CAC All-Shares;
- international indices: DJ Euro Stoxx, FTSEurofirst 300.

6.4.1.3 Share price and trading volumes on Euronext Paris

6.4.1.3.1 Monthly data from January 2017 to December 2018 (share prices in euros)

	No. of trading days	No. of shares traded	Total value traded (€m)	Average daily volume	Weighted average price (€)	Share price High (€)	Share price Low (€)	Closing price (€)
2018								
January	22	7,123,954	643.80	323,816	90.37	92.180	87.360	90.211
February	20	6,599,411	588.87	329,971	89.23	93.460	84.300	91.610
March	21	8,276,899	793.29	394,138	95.84	99.620	89.020	99.056
Q1 2018	63	22,000,264	2,025.96	349,211	92.088	99.620	84.300	99.056
April	20	5,628,787	572.96	281,439	101.79	105.000	98.000	104.719
May	22	6,604,032	716.54	300,183	108.50	111.300	104.300	108.841
June	21	6,822,736	745.54	324,892	109.27	113.100	106.250	110.210
Q2 2018	63	19,055,555	2,035.04	302,469	106.795	113.100	98.000	110.210
July	22	5,801,108	653.20	263,687	112.60	116.750	108.800	112.450
August	23	4,590,720	534.96	199,597	116.53	122.600	111.900	121.350
September	20	5,579,916	672.39	278,996	120.50	124.450	117.300	122.350
Q3 2018	65	15,971,744	1,860.55	245,719	116.490	124.450	108.800	122.350
October	23	9,219,359	1,057.55	400,842	114.71	123.800	107.850	113.000
November	22	5,968,146	664.75	271,279	111.38	116.250	107.000	108.300
December	19	5,148,158	536.16	270,956	104.15	109.850	98.380	102.000
Q4 2018	64	20,335,663	2,258.46	317,745	111.059	123.800	98.380	102.000
2018	255	77,363,226	8,180.01	303,385	105.735	124.450	84.300	102.000

	No. of trading days	No. of shares traded	Total value traded (€m)	Average daily volume	Weighted average price (€)	Share price High (€)	Share price Low (€)	Closing price (€)
2017								
January	22	5,563,759	494.75	252,898	88.92	92.800	85.990	86.780
February	20	5,947,267	532.04	297,363	89.46	93.920	87.200	93.000
March	23	6,531,262	588.54	283,968	90.11	93.470	87.870	90.660
Q1 2017	65	18,042,288	1,615.33	277,574	89.530	93.920	85.990	90.660
April	18	4,687,059	435.05	260,392	92.82	96.940	89.170	96.520
May	22	5,421,844	531.51	246,447	98.03	99.670	96.060	98.320
June	22	6,135,606	599.51	278,891	97.71	100.450	93.850	94.240
Q2 2017	62	16,244,509	1,566.07	262,008	96.406	100.450	89.170	94.240
July	21	5,384,116	509.83	256,386	94.69	97.470	92.350	93.590
August	23	4,493,019	422.51	195,349	94.04	96.250	91.080	93.065
September	21	5,300,997	497.73	252,428	93.89	96.350	92.210	95.734
Q3 2017	65	15,178,132	1,430.07	233,510	94.219	97.470	91.080	95.734
October	22	7,660,946	713.32	348,225	93.11	97.320	88.000	89.396
November	22	7,741,193	680.93	351,872	87.96	90.560	83.510	84.971
December	19	7,842,087	693.45	412,741	88.43	94.600	83.250	89.880
Q4 2017	63	23,244,226	2,087.70	368,956	89.816	97.320	83.250	89.880
2017	255	72,709,155	6,699.17	285,134	92.137	100.450	83.250	89.880

6.4.1.3.2 Annual data from 2017 and 2018 (share prices in euros)

➤ SHARE PRICE AND PERFORMANCE

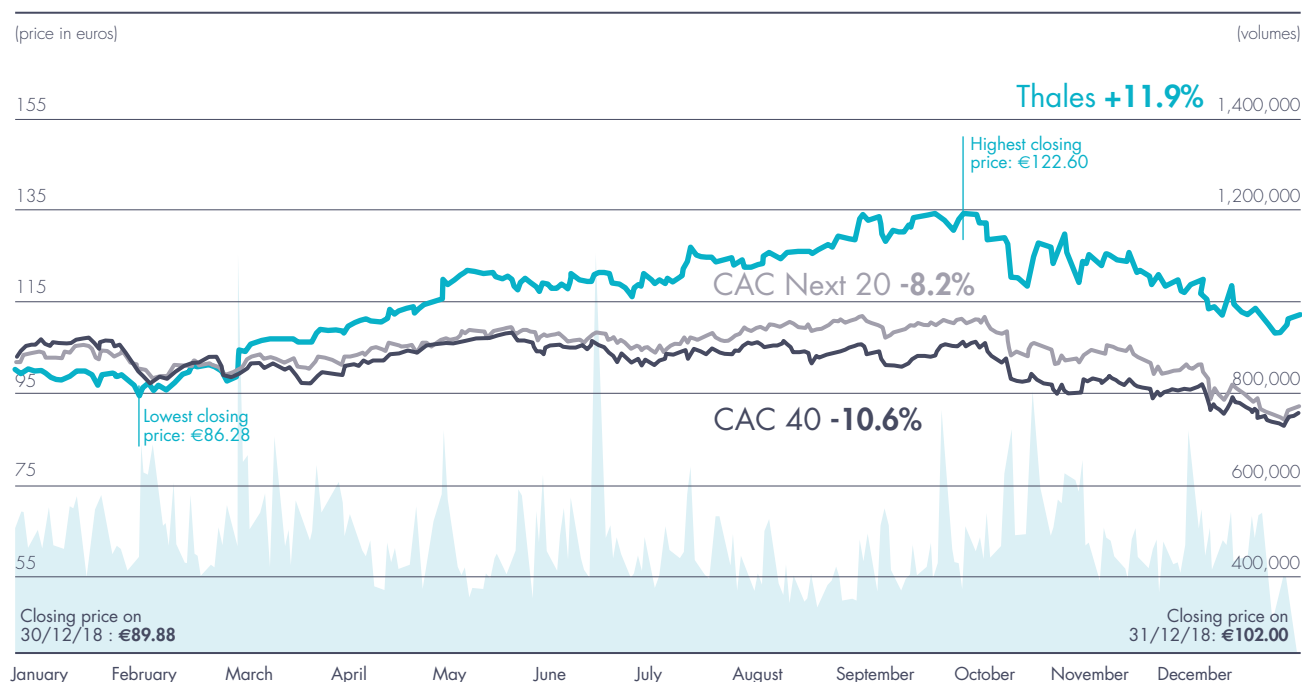
	2018	2017
Closing price (in €)	102.00	89.88
Session high (in €)	124.45	100.45
Session low (in €)	84.30	83.25
Weighted average price (in €)	105.74	92.14
Net dividend in respect of the previous year (in €)	1.75	1.60
Total Shareholder Return (TSR) ^(a) (%)	+13.8%	-0.7%
Change in Thales stock over the period (%)	+11.9%	-2.4%
CAC 40 performance over the period (%)	-10.6%	9.3%
CAC Next 20 performance over the period (%)	-8.2%	12.8%

(a) Total Shareholder Return: differential between annual closing prices, plus dividend after tax credit paid during the year in respect of the previous year, relative to the opening price.

	2018	2017
Average number of shares traded daily (thousands)	303.4	285.1
Total number of shares traded over the period (millions)	77.4	72.7
Total value traded over the period (€ million)	8,180.0	6,699.2
Average number of shares traded per month (thousands)	6,447	6,059
Average value traded per month (€ million)	681.7	558.3
Total number of shares in capital (period-end, in millions)	213.1	212.7

6.4.1.3.3 Chart and comments on the change in price and volumes traded from 1 January 2018 to 31 December 2018

➤ CHANGE IN SHARE PRICE AND TRADED VOLUMES FROM 1 JANUARY 2018 TO 31 DECEMBER 2018



Comments on share price in 2017 and 2018

- The Thales share price rose by nearly 13% in 2018, largely outperforming the CAC 40 and CAC Next 20 benchmark indices, which fell by 10.6% and 8.2% respectively.
- In 2017, the Thales share price fluctuated around €92, ending the year slightly down (-2.4%) on the start of the year, underperforming against the CAC 40 and CAC Next 20 indices, which were up 9.3% and 12.8%, respectively.

Comments on traded volumes in 2017 and 2018

- 2018 was a year of increased trading, with more than 77 million shares changing ownership (up 6.4% on 2017). Daily trading volumes also rose, to 303,385 shares per day. Traded volumes experienced one-off increases throughout the year, typically when the annual and half-year results were announced.
- Volumes remained high in 2017, with close to 73 million shares traded, despite pulling back from 2016 levels (down 15%). Daily traded volumes reached an average of almost 285,134 shares. The volumes traded experienced occasional increases during the year, typically when the annual and interim results were announced, but also with a peak the day after the announcement of the acquisition offer made on Gemalto (close to 1.3 million shares).

6.4.1.4 Dividend policy

Dividends are paid to the holders of shares in accordance with the law. The Company uses the Euroclear direct payment procedure.

The Board of Directors' meeting held on 25 February 2019 proposed applying a distribution rate equivalent to 38% of adjusted net income.

A proposal will therefore be put forward at the Thales Annual General Meeting on 15 May 2019 to pay a dividend of €2.08 per share for 2018, entirely in cash. As an interim dividend of €0.50 per share was paid in December 2018, the amount to be paid after the Annual General Meeting will relate to the balance of the dividend for 2018, i.e. €1.58 per share.

Per-share dividend information is provided below. In accordance with the French General Tax Code (Article 158-3, point 2), dividends paid in respect of 2015, 2016 and 2017 qualified for a possible tax credit.

➤ DIVIDENDS PAID FOR THE PAST THREE YEARS

(in €)	2018 ^(a)	2017	2016	2015
Dividend	2.08	1.75	1.60	1.36

(a) Subject to the approval of the Annual General Meeting of 15 May 2019. The ex-dividend date will be 21 May 2019 and the payment date will be 23 May 2019.

6.4.2 Financial communication policy

6.4.2.1 General overview

Thales's policy is to provide its shareholders with regular, clear and transparent information, in compliance with the financial reporting rules and practices applicable to listed companies.

In addition to this Registration Document filed with the French financial markets authority (AMF), which includes details of all the consolidated financial statements and associated analysis, business activities and results by business segment, the main statutory information about the Company and its corporate responsibility policy, Thales also publishes an interim report and a letter to shareholders as well as regular press releases. Other publications include an integrated report and a social report providing a detailed description of its commitments and achievements in these areas.

All Thales information documents, presentations and financial press releases are available on the Thales website at www.thalesgroup.com.

Thales also holds briefings for the financial community, by teleconference where appropriate, particularly when announcing results (annual and interim financial statements and quarterly information) or important strategic or financial operations.

Regular meetings between Thales executives and institutional investors are held in Europe and North America, typically as part of roadshows, Capital Markets Days or visits to operational sites. These include a more detailed presentation of the Group's business activities and strategy.

Thales also regularly exchanges information on its corporate social responsibility policy with the Socially Responsible Investor (SRI) community. These reports cover corporate, social, environmental, governance and international trade issues, especially regarding anti-corruption measures and control over the export of defence equipment and technologies or dual-use goods and technologies.

Finally, Thales also maintains an ongoing dialogue with international financial analysts and institutional investors to provide them with information about the Group's business activities and strategy.

6.4.2.2 Provisional financial reporting calendar for 2018

30 April	Q1 2018 financial information
15 May	Annual General Meeting
21 May	2018 ex-dividend date
23 May	Payment of the balance of the 2018 dividend
4 September	2019 interim consolidated results
22 October	Q3 2019 financial information

6.4.2.3 Contacts

Investor Relations Department

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92098 Paris-La Défense – France
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e-mail: ir@thalesgroup.com

6.4.2.4 Documents on Display

Thales by-laws, minutes of the General Meetings and Board of Directors' reports to the General Meetings, reports of the statutory auditors, financial statements for the last three years and, more generally, all documents provided or made available to shareholders pursuant to the law may be viewed at Thales registered office.

Some of these documents are also available on the Group's website (<https://www.thalesgroup.com/en/investor/regulated-information>).

6.4.3 Other market securities

As of 31 December 2018, five of the Group's bonds were listed on Euronext Paris.

Their amounts and main characteristics are set out in section 6.2 of the consolidated financial statements (page 194).

6.5 HISTORY

1893

Compagnie Française Thomson-Houston (CFTH) established to exploit the patents of the US company Thomson-Houston Electric Corp. in France, in the field of power generation and transport.

1918

Compagnie Générale de Télégraphie Sans Fil (CSF), a pioneer in broadcasting, electroacoustics and radar technology, set up.

1968

CSF and the professional electronics businesses of Thomson-Brandt merge to form Thomson-CSF.

1982

Thomson-CSF nationalised.

1983

Civil telecommunications businesses sold to Compagnie Générale d'Électricité (now Alcatel-Lucent).

1987

Medical imaging business (CGR) sold to General Electric; semiconductor business merged with that of the Italian company SGS to form SGS-Thomson.

1989

Acquisition of the defence electronics business of the Philips group.

1997

Interest in SGS-Thomson (now STMicroelectronics) divested.

1998

Thomson-CSF privatised; Alcatel and Groupe Industriel Marcel Dassault (GIMD) contribute assets and become shareholders. Satellite businesses of Alcatel, Aerospatiale and Thomson-CSF merge to form Alcatel Space, jointly owned by Thomson-CSF (49%) and Alcatel (51%).

1999

Thomson-CSF acquires 100% control of Sextant Avionique, the avionics joint venture between Thomson-CSF and Aerospatiale (now Airbus Group).

2000

Takeover of Racal electronics in the United Kingdom. Thomson CSF changes its name to Thales.

2001

Thales sells its stake in Alcatel Space.

2007

Thales acquires the transport, security and space businesses of Alcatel-Lucent and sells its French naval surface business to DCNS. At the same time, acquisition of a 25% stake in DCNS from the French government.

2009

Acquisition by Dassault Aviation of Thales shares held by Alcatel-Lucent and GIMD. Dassault Aviation becomes a shareholder of Thales, with a 26% stake in the Company.

2011

Thales increases its interest in DCNS to 35%.

2014

Launch of the "Ambition 10" strategy.

2017

Thales intended offer for Gemalto

2019

Acquisition of Gemalto finalized on April 2, 2019.

CONSOLIDATED FINANCIAL STATEMENTS



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7.1 CONSOLIDATED FINANCIAL STATEMENTS

7.1.1 Consolidated profit and loss account

(in € millions)	Notes	2018	2017 ^(a)
Sales	Note 2	15,854.7	15,227.5
Cost of sales		(11,767.5)	(11,516.7)
Research and development expenses		(881.4)	(802.2)
Marketing and selling expenses		(1,097.6)	(1,069.5)
General and administrative expenses		(554.3)	(549.5)
Restructuring costs	Note 10.3	(48.3)	(81.1)
Amortisation of acquired intangible assets ^(b)	Note 4.2	(102.8)	(113.0)
Income from operations	Note 2	1,402.8	1,095.5
Disposal of assets, changes in scope of consolidation and other	Note 3.2	(73.0)	(81.5)
Impairment on non-current assets		—	—
Income of operating activities before share in net income of equity affiliates		1,329.8	1,014.0
Share in net income of equity affiliates		144.7	119.9
• of which, share in net income of joint ventures	Note 5.1	98.9	73.6
• of which, share in net income of associates	Note 5.2	45.8	46.3
Income of operating activities after share in net income of equity affiliates		1,474.5	1,133.9
Interest expense on gross debt		(26.5)	(16.3)
Interest income on cash and cash equivalents		19.6	21.3
Interest income (expense), net	Note 6.1	(6.9)	5.0
Other financial income (expense)	Note 6.1	(78.3)	(99.3)
Finance costs on pensions and other employee benefits	Note 9.3	(47.2)	(65.5)
Income tax	Note 7.1	(314.2)	(236.7)
NET INCOME		1,027.9	737.4
Attributable to:			
Shareholders of the parent company		981.8	679.8
Non-controlling interests		46.1	57.6
Basic earnings per share (in euros)	Note 8.2	4.62	3.21
Diluted earnings per share (in euros)	Note 8.2	4.60	3.19

(a) The 2017 financial statements have been restated to take into account the first implementation of the IFRS 15 standard. Restatements are described in Note 1.2.

(b) This item corresponds to the amortisation of acquired intangible assets (Purchase Price Allocation, PPA) of fully consolidated entities. The amortisation of PPA related to equity affiliates is included in the share in net income (loss) of equity affiliates and is detailed in Note 2.3.

7.1.2 Consolidated statement of comprehensive income

(in € millions)	2018			2017 ^(a)		
	Total attributable to:		Total	Total attributable to:		Total
	shareholders of the parent company	non-controlling interests		shareholders of the parent company	non-controlling interests	
NET INCOME	981.8	46.1	1,027.9	679.8	57.6	737.4
Currency translation adjustment ^(b)	(11.1)	1.9	(9.2)	(82.8)	(1.9)	(84.7)
Deferred tax (Note 7.2) ^(b)	—	—	—	—	—	—
Joint ventures (Note 5.1)	0.3	—	0.3	(7.9)	—	(7.9)
Associates (Note 5.2)	3.9	—	3.9	(17.5)	—	(17.5)
Net (Note 8.1)	(6.9)	1.9	(5.0)	(108.2)	(1.9)	(110.1)
Cash flow hedge ^(b)	(124.1)	1.8	(122.3)	385.6	17.2	402.8
Deferred tax (Note 7.2) ^(b)	36.2	(0.5)	35.7	(107.9)	(5.5)	(113.4)
Joint ventures (Note 5.1)	11.6	—	11.6	(3.5)	—	(3.5)
Associates (Note 5.2)	6.4	—	6.4	(2.3)	—	(2.3)
Net (Note 8.1)	(69.9)	1.3	(68.6)	271.9	11.7	283.6
Available for sale financial assets ^(b)	—	—	—	(1.0)	—	(1.0)
Joint ventures (Note 5.1)	—	—	—	(6.7)	—	(6.7)
Net	—	—	—	(7.7)	—	(7.7)
Items that may be reclassified to income	(76.8)	3.2	(73.6)	156.0	9.8	165.8
Actuarial gains (losses) on pensions ^(b)	293.9	0.6	294.5	52.8	(3.4)	49.4
Deferred tax (Note 7.2) ^(b)	(7.0)	(0.1)	(7.1)	2.9	0.3	3.2
Joint ventures (Note 5.1)	(0.8)	—	(0.8)	1.9	—	1.9
Associates (Note 5.2)	(0.2)	—	(0.2)	(0.7)	—	(0.7)
Net	285.9	0.5	286.4	56.9	(3.1)	53.8
Financial assets at fair value	—	—	—	—	—	—
Items that will not be reclassified to income	285.9	0.5	286.4	56.9	(3.1)	53.8
Other comprehensive income (loss) for the period, net of tax	209.1	3.7	212.8	212.9	6.7	219.6
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	1,190.9	49.8	1,240.7	892.7	64.3	957.0

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

(b) Fully consolidated entities.

7.1.3 Consolidated statement of changes in equity

(in € millions)	Number of shares outstanding (thousands)	Share capital	Additional paid-in capital	Retained earnings ^(a)	Cash flow hedge	AFS investments	Cumulative translation adjustment	Treasury shares	Total attributable to shareholders of the parent company	Non-controlling interests	Total equity
AT 31 DECEMBER 2016 PUBLISHED	211,445	636.6	4,036.9	376.5	(250.7)	12.4	(110.0)	(61.6)	4,640.1	225.9	4,866.0
Impact of IFRS 15 standard (Note 1.2)	–	–	–	(251.1)	–	–	–	–	(251.1)	(4.2)	(255.3)
At 1 January 2017 restated	211,445	636.6	4,036.9	125.4	(250.7)	12.4	(110.0)	(61.6)	4,389.0	221.7	4,610.7
Net income	–	–	–	679.8	–	–	–	–	679.8	57.6	737.4
Other comprehensive income	–	–	–	56.9	271.9	(7.7)	(108.2)	–	212.9	6.7	219.6
Total comprehensive income for 2017^(b)	–	–	–	736.7	271.9	(7.7)	(108.2)	–	892.7	64.3	957.0
Employee share issues	464	1.4	16.3	–	–	–	–	–	17.7	–	17.7
Parent company dividend distribution (Note 8.1)	–	–	–	(348.9)	–	–	–	–	(348.9)	–	(348.9)
Third-party share in dividend distribution of subsidiaries	–	–	–	–	–	–	–	–	–	(68.1)	(68.1)
Share-based payments (Note 9.4)	–	–	–	21.8	–	–	–	–	21.8	–	21.8
Acquisitions/disposals of treasury shares (Note 8.1)	181	–	–	(65.4)	–	–	–	9.1	(56.3)	–	(56.3)
Other	–	–	–	5.7	–	–	–	–	5.7	(1.1)	4.6
Changes in scope of consolidation	–	–	–	–	–	–	–	–	–	–	–
AT 31 DECEMBER 2017	212,090	638.0	4,053.2	475.3	21.2	4.7	(218.2)	(52.5)	4,921.7	216.8	5,138.5
Impact of IFRS 9 standard (Note 1.2)	–	–	–	(10.5)	–	(4.7)	–	–	(15.2)	–	(15.2)
At 1 January 2018 restated	212,090	638.0	4,053.2	464.8	21.2	–	(218.2)	(52.5)	4,906.5	216.8	5,123.3
Net income	–	–	–	981.8	–	–	–	–	981.8	46.1	1,027.9
Other comprehensive income	–	–	–	285.9	(69.9)	–	(6.9)	–	209.1	3.7	212.8
Total comprehensive income for 2018	–	–	–	1,267.7	(69.9)	–	(6.9)	–	1,190.9	49.8	1,240.7
Employee share issues	445	1.3	14.9	–	–	–	–	–	16.2	–	16.2
Parent company dividend distribution (Note 8.1)	–	–	–	(382.1)	–	–	–	–	(382.1)	–	(382.1)
Third-party share in dividend distribution of subsidiaries	–	–	–	–	–	–	–	–	–	(41.7)	(41.7)
Share-based payments (Note 9.4)	–	–	–	16.3	–	–	–	–	16.3	–	16.3
Acquisitions/disposals of treasury shares (Note 8.1)	(79)	–	–	(21.1)	–	–	–	(14.8)	(35.9)	–	(35.9)
Other	–	–	–	(12.3)	–	–	–	–	(12.3)	–	(12.3)
AT 31 DECEMBER 2018	212,456	639.3	4,068.1	1,333.3	(48.7)	–	(225.1)	(67.3)	5,699.6	224.9	5,924.5

(a) This item includes actuarial gains and losses on net pension obligations, recognised directly in equity and not subsequently reclassified to profit and loss (- €1,915.5 million at end 2017, - €1,621 million at end 2018).

(b) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

7.1.4 Consolidated balance sheet

Assets

(in € millions)	Notes	31/12/2018	31/12/2017 ^(a)	01/01/2017 ^(a)
Goodwill, net	Note 4.1	3,445.2	3,447.2	3,424.4
Other intangible assets, net	Note 4.2	769.3	883.5	963.5
Property, plant and equipment, net	Note 4.2	1,808.9	1,819.9	1,800.8
Investments in joint ventures	Note 5.1	1,086.3	1,001.9	985.2
Investments in associates	Note 5.2	220.0	210.1	219.5
Non-consolidated investments	Note 6.3	123.9	87.7	82.3
Other non-current financial assets	Note 6.3	169.9	166.5	138.3
Non-current derivatives – assets	Note 6.6	16.7	17.0	27.9
Deferred tax assets	Note 7.3	891.7	986.5	1,077.9
NON-CURRENT ASSETS		8,531.9	8,620.3	8,719.8
Inventories, work in progress and set-up costs	Note 10.1	3,080.6	3,158.9	2,999.6
Contract assets	Note 10.2	2,538.4	2,301.4	2,577.0
Advances to suppliers	Note 10	652.3	451.8	348.3
Accounts, notes and other current receivables	Note 10.4	4,671.7	4,008.5	4,188.4
Current derivatives – assets	Note 6.6	91.6	254.4	161.7
Total current operating assets		11,034.6	10,175.0	10,275.0
Current tax receivable	Note 7.3	45.8	36.6	59.8
Current financial assets	Note 6.2	256.0	332.0	265.9
Current derivatives – assets	Note 6.6	–	3.1	–
Cash and cash equivalents	Note 6.2	5,637.5	4,282.7	3,616.9
Total current financial assets		5,893.5	4,617.8	3,882.8
CURRENT ASSETS		16,973.9	14,829.4	14,217.6
TOTAL ASSETS		25,505.8	23,449.7	22,937.4

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

Equity and liabilities

(in € millions)	Notes	31/12/2018	31/12/2017 ^(a)	01/01/2017 ^(a)
Capital, additional paid-in capital and other reserves		5,992.0	5,192.4	4,560.6
Cumulative translation adjustments		(225.1)	(218.2)	(110.0)
Treasury shares		(67.3)	(52.5)	(61.6)
Total attributable to shareholders of the parent company		5,699.6	4,921.7	4,389.0
Non-controlling interests		224.9	216.8	221.7
TOTAL EQUITY	Note 8.1	5,924.5	5,138.5	4,610.7
Long-term loans and borrowings	Note 6.2	2,408.5	953.5	1,433.7
Non-current derivatives – liabilities	Note 6.6	13.1	2.6	–
Pensions and other long-term employee benefits	Note 9.3	2,326.7	2,674.3	2,785.8
Deferred tax liabilities	Note 7.3	216.4	230.9	287.0
NON-CURRENT LIABILITIES		4,964.7	3,861.3	4,506.5
Contract liabilities	Note 10.2	6,108.2	6,366.0	6,393.3
Reserves for contingencies	Note 10.3	1,730.8	1,782.4	1,605.3
Accounts, notes and other current payables	Note 10.4	6,148.5	5,360.5	5,172.9
Current derivatives – liabilities	Note 6.6	273.7	179.7	478.3
Total current operating liabilities		14,261.2	13,688.6	13,649.8
Current tax payable	Note 7.3	34.2	54.0	59.0
Short-term loans and borrowings	Note 6.2	321.2	707.3	111.4
CURRENT LIABILITIES		14,616.6	14,449.9	13,820.2
TOTAL EQUITY AND LIABILITIES		25,505.8	23,449.7	22,937.4

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

7.1.5 Consolidated statement of cash flows

(in € millions)	Notes	2018	2017 ^(a)
Net income		1,027.9	737.4
Add (deduct):			
Income tax expense (gain)		314.2	236.7
Net interest expenses (income)		6.9	(5.0)
Share in net income of equity affiliates		(144.7)	(119.9)
Dividends received from equity-accounted affiliates: joint ventures		43.0	38.5
Dividends received from equity-accounted affiliates: associates		44.1	40.8
Depreciation and amortisation of property, plant and equipment and intangible assets	Note 4.2	382.2	391.1
Depreciation and amortisation of acquired intangible assets	Note 4.2	102.8	113.0
Provisions for pensions and other employee benefits	Note 9.3	183.9	191.7
Loss (gain) on disposal of assets and other	Note 3.2	73.0	81.5
Provisions for restructuring, net	Note 10.3	(26.0)	(27.0)
Other items		(75.5)	(82.8)
Operating cash flows before working capital changes, interest and tax		1,931.8	1,596.0
Change in working capital and reserves for contingencies	Note 10	(518.8)	402.5
Cash contributions to pension plans (defined benefit plans) and other long-term employee benefits:	Note 9.3	(227.2)	(202.9)
• UK deficit payment		(98.3)	(82.3)
• Recurring contributions/benefits		(128.9)	(120.6)
Interest paid		(23.3)	(14.0)
Interest received		21.3	22.3
Income tax paid		(91.1)	(90.6)
NET CASH FLOW FROM OPERATING ACTIVITIES	- I -	1,092.7	1,713.3
Acquisitions of property, plant and equipment and intangible assets		(393.2)	(438.9)
Disposals of property, plant and equipment and intangible assets		12.9	8.2
Net operating investments		(380.3)	(430.7)
Investments in subsidiaries and affiliates, net	Note 6.4	(71.7)	(121.4)
Disposals of subsidiaries and affiliates, net	Note 6.4	10.6	41.9
Decrease (increase) in loans and non-current financial assets		18.8	(26.7)
Decrease (increase) in current financial assets		73.8	(70.8)
Net financial investments		31.5	(177.0)
NET CASH FLOW USED IN INVESTING ACTIVITIES	- II -	(348.8)	(607.7)
Parent company dividend distribution		(382.1)	(348.9)
Third party share in dividend distribution of subsidiaries		(41.8)	(68.1)
Exercise of share subscription options and (purchase) sale of treasury shares		(19.4)	(38.3)
Issuance of debt		1,585.5	107.0
Repayment of debt		(525.0)	(32.9)
NET CASH FLOW FROM/USED IN FINANCING ACTIVITIES	- III -	617.2	(381.2)
Effect of exchange rate changes and other	- IV -	(6.3)	(58.6)
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	I + II + III + IV	1,354.8	665.8
Cash and cash equivalents at beginning of period		4,282.7	3,616.9
CASH AND CASH EQUIVALENTS AT END OF PERIOD		5,637.5	4,282.7

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

The Group's net cash position and the changes from one period to the next are presented in notes 6.2 and 6.4.

7.1.6 Notes to the consolidated financial statements

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All monetary amounts included in these notes are expressed in millions of euros.

NOTE 1. ACCOUNTING STANDARDS FRAMEWORK

Thales's consolidated financial statements for the year ending 31 December 2018 were approved and authorised for issue by its Board of Directors on 25 February 2019. In accordance with French law, the financial statements will be deemed to be final once they have been adopted by the shareholders of the Group at the Annual General Meeting to be held on 15 May 2019.

Thales (parent company) is a French publicly traded joint-stock company (*société anonyme*) registered with the Nanterre Trade and Companies' Register under number 552 059 024.

1.1 Basis of preparation for the 2018 consolidated financial statements

Thales's consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) approved by the European Union at 31 December 2018⁽¹⁾.

These accounting policies, described in Note 13, are consistent with those applied by the Group for the year ending 31 December 2017, with the exception of those resulting from the first application of IFRS 15

(revenue from contracts with customers) and IFRS 9 (financial instruments) as described in Note 1.2 below.

IFRIC interpretation 22 (foreign currency transactions and advance consideration) and amendments to IFRS 2 (share-based payments), mandatorily applicable as from 1 January 2018, have no impact on the Group's financial statements.

1.2 Implementation of IFRS 15 and IFRS 9

a) Impact of the IFRS 15 standard

Accounting policies related to the recognition of revenue within the Group are detailed in Note 13.c. Thales has opted for the full retrospective approach; consequently, the 2017 comparative financial statements have been restated with the impacts described below. The practical simplifications stipulated by the new standard as part of the transition have been applied. IFRS 15 has no impact on cash flows presented in the cash flow statement.

Balance sheet at 1 January 2017	01/01/2017 Published	IFRS 15 impacts	01/01/2017 Restated
Non-current assets	8,623.4	96.4	8,719.8
Inventories, work in progress and set-up costs	2,734.6	265.0	2,999.6
Construction contracts – assets	2,331.5	(2,331.5)	–
Contract assets	–	2,577.0	2,577.0
Advances to suppliers	348.3	–	348.3
Accounts, notes and other receivables	4,547.5	(359.1)	4,188.4
Current derivatives – assets	161.7	–	161.7
Current operating assets	10,123.6	151.4	10,275.0
Current tax receivables	59.8	–	59.8
Current financial assets	3,882.8	–	3,882.8
TOTAL ASSETS	22,689.6	247.8	22,937.4

(1) Available at: https://ec.europa.eu/info/law/international-accounting-standards-regulation-ec-no-1606-2002_en.

Balance sheet at 1 January 2017	01/01/2017 Published	IFRS 15 impacts	01/01/2017 Restated
Total equity	4,866.0	(255.3)	4,610.7
Non-current liabilities	4,514.1	(7.6)	4,506.5
Construction contracts – liabilities	(1,139.4)	1,139.4	–
Advances received from customers	(4,478.4)	4,478.4	–
Contract liabilities	–	(6,393.3)	(6,393.3)
Reserves for contingencies	(1,037.0)	(568.3)	(1,605.3)
Accounts, notes and other payables	(6,006.0)	833.1	(5,172.9)
Current derivatives – liabilities	(478.3)	–	(478.3)
Current operating liabilities	13,139.1	510.7	13,649.8
Current tax payable	59.0	–	59.0
Short-term loans and borrowings	111.4	–	111.4
TOTAL EQUITY AND LIABILITIES	22,689.6	247.8	22,937.4

Balance sheet at 31 December 2017	31/12/2017 Published	IFRS 15 impacts	31/12/2017 Restated
Non-current assets	8,511.0	109.3	8,620.3
Inventories, work in progress and set-up costs	2,803.4	355.5	3,158.9
Construction contracts – assets	2,306.0	(2,306.0)	–
Contract assets	–	2,301.4	2,301.4
Advances to suppliers	451.8	–	451.8
Accounts, notes and other receivables	4,351.1	(342.6)	4,008.5
Current derivatives – assets	254.4	–	254.4
Current operating assets (Note 10)	10,166.7	8.3	10,175.0
Current tax receivables	36.6	–	36.6
Current financial assets	4,617.8	–	4,617.8
TOTAL ASSETS	23,332.1	117.6	23,449.7

Total equity	5,555.5	(417.0)	5,138.5
Non-current liabilities	3,868.0	(6.7)	3,861.3
Construction contracts – liabilities	(1,278.3)	1,278.3	–
Advances received from customers	(4,162.6)	4,162.6	–
Contract liabilities	–	(6,366.0)	(6,366.0)
Reserves for contingencies	(1,134.7)	(647.7)	(1,782.4)
Accounts, notes and other payables	(6,392.0)	1,031.5	(5,360.5)
Current derivatives – liabilities	(179.7)	–	(179.7)
Current operating liabilities (Note 10)	13,147.3	541.3	13,688.6
Current tax payable	54.0	–	54.0
Short-term loans and borrowings	707.3	–	707.3
TOTAL EQUITY AND LIABILITIES	23,332.1	117.6	23,449.7

Consolidated P&L account, Full Year 2017	2017 Published	IFRS 15 impacts	2017 Restated
Sales	15,795.4	(567.9)	15,227.5
Income from operations	1,257.8	(162.3)	1,095.5
Income of operating activities after share in net income of equity affiliates	1,311.1	(177.2)	1,133.9
EBIT (Note 2.3)	1,542.6	(177.2)	1,365.4
Net income	887.1	(149.7)	737.4
• of which, attributable to shareholders of the parent company	821.7	(141.9)	679.8
• of which, attributable to non-controlling interests	65.4	(7.8)	57.6
Net income	887.1	(149.7)	737.4
Other comprehensive net income (loss), net of tax	212.9	6.7	219.6
Total comprehensive income	1,100.0	(143.0)	957.0

b) Implementation of IFRS 9 (financial instruments)

On 29 November 2016, the European Union adopted IFRS 9 "Financial instruments", superseding IAS 39 "Financial instruments: recognition and measurement". This new standard, mandatory as from 1 January 2018, covers three areas:

Area 1: IFRS 9 introduces a single approach to classification and measurement of financial assets, based on the characteristics of the financial instruments and on the Group's management intention.

The application of IFRS 9 primarily means that the former "available for sale financial assets" category, which allowed under IAS 39 to account for investments at fair value through Other Comprehensive Income (OCI), with reclassification to the income statement in case of disposal or impairment of the underlying asset, no longer exists.

Under IFRS 9, financial assets with expected cash flows that do not solely correspond to principal and interest payment (SPPI) will be carried at fair value through the income statement. Nevertheless, IFRS 9 introduces an irrevocable option to be exercised at the origin, investment by investment, which allows to account for those investments at fair value through OCI, with no further reclassification to the income statement, even in case of disposal. Only dividends must remain accounted for through the income statement.

At the transition date, this latter option has been chosen by the Group: non-consolidated investments have been classified in the category "fair value through OCI" with no further reclassification to the income statement. Consequently, subsequent changes in fair value and gains (losses) on disposal will be directly accounted for through shareholders' equity, with no impact on the income statement.

At 1 January 2018, this area of IFRS 9 has no impact on Group shareholders' equity.

Area 2: IFRS 9 introduces a new impairment model, with a shift from an "incurred loss" model to an "expected loss" model, based on expected credit losses.

Considering the profile of the Group's customers, this new area has no significant impact on Group accounts at 1 January 2018 (€-15.2 million in equity).

Area 3: IFRS 9 implementation has led the Group to change the accounting treatment of the time value of options that are used to hedge commercial contracts. The time value of foreign exchange options documented as hedges is henceforth mandatorily considered as a cost of hedging: changes in fair value of time value are accounted for through OCI, with reclassification to the financial result in line with the hedged item. At the transition date, the impact of this retrospective restatement is close to nil.

The Group has chosen to take advantage of the new possibilities offered by IFRS 9 to change the accounting for swap points of foreign exchange derivatives subscribed as of 2018 to hedge financial assets/liabilities: the cost of hedging is spread over the duration of the financial asset/liability.

However, the Group will continue to account at fair value through financial result for the swap points related to forward foreign currency contracts used to hedge commercial contracts.

Thales has opted for the retrospective approach as from 1 January 2018, with no restatement of the 2017 consolidated financial statements.

1.3 New standards mandatory after 31 December 2018

The following standards have been adopted by the IASB and will be effective for the periods indicated below pending their adoption by the European Union (as applicable). The assessment of the potential impacts of these new standards on the Group's consolidated financial statements is underway.

Accounting standard	Description	First-time application	EU endorsement
IFRS 16 (Leases)	Supersedes IAS 17. See below.	1 January 2019	Yes
IFRIC 23 (Uncertainty over income tax treatments)	Refers to the recognition and measurement of financial risks related to income tax.	1 January 2019	Yes
Amendments to IAS 28 (Long-term Interests in associates and Joint Ventures)	Clarifies the rules applicable to long-term investments in an associate, particularly as regards depreciation and amortisation.	1 January 2019	In progress
Annual Improvements to IFRS standards, 2015-2017 cycle	Minor amendments to IAS 12, IAS 23, IFRS 11 and IFRS 3.	1 January 2019	In progress
Amendments to IAS 19 (Plan amendment, curtailment or settlement)	Clarifies the rules of measurement and recognition related to these events.	1 January 2019	In progress
Amendments to IFRS 3	Clarifies the definition of a "business".	1 January 2020	In progress
Amendments to IAS 1 and IAS 8 (Definition of material)	Clarifies the definition of the term "significant".	1 January 2020	In progress
Amendments of references to IFRS conceptual framework	Updates the references to the conceptual framework of certain IFRS standards.	1 January 2020	In progress

Implementation of IFRS 16 (Leases)

As from 1 January 2019, the Group will apply the new IFRS 16 standard "Leases". This standard will replace IAS 17 and the associated IFRIC and SIC interpretations.

IFRS 16 introduces a single lessee accounting model that leads to recognize a financial liability representing the lessee's obligation (based on discounted future payments), and a right of use asset. The right of use asset is then amortised over the lease term.

The new standard will be applied according to the "modified retrospective" method at 1 January 2019. Consequently, the 2018 comparative financial statements, as included in the 2019 consolidated financial statements, will not be restated.

Inventory, analysis and valuation of lease contracts are currently underway, most contracts concerning real estate leases.

The impact of IFRS 16 on the Group's financial statements will depend on the composition of the contract portfolio, on borrowing rates used to discount future payments, and to the estimated lease terms (including early termination or renewal options whose exercise is reasonably certain). Assuming a constant scope of consolidation and exchange rate, the Group anticipates the following:

- a non-material impact on the main aggregates of the 2019 income statement (income from operations, EBIT, net income);
- a lease liability estimated to be between €1.5 and €1.7 billion at 1 January 2019, the transition date, and a right of use asset of a comparable amount;
- a favourable effect on net cash flow from operating activities, offset by a decline in net cash flow from financing activities (corresponding to the repayment of the lease debt).

1.4 Translation

The main exchange rates used to translate financial statements of entities with a functional currency different from the euro are as follows:

	31 December 2018		31 December 2017		31 December 2016	
	Closing rate	Average rate	Closing rate	Average rate	Closing rate	Average rate
Euro						
Australian dollar	1.6220	1.5832	1.5346	1.4795	1.4596	1.4852
Pound sterling	0.8945	0.8860	0.8872	0.8757	0.8562	0.8227
U.S. dollar	1.1450	1.1793	1.1993	1.1370	1.0541	1.1032

1.5 Main sources of estimates

The preparation of the Group's consolidated financial statements involves making estimates and assumptions that have an impact on the assessment of the Group's performance and its consolidated assets and liabilities. These estimates are based on past experience and factor in the economic conditions prevailing at the end of the reporting period and any information available as of the date at which the financial statements are prepared.

In today's global economic environment, the degree of volatility and subsequent lack of visibility are particularly high. Future facts and circumstances could lead to changes in these estimates or assumptions which could affect the Group's financial situation, profit and loss and/or cash flows, notably with regard to:

Recognition of revenue over time (Note 10)

A very significant part of the Group's revenue and current operating income stems from contracts recognised according to the percentage of completion method. These contracts often span several financial years. In the accounting closing process, the recognition of revenue and operating margin relating to these contracts depends mainly:

- on estimates of revenue and margin at completion, including provisions for technical and commercial risks;
- on costs incurred to date compared to the total costs expected at completion.

Monitoring of costs incurred to date and estimates of figures at completion are based, for each contract, on the Group's internal systems and procedures, with project managers playing a key role. These estimates are reviewed regularly by the Operations and Finance departments, under the supervision of the Group's corporate management, particularly at each period-end reporting.

Litigation (Note 11)

The Group conducts its business in France and abroad in complex, evolving legal and regulatory environments. As a result, it is exposed to technical and commercial disputes.

The Group regularly identifies and reviews all current commercial, civil or criminal litigation and pre-litigation, and recognises any accounting provisions that it considers to be reasonable. Uncertainties concerning litigation in progress are described in Note 11.

Business combinations

Business combinations are accounted for in accordance with the purchase accounting method described in Note 13-b: thus, on the date of the takeover of a company, the acquiree's identifiable assets and liabilities are measured at their fair value. These valuations are performed by independent experts who base their work on assumptions and must estimate the effects of future events, which are uncertain at the acquisition date.

Goodwill (Note 4.1)

Goodwill is subject to impairment tests. The recoverable amount of goodwill is assessed based on forecasts extracted from the strategic plans prepared in accordance with Group procedures. Sensitivity tests are carried out on key assumptions in order to lend greater weight to the conclusions reached.

Pensions and other long-term employee benefits (Note 9.3)

Pensions and other long-term employee benefit commitments are estimated on statistical and actuarial bases in accordance with the policies outlined in Note 13-j. Actuarial assumptions made by the Group (discount rates, inflation rate, mortality tables, etc.) are reviewed each year with the actuaries.

Deferred tax assets (Note 7)

Deferred tax assets are recognised for tax loss carry-forwards and temporary differences between the book value and the tax value of assets and liabilities. Recovery of these assets is assessed on the basis of forecasts extracted from the strategic plans of each of the tax groups considered, generally over a period of five years.

NOTE 2. SEGMENT INFORMATION

2.1 Business segments

The business segments presented by the Group are as follows:

- the **Aerospace** segment, which combines the "Avionics" and "Space" Global Business Units that develop on-board systems and services for private sector customers (aircraft manufacturers, airlines, satellite operators, etc.) and for government/defence customers (national governments, space agencies and other semi-public organisations);
- the **Transport** segment, which comprises the "Ground Transportation Systems" Global Business Unit that develops systems and services for an exclusively civilian customer base of ground transportation infrastructure operators;

- the **Defence and Security** segment, which combines the "Secure Communications and Information Systems", "Land and Air Systems" and "Defence Mission Systems" Global Business Units that develop equipment, systems and services for armed forces and for the protection of networks and infrastructure, mainly for a government/defence customer base.

In both 2017 and 2018, the Group's business is equally divided between civilian customers (50%) and military customers (50%).

2.2 Sales

2018	Aerospace	Transport	Defence & Security	Other	Thales
Sales by destination:					
Europe	3,564.8	1,083.7	4,056.3	30.7	8,735.5
North America	769.5	60.4	534.9	2.2	1,367.0
Australia and New Zealand	48.8	39.3	769.8	–	857.9
Total mature markets	4,383.1	1,183.4	5,361.0	32.9	10,960.4
Emerging markets ^(a)	1,396.4	817.1	2,658.6	22.2	4,894.3
TOTAL	5,779.5	2,000.5	8,019.6	55.1	15,854.7
Revenue recognition method:					
Over time	3,615.4	1,734.2	6,225.3	21.1	11,596.0
At a point in time	2,164.1	266.3	1,794.3	34.0	4,258.7
TOTAL	5,779.5	2,000.5	8,019.6	55.1	15,854.7

2017 restated (IFRS 15)	Aerospace	Transport	Defence & Security	Other	Thales
Sales by destination:					
Europe	3,393.7	1,020.0	3,881.4	44.7	8,339.8
North America	873.5	59.8	458.5	–	1,391.8
Australia and New Zealand	56.2	38.9	743.3	–	838.4
Total mature markets	4,323.4	1,118.7	5,083.2	44.7	10,570.0
Emerging markets ^(a)	1,423.9	604.6	2,606.5	22.5	4,657.5
TOTAL	5,747.3	1,723.3	7,689.7	67.2	15,227.5
Revenue recognition method:					
Over time	3,708.4	1,550.2	5,941.1	18.1	11,217.8
At a point in time	2,038.9	173.1	1,748.6	49.1	4,009.7
TOTAL	5,747.3	1,723.3	7,689.7	67.2	15,227.5

(a) Emerging markets: all countries outside Europe, North America, Australia and New Zealand.

2.3 Commercial activity and EBIT by segment

In order to monitor the operating and financial performance of Group entities, the Group's management regularly considers certain key non-GAAP indicators as defined in Note 13-a, which enable them to exclude certain non-operating and non-recurring items.

In particular, **EBIT**, presented by business segment below, corresponds to income from operations plus the share in net income of equity affiliates, excluding expenses related to business combinations (amortisation of acquisition-related intangible assets (PPA) and other expenses directly linked to business combinations).

2018	Aerospace	Transport	Defence & Security	Oth. elim. and unallocated ^(a)	Thales
Order book – non-Group at 31/12	7,984.8	4,143.5	20,130.9	69.5	32,328.7
Order intake – non-Group	5,345.7	1,858.2	8,775.1	55.3	16,034.3
Sales – non-Group	5,779.5	2,000.5	8,019.6	55.1	15,854.7
Sales – intersegment	66.9	5.7	289.6	(362.2)	–
Total sales	5,846.4	2,006.2	8,309.2	(307.1)	15,854.7
EBIT	579.7	88.3	1,007.2	10.0	1,685.2
• of which, Naval Group	–	–	–	62.7	62.7
• excluding Naval Group	579.7	88.3	1,007.2	(52.7)	1,622.5
Capital expenditures	128.7	10.9	131.4	122.2	393.2
Dep. and amort. of property, plant and equipment and intangible assets	133.9	11.2	122.6	114.5	382.2

2017 ^(b)	Aerospace	Transport	Defence & Security	Oth. elim. and unallocated ^(a)	Thales
Order book – non-Group at 31/12	8,259.9	4,289.3	19,451.4	63.6	32,064.2
Order intake – non-Group	5,237.5	1,780.7	7,856.5	56.5	14,931.2
Sales – non-Group	5,747.3	1,723.3	7,689.7	67.2	15,227.5
Sales – intersegment	92.1	5.9	294.2	(392.2)	–
Total sales	5,839.4	1,729.2	7,983.9	(325.0)	15,227.5
EBIT	567.0	56.6	756.6	(14.8)	1,365.4
• of which, Naval Group	–	–	–	32.8	32.8
• excluding Naval Group	567.0	56.6	756.6	(47.6)	1,332.6
Capital expenditures	137.4	7.5	140.3	153.7	438.9
Dep. and amort. of property, plant and equipment and intangible assets	166.4	10.0	103.8	110.9	391.1

(a) Order book, order intake and sales included in the "Other, elim. and unallocated" column relate to corporate activities (Thales parent company, Thales Global Services, Group R&D centres, facilities management), and to the elimination of transactions between business segments.

(b) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

Unallocated EBIT includes the Group's share (35%) in the net income of Naval Group, corporate income from operations which is not assigned to the segments, and the cost of vacant premises. Other costs (mainly the costs of foreign holding companies not invoiced, and expenses related to share-based payments) are reallocated to business segments proportionally to their respective non-Group sales.

At the end of 2018, the order book reached €32,328.7 million. Around 80% of this amount is expected to convert into sales within three years.

The reconciliation between income from operations and EBIT is analysed as follow:

	2018	2017 ^(a)
Income from operations	1,402.8	1,095.5
Share in net income of equity affiliates	144.7	119.9
PPA amortisation related to fully consolidated entities	102.8	113.0
PPA amortisation related to equity affiliates	27.0	19.2
Expenses directly linked to business combinations	7.9	17.8
EBIT	1,685.2	1,365.4

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

NOTE 3. IMPACT OF CHANGES IN SCOPE OF CONSOLIDATION

3.1 Main changes in scope of consolidation

In 2018:

No material change in the scope of consolidation occurred during the year. Progress on the ongoing acquisition of Gemalto is described in Note 12.

In 2017:

In September 2017, Thales finalised the acquisition of the US Company Guavus, one of the pioneers of real-time "big data" analytics, for a maximum enterprise value of \$215 million, subject to the achievement of significant sales growth targets. The net cash outflow amounted to \$109.1 million (€90.5 million) at the closing date. The purchase price was allocated to amortisable intangible assets, and the residual goodwill amounted to \$72.2 million (€60 million). The Company is fully consolidated.

3.2 Disposal of assets, changes in scope of consolidation and other

	2018	2017
Disposal of investments	12.4	19.0
Identity management business	3.7	16.5
Other disposal of investments	8.7	2.5
Acquisition-related fees (consultants, legal counsel, etc.)	(62.7)	(17.7)
Disposal of real estate and other tangible and intangible assets	5.2	2.6
Impact of settlements/amendments to pension plans (Note 9.3)	(27.9)	(21.2)
Commercial litigation/Republic of China	–	(64.2)
TOTAL	(73.0)	(81.5)

NOTE 4. PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

4.1 Goodwill

a) Change in goodwill

Goodwill is allocated to cash-generating units (CGUs) or groups of CGUs corresponding to Thales's Global Business Units (GBU). The changes in goodwill attributable to fully consolidated subsidiaries are presented below.

	01/01/2018	Acquisitions	Disposals	Impairment	Changes in exchange rates and other	31/12/2018
Avionics	472.2	–	–	–	(8.4)	463.8
Space	488.6	–	–	–	0.6	489.2
Aerospace	960.8	–	–	–	(7.8)	953.0
Transport	875.3	–	–	–	–	875.3
Secure Communications & Information Systems	842.0	3.5	–	–	5.1	850.6
Land and Air Systems	309.6	–	–	–	(0.3)	309.3
Defence Mission Systems	459.5	–	–	–	(2.5)	457.0
Defence and Security	1,611.1	3.5	–	–	2.3	1,616.9
TOTAL	3,447.2	3.5	–	–	(5.5)	3,445.2

	01/01/2017	Acquisitions	Disposals	Impairment	Changes in exchange rates and other	31/12/2017
Avionics	476.1	11.3	—	—	(15.2)	472.2
Space	481.8	8.6	—	—	(1.8)	488.6
Aerospace	957.9	19.9	—	—	(17.0)	960.8
Transport	875.3	—	—	—	—	875.3
Secure Communications & Information Systems	819.4	60.4 ^(a)	(7.0)	—	(30.8)	842.0
Land and Air Systems	309.8	—	—	—	(0.2)	309.6
Defence Mission Systems	462.0	—	—	—	(2.5)	459.5
Defence and Security	1,591.2	60.4	(7.0)	—	(33.5)	1,611.1
TOTAL	3,424.4	80.3	(7.0)	—	(50.5)	3,447.2

(a) Guavus acquisition: residual amount after purchase price allocation.

b) Impairment tests

Goodwill is subject to annual impairment tests in accordance with the Group's budgetary timetable. Value in use is determined on the basis of discounted future operating cash flows over a three-year period and a terminal value. Calculation is based on data from the strategic plans prepared in accordance with Group procedures. In certain specific cases (recent acquisitions, non-typical annual results, etc.), the terminal value is determined based on forecasts over an appropriate period of time.

At end 2018, impairment tests were performed with the assumption of an 8% discount rate for all CGUs, considering that CGUs presented similar levels of risk and that specific CGU risks were factored into forecasts. At end 2017, the rate used was 8.5%.

The assumptions used concern growth in sales and terminal values. They are based on reasonable estimations in line with specific data available for each business segment (usually, terminal value is based on average income from operations over the three years of the strategic plan, with growth capped at 2%).

At end 2018, the overall value in use of Group CGUs was higher than its carrying amount.

c) Sensitivity of values in use

The Group also tests the sensitivity of values in use based on reasonable changes in key assumptions. At end 2018, a 1-point increase in the discount rate, a 1-point decrease in the growth rate or a 2-point decrease in operating profitability of Group CGUs would not trigger any additional impairment.

4.2 Plant, property and equipment and other intangible assets

a) Change in net assets

	Acquired intangible assets (PPA)	Development costs	Other intangible assets	Property, plant and equipment	Total
Net value at 1 January 2017^(a)	773.9	79.3	110.3	1,800.8	2,764.3
Acquisitions/ increases	—	10.4	55.5	373.0	438.9
Disposals	—	—	—	(8.2)	(8.2)
Amortisation of acquisition-related intangible assets (PPA)	(113.0)	—	—	—	(113.0)
Other depreciations and amortisations	—	(35.0)	(40.5)	(315.6)	(391.1)
Changes in scope, exchange rates and other	33.7	(2.5)	11.4	(30.1)	12.5
Net value at 31 December 2017^(a)	694.6	52.2	136.7	1,819.9	2,703.4
Acquisitions/ increases	—	15.6	53.8	323.8	393.2
Disposals	—	—	—	(12.9)	(12.9)
Amortisation of acquisition-related intangible assets (PPA)	(102.8)	—	—	—	(102.8)
Other depreciations and amortisations	—	(16.3)	(49.7)	(316.2)	(382.2)
Changes in scope, exchange rates and other	13.1	(20.7)	(7.2)	(5.7)	(20.5)
NET VALUE AT 31 DECEMBER 2018	604.9	30.8	133.6	1,808.9	2,578.2

(a) 2017 figures have been restated to take into account the impact of IFRS 15 standard.

b) Breakdown by item

			31/12/2018	31/12/2017 ^(a)
	Gross	Depr., amort., and impairment	Net	Net
Technologies acquired	863.3	(471.6)	391.7	433.4
Customer relationships acquired	559.5	(362.7)	196.8	233.5
Order book acquired	273.7	(262.3)	11.4	18.0
Other intangible assets	72.0	(67.0)	5.0	9.7
Acquired intangible assets (business combinations)	1,768.5	(1,163.6)	604.9	694.6
Development costs	863.5	(832.7)	30.8	52.2
Other intangible assets	801.5	(667.9)	133.6	136.7
Intangible assets	3,433.5	(2,664.2)	769.3	883.5
Land	52.4	(1.0)	51.4	51.8
Buildings	1,747.9	(1,026.6)	721.3	757.6
Technical facilities, industrial equipment and tooling	2,563.9	(1,980.0)	583.9	615.4
Other property, plant and equipment	1,208.1	(755.8)	452.3	395.1
Property, plant and equipment	5,572.3	(3,763.4)	1,808.9	1,819.9

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

4.3 Real estate commitments

At 31 December 2018 and 2017, irrevocable lease and rental commitments, undiscounted, are as follows:

Irrevocable rental commitments	Total	Less than one year	One to five years	Over five years
31 December 2018	1,659.4	204.8	718.2	736.4
31 December 2017	1,190.5	201.7	566.1	422.7

The increase between 2017 and 2018 is due to the renegotiation of several leases, particularly in France.

NOTE 5. INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

5.1 Joint ventures

a) Group share in net equity and net income of joint ventures

	Investments in joint ventures		Share in net income		Share in comprehensive income	
	31/12/2018	31/12/2017 ^(a)	2018	2017 ^(a)	2018	2017 ^(a)
Naval Group (35%)	732.5	704.8	37.4	14.0	37.1	2.9
Other joint ventures ^(b)	353.8	297.1	61.5	59.6	72.9	54.5
TOTAL	1,086.3	1,001.9	98.9	73.6	110.0	57.4

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

(b) Not individually material, the value of each investment representing less than 10% of the total.

b) Change in investments in joint ventures

	31/12/2018	31/12/2017 ^(a)
Investments at opening	1,001.9	985.2
Share in net income of joint ventures	98.9	73.6
Translation adjustments	0.3	(7.9)
Cash flow hedges	11.6	(3.5)
Available for sale financial assets	—	(6.7)
Actuarial gains (losses) on pensions	(0.8)	1.9
Share in comprehensive income of joint ventures	110.0	57.4
Dividends paid	(43.0)	(38.5)
Capital increase and other	17.4	(2.2)
INVESTMENTS AT CLOSING	1,086.3	1,001.9

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

c) Naval Group: summary financial information

Thales holds a 35% stake in the share capital of Naval Group, a subsidiary jointly controlled with the French State. Naval Group is specialised in naval defence.

Naval Group's financial statements after restatements for integration into Thales's financial statements (mainly linked to acquisition-related intangible assets) are presented below:

Summary balance sheet, based on a 100% interest	31/12/2018	31/12/2017^(a)
Non-current assets	2,111.0	2,105.4
Current assets	14,100.1	13,412.4
Total assets	16,211.1	15,517.8
Restated equity, attributable to shareholders	1,258.6	1,179.3
Non-controlling interests	21.9	(13.0)
Non-current liabilities	561.3	602.5
Current liabilities	14,369.3	13,749.0
Total equity and liabilities	16,211.1	15,517.8
Net cash	1,992.1	2,594.5
Consolidation by Thales	31/12/2018	31/12/2017^(a)
Restated equity attributable to shareholders of the company	1,258.6	1,179.3
Thales's interest	35%	35%
Thales's share	440.5	412.8
Goodwill	292.0	292.0
Share in net assets of the joint venture	732.5	704.8
Income statement, based on a 100% interest	2018	2017^(a)
Sales	3,608.3	3,194.4
Income (loss) from operating activities, after share in net income of equity affiliates ^(b)	144.6	(8.9)
Financial income (loss)	0.9	2.4
Tax	(53.2)	(63.8)
Restated net income^(b)	92.3	(70.3)
• of which, attributable to shareholders of the company	106.9	39.9
• of which, attributable to non-controlling interests	(14.6)	(110.2)

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

(b) After Thales restatements, mainly PPA.

Consolidation by Thales	2018	2017 ^(a)
Restated net income attributable to shareholders of the company	106.9	39.9
Thales's interest	35%	35%
Share in net income of the joint venture	37.4	14.0
• of which, PPA amortisation	(25.3)	(18.8)
Share in net income of the joint venture, before PPA amortisation	62.7	32.8
Dividends received from the joint venture	10.1	–

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

d) Commitments toward joint ventures

At 31 December 2018, outstanding sureties, endorsements and guarantees granted by Thales S.A. (parent company) to its joint ventures amounted to €381.2 million (€321.9 million at 31 December 2017).

The Group's policy is to issue these commitments only in proportion to its equity interest, or to obtain counter-guarantees from the other shareholders in proportion to their interest.

e) Transactions with joint ventures (related parties)

The volume of transactions with joint ventures is as follows:

	2018	2017 ^(a)
Sales	584.7	511.4
Purchases	191.0	204.4
Loans and current accounts receivables	40.0	45.8
Borrowings and current accounts payables	11.3	5.8

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

5.2 Associates

The main associates are listed in Note 15. None of these companies is individually material with regard to consolidated aggregates. The mandatory disclosures are therefore presented in aggregate form in the table below.

a) Changes in investment in associates

	31/12/2018	31/12/2017
Investments in associates at 1 January	210.1	219.5
Share in net income of associates	45.8	46.3
Translation adjustments	3.9	(17.5)
Cash flow hedges	6.4	(2.3)
Actuarial gains (losses) on pensions	(0.2)	(0.7)
Share in total comprehensive income of associates	55.9	25.8
Dividends paid	(44.1)	(40.8)
Other	(1.9)	5.6
INVESTMENTS IN ASSOCIATES AT 31 DECEMBER	220.0	210.1

b) Commitments towards associates

The Group has no material off-balance sheet commitments towards associates.

NOTE 6. FINANCING AND FINANCIAL INSTRUMENTS

6.1 Financial income

a) Net interest income

	2018	2017
Interest expense:		
• on financial debt	(24.8)	(24.3)
• on interest rate swaps	(1.7)	8.0
	(26.5)	(16.3)
Interest income on cash and cash equivalents	19.6	21.3
TOTAL	(6.9)	5.0

b) Other financial income

	2018	2017
Foreign exchange gains (losses)	(9.6)	(17.4)
Cash flow hedges, ineffective portion	(2.5)	(10.9)
Change in fair value of currency derivatives ^(a)	(62.1)	(69.9)
Foreign exchange gains (losses)	(74.2)	(98.2)
Costs relating to the bridge loan set up to finance the acquisition of Gemalto	(8.4)	–
Other	4.3	(1.1)
TOTAL	(78.3)	(99.3)

(a) Includes the change in the fair value of swap points (losses of €55.2 million in 2018, €65.3 million in 2017), and the time value of foreign exchange options documented as future cash flow hedges (losses of €5.6 million in 2018 and of €5.7 million in 2017), as well as changes in the fair value of derivatives not documented as hedges.

6.2 Net cash (net debt)

Group net cash is as follows:

	31/12/2018	31/12/2017
Current financial assets	256.0	332.0
Cash and cash equivalents	5,637.5	4,282.7
Cash and other short-term investments (I)	5,893.5	4,614.7
Borrowings and debt, long-term portion	2,408.5	953.5
Borrowings and debt, short-term portion	321.2	707.3
Fair value of interest rate derivatives ^(a)	(16.7)	(17.5)
Financial debt (II)	2,713.0	1,643.3
NET CASH (I - II)	3,180.5	2,971.4

(a) The value of borrowings documented as fair value hedges takes into account changes in the fair value of the hedged risk. This change in the value of the debt is offset by the re-measurement of interest-rate swaps used as hedges (Note 6.6).

a) Current financial assets

	31/12/2018	31/12/2017
Current accounts receivable with related parties	3.5	3.1
Short-term deposits ^(a)	250.0	325.0
Accrued interests	2.5	3.9
CURRENT FINANCIAL ASSETS	256.0	332.0

(a) Investments in short-term deposits (3 to 12 months) with tier-one banks.

b) Cash and cash equivalents

At 31 December 2018, cash recorded under consolidated assets amounted to €5,637.5 million (€4,282.7 million at 31 December 2017) and included:

- €4,809.4 million held by the parent company and available for immediate use (€3,450.5 million in 2017). These amounts include €3,249.4 million (€2,199.2 million in 2017) in very short-term deposits with tier-one banks or money market funds (UCITS);
- €828.1 million in the credit balances of subsidiaries (€832.2 million in 2017), most of them outside France. This figure includes payments received in the last days of the financial year and subsequently transferred to the cash pooling account.

c) Borrowings and debt

	31/12/2018	31/12/2017
Bond maturing in 2025	495.3	–
Bond maturing in 2024	498.4	–
Bond maturing in 2023	599.6	593.9
Bond maturing in 2021	309.6	312.0
Bond maturing in 2020	500.9	–
Bond maturing in 2018	–	500.6
Interest rate derivatives (Note 6.6)	(16.7)	(17.5)
Current accounts in credit with related parties ^(a)	158.0	115.2
Bank overdrafts	94.7	62.0
Debt on investments in subsidiaries	43.3	43.8
Other debt	29.9	33.3
FINANCIAL DEBT	2,713.0	1,643.3

(a) Of which, at the end of 2018, €145.6 million toward Leonardo (€103.6 million at the end of 2017).

Change in financial debt

	31/12/2017	Other changes				31/12/2018
		Cash flow	Scope	Exchange rates	Fair value changes and other	
Financial debt	1,643.3	1,060.5	–	13.7	(4.5)	2,713.0

Bonds: changes and key features

In January 2018, Thales issued a 7-year €500 million fixed-rate bond. This issue aimed in particular at refinancing the bond maturing in March 2018.

In April 2018, Thales launched a 2-tranche bond issue for a total amount of €1 billion. With this transaction, the Group finalised the financing of its proposed Gemalto acquisition. The amounts raised enabled Thales to cancel the dedicated bridge credit agreement concluded in December 2017 to finance this acquisition. This bond issue includes a 2-year €500 million tranche and a 6-year €500 million tranche.

At the end of December 2018, the bonds' key features were as follows:

Nominal value	Issue date	Maturity	Type of rate	Coupon	Effective rate	
					Before hedging	After hedging
€500 million	January 2018	January 2025	Fixed	0.75%	0.91%	0.91%
€500 million	April 2018	April 2024	Fixed	0.875%	0.94%	1.11%
€600 million	June 2016	June 2023	Fixed ^(a)	0.75%	0.84%	0.98%
€300 million	March 2013	March 2021	Fixed ^(a)	2.25%	2.40%	1.04%
€500 million	April 2018	April 2020	Variable	3M Euribor + 0.2%	-0.13%	-0.13%

(a) After reversal, during H1 2018, of the swaps put in place when the bonds were issued.

Breakdown of financial debt by maturity

31/12/2018	Total	Maturity				
		2019	2020	2021	2022	> 2022
Financial debt ^(a)	2,713.0	321.2	504.4	295.9	0.4	1,591.1
Contractual cash flows	2,801.6	322.3	521.0	317.0	14.4	1,626.9

31/12/2017	Total	Maturity				
		2018	2019	2020	2021	> 2021
Financial debt ^(a)	1,643.3	704.2	45.3	1.4	295.5	596.9
Contractual cash flows	1,684.6	700.9	51.0	9.7	309.8	613.2

(a) After deduction of fair value of interest-rate derivatives.

Breakdown of financial debt by currency

	31/12/2018	31/12/2017
Euro	2,585.2	1,538.9
U.S. dollar	46.9	38.6
Pound sterling	4.8	9.4
Other	76.1	56.4
TOTAL	2,713.0	1,643.3

6.3 Non-current financial assets

a) Non-consolidated investments

Non-consolidated investments amounted to €123.9 million at the end of 2018 compared to €87.7 million at the end of 2017.

The increase in this item is mainly due to the additional investment of Thales Alenia Space in US Company Spaceflight Industries, in the framework of the "BlackSky" constellation project.

b) Non-current financial assets

	31/12/2018	31/12/2017
Loans to related parties	88.1	88.2
Loans to employee shareholding	0.4	21.2
Loans and other financial assets at amortised cost	45.8	40.0
Loans and other financial assets at market value	39.6	22.0
Gross value	173.9	171.4
Impairment	(4.0)	(4.9)
NET	169.9	166.5

6.4 Changes in net cash

	2018	2017
Net cash (debt) at 1 January	2,971.4	2,365.6
Net cash flow from operating activities	1,092.7	1,713.3
Less, contributions to reduction of UK pension deficit	98.3	82.3
Net operating investments	(380.3)	(430.7)
Free Operating cash flow	810.7	1,364.9
Acquisitions of subsidiaries and affiliates	(71.7)	(121.4)
• including, Guavus	–	(90.5)
Disposals of subsidiaries and affiliates	10.6	41.9
Contributions to reduction of UK pension deficit	(98.3)	(82.3)
Changes in loans	18.8	(26.7)
Dividends paid by the parent company	(382.1)	(348.9)
Third-party share in dividend distributions of subsidiaries	(41.7)	(68.1)
Treasury shares and subscription options exercised	(19.4)	(38.3)
Changes in exchange rates	(25.0)	(63.6)
Changes in debt related to investments in subsidiaries, and other	7.2	(51.7)
Total change	209.1	605.8
Net cash (debt) at 31 December	3,180.5	2,971.4

6.5 Summary of financial assets and liabilities

At end 2018, the classification of financial assets and liabilities remained identical to the one disclosed at end 2017, with the exception of non-consolidated investments, which have been classified, as from 1 January 2018, in the category "Fair value through OCI", with no reclassification to the income statement, even in case of disposal.

Receivables, payables and refundable grants are financial assets and liabilities as defined by IAS 32 and IFRS 9, and are measured at amortised cost. They are detailed in Note 10.

	31/12/2018				31/12/2017			
	At amortised cost	Profit or loss	Equity with no further reclassification	Fair value through: Equity with reclassification	Value in balance Sheet	Fair value	Value in balance Sheet	Fair value
Non-current financial assets								
Non-consolidated investments	–	4.0	119.9	–	123.9	123.9	87.7	87.7
Non-current loans and financial assets	130.3	39.6	–	–	169.9	169.9	166.5	166.5
Derivatives documented as hedges	–	16.7	–	–	16.7	16.7	17.0	17.0
Current financial assets								
Derivatives documented as hedges	–	–	–	90.1	90.1	90.1	249.8	249.8
Derivatives not documented as hedges	–	1.5	–	–	1.5	1.5	7.7	7.7
Current financial assets	256.0	–	–	–	256.0	256.0	332.0	332.0
Cash and cash equivalents	3,378.5	2,259.0	–	–	5,637.5	5,637.5	4,282.7	4,282.7
Non-current financial liabilities								
Long-term debt	2,391.8	16.7	–	–	2,408.5	2,424.7	953.5	980.8
Derivative documented as hedges	–	–	–	13.1	13.1	13.1	2.6	2.6
Current financial liabilities								
Derivatives documented as hedges	–	–	–	270.7	270.7	270.7	170.3	170.3
Derivatives not documented as hedges	–	3.0	–	–	3.0	3.0	9.4	9.4
Short-term debt	321.2	–	–	–	321.2	321.2	707.3	709.6

IFRS 13 categorises the various valuation techniques for each financial asset and liability according to a fair value hierarchy with three levels:

- level 1: valuation is based on quoted (non-adjusted) prices in active markets for identical assets or liabilities;
- level 2: valuation is based on information other than quoted market prices that is observable for the asset or liability, either directly or indirectly;
- level 3: valuation is based on unobservable information.

The fair value of financial assets and liabilities recorded at amortised cost approximates their carrying amount, except for borrowings and debts.

The fair value of bond debt is based on quoted prices (level 1). The fair value of other borrowings and debt is determined for each loan by

discounting the expected future cash flows at the Euribor interest rate at the closing date, adjusted for the Group's credit risk (level 2).

The fair value of monetary and non-monetary UCITS funds is measured based on the last known net asset value. The fair value of interest rate products (certificates of deposit, short-term deposits, negotiable medium-term notes, etc.) is based on the discounting of coupon flows (nominal and interest) over the remaining life of the product at the closing date. The discount rate used is the market rate corresponding to the maturity and product characteristics.

The fair value of derivatives is based on models commonly used to assess these financial instruments (models including observable market data). Counterparty default risk and credit risk have no material impact on the fair value of derivatives.

6.6 Financial risk

a) Market risk

Thales hedges its foreign exchange and interest-rate risks using over-the-counter derivatives from tier-one banks. The book value of derivatives used to manage the Group's market risks is presented below:

	31/12/2018		31/12/2017	
	Assets	Liabilities	Assets	Liabilities
Non-current derivatives				
• interest-rate derivatives	16.7	13.1	17.0	2.6
Current derivatives				
• foreign exchange derivatives	90.2	273.5	252.8	178.7
• interest-rate derivatives	1.4	0.2	4.7	1.0
Foreign exchange derivatives, net	(183.3)		74.1	
Interest-rate derivatives, net	4.8		18.1	

Foreign exchange risk

Thales hedges currency risks arising in connection with the negotiation of contracts denominated in currencies other than the main production currency, currency risks generated by ordinary commercial operations, risks relating to cash pooling and, in some cases, risks relating to its net investments in foreign operations.

At 31 December 2017 and 2018, the amount of derivatives in the portfolio can be analysed as follows:

Foreign exchange derivatives	31/12/2018				31/12/2017	
	Nominal value				Market value	Nominal value
	USD	GBP	Other	Total		Market value
Negotiations and trade operations hedges						
Documented as hedges						
Forward currency sales	2,986.0	761.4	2,331.3	6,078.6	(83.0)	6,912.9
Forward currency purchases	965.8	813.8	2,029.8	3,809.4		144.4
Currency sales (call and put options)	—	—	—	—	0.1	—
Currency purchases (call and put options)	43.7	—	—	43.7		—
Not documented as hedges						
Forward currency sales	—	—	—	—	—	—
Forward currency purchases	—	—	—	—		—
Currency sales (call and put options)	—	—	36.8	36.8	0.1	113.2
Currency purchases (call and put options)	38.8	—	8.2	47.0		0.1
Hedges related to cash pooling (documented as hedges from 2018)						
Currency sales: currency swaps	49.8	—	356.1	405.9	8.3	312.0
Currency purchases: currency swaps	26.2	145.3	274.6	446.1		0.5
Hedges related to net investments in foreign operations (hedge accounting)						
Currency sales: currency swaps	638.1	—	—	638.1	(105.8)	619.5
Currency purchases: currency swaps	—	519.4	—	519.4		(67.3)
Hedges related to net investments in foreign operations (not documented as hedges)						
Currency sales: currency swaps	24.8	—	—	24.8	(3.0)	40.8
Currency purchases: currency swaps	—	21.2	—	21.2		(3.6)
NET ASSETS (LIABILITIES)					(183.3)	74.1

Nominal amounts are translated into euros at the closing rate.

The maturity of the derivatives used to hedge commercial contracts is typically less than three years. Currency swaps are set up to align the maturities of derivatives to the maturities of hedged contracts. Other derivatives characteristics are consistent with the ones of the hedged risk.

The change in value of financial instruments (forward transactions) used to hedge cash flow is recognised in equity for the spot rate component. A decrease (increase) of 5% in the dollar against the euro, pound sterling and Canadian dollar would have had a positive (negative) impact

on equity of approximately €88 million at 31 December 2018 and €104 million at 31 December 2017.

The change in value of derivative instruments matched with commercial tender portfolio, which are not eligible for hedge accounting, is recognised in profit and loss. A decrease (increase) of 5% in the dollar against the euro, pound sterling or Canadian dollar would have no impact on profit or loss at 31 December 2018, as at 31 December 2017.

Interest-rate risk

Thales is exposed to interest-rate volatility and in particular its impact on the conditions associated with variable-rate financing. To limit this risk, Thales operates an active interest-rate hedging policy. At 31 December 2017 and 2018, the amount of derivatives in the portfolio was as follows:

Interest-rate derivatives	31/12/2018		31/12/2017	
	Nominal	Market value	Nominal	Market value
Fair value hedge (swaps with variable rate payables):				
• swaps related to bond maturing in 2023	400.0	2.5	400.0	(2.6)
• swaps related to bond maturing in 2021	300.0	14.2	300.0	17.0
• swaps related to bond maturing in 2018	—	—	300.0	3.1
	16.7		17.5	
Cash flow hedge (swaps with fixed rate payables):				
• swaps related to bond maturing in 2023	400.0	(6.7)	—	—
• swaps related to bond maturing in 2021	300.0	(1.9)	—	—
• pre-hedging swap related to bond maturing in 2024	— ^(a)	(4.5)	—	—
• financing of projects at variable-rate swapped to fixed-rate	4.6	(0.2)	8.4	(0.7)
Swaps not documented as hedges:				
• cross-currency swap with fixed-rate payable, hedging a loan	14.2	1.4	14.3	1.6
• swap with fixed-rate payable, hedging a loan	1.3	—	3.9	(0.3)
NET ASSETS		4.8		18.1

(a) € 500 million swaps set up prior the bond issue, and reversed on the issue date (April 2018).

The table below summarises the Group's exposure to interest-rate risk before and after hedging.

31/12/2018	< 1 year		> 1 year		Total	
	Fixed-rate	Variable-rate	Fixed-rate	Variable-rate	Fixed-rate	Variable-rate
Financial debt ^(a)	(14.6)	(306.6)	(1,886.2)	(505.6)	(1,900.8)	(812.3)
Financial assets, cash and cash equivalents	—	5,893.5	—	—	—	5,893.5
NET EXPOSURE BEFORE IMPACT OF DERIVATIVE INSTRUMENTS	(14.6)	5,586.9	(1,886.2)	(505.6)	(1,900.8)	5,081.2
Hedging derivatives	(4.6)	4.6	—	—	(4.6)	4.6
NET EXPOSURE AFTER IMPACT OF DERIVATIVE INSTRUMENTS	(19.2)	5,591.5	(1,886.2)	(505.6)	(1,905.4)	5,085.8

31/12/2017	< 1 year		> 1 year		Total	
	Fixed-rate	Variable-rate	Fixed-rate	Variable-rate	Fixed-rate	Variable-rate
Financial debt ^(a)	(512.1)	(192.1)	(891.8)	(47.3)	(1,403.9)	(239.4)
Financial assets, cash and cash equivalents	—	4,614.7	—	—	—	4,614.7
NET EXPOSURE BEFORE IMPACT OF DERIVATIVE INSTRUMENTS	(512.1)	4,422.6	(891.8)	(47.3)	(1,403.9)	4,375.3
Hedging derivatives	296.2	(296.2)	695.4	(695.4)	991.6	(991.6)
NET EXPOSURE AFTER IMPACT OF DERIVATIVE INSTRUMENTS	(215.9)	4,126.4	(196.4)	(742.7)	(412.3)	3,383.7

(a) After deduction of the fair value of interest-rate derivatives.

Based on the Group's average net cash, taking into account hedging instruments, a 1-point rise in interest rates would increase net interest income by €42.3 million in 2018 (€25.9 million in 2017).

b) Customer credit risk

Credit risk relates to the risk that a party to a contract will default on its commitments or fail to pay what it owes.

Risk of default by private sector customers

Non-governmental customers (aircraft manufacturers, airlines, private infrastructure operators and industry) account for approximately 25% of Thales's sales. These customers may encounter major and/or prolonged financial difficulties that could lead to payment defaults or order cancellations. Such occurrences could have a negative impact on the Group's sales, profitability and financial position.

To mitigate these risks, Thales conducts regular analyses of the ability of its customers to meet their obligations. When necessary, Thales may request bank guarantees or corporate guarantees, or may use credit insurers.

The Group's Finance department consolidates all the information relating to the Group's exposure to credit risk, notably by identifying and analysing the ageing of overdue accounts and notes receivable that have not been impaired. At 31 December 2018 and 2017, the ageing of these accounts and notes receivable is as follows:

31/12/2018	Total	Accounts and notes receivables past due		
		Less than 3 months	3 to 6 months	More than 6 months
Overdue receivables not subject to provision				
Governments and similar entities	415.7	297.7	26.4	91.6
Other	493.7	276.6	57.3	159.9

31/12/2017	Total	Accounts and notes receivables past due		
		Less than 3 months	3 to 6 months	More than 6 months
Overdue receivables not subject to provision				
Governments and similar entities	270.9	122.5	33.1	115.3
Other	378.3	172.9	68.5	136.9

Credit risk related to banking counterparties

Financial investments are diversified. They relate to first ranking debt and are negotiated with tier-one banks.

Thales trades over-the-counter derivatives with tier-one banks under agreements which provide for the offsetting of amounts payable and receivable in the event of default by one of the contracting parties.

Credit risk relating to public sector customers

Public, government and institutional customers account for around 75% of Thales's sales. Some of the countries with which Thales works could present a significant credit risk which could, for example, lead them to suspend an order in production, or render them unable to pay on delivery, as agreed under the terms of the contract. To limit its exposure to these risks, Thales takes out insurance with export credit agencies (such as BPIFrance) or private insurers.

At 31 December 2018, only three customers accounted for annual sales in excess of €500 million: the French government (around €2.8 billion), the UK government (around €0.8 billion) and the Australian government (around €0.7 billion). At 31 December 2018, these three countries had first-class or high-quality ratings (France: AA by S&P Global Ratings and Aa2 by Moody's; the United Kingdom: AA by S&P Global Ratings and Aa2 by Moody's; Australia: AAA by S&P Global Ratings and Aaa by Moody's).

These conditional offsetting agreements do not meet the eligibility criteria within the meaning of IAS 32 for offsetting derivative instruments recorded on the balance sheet under assets and liabilities. However, they do fall within the scope of disclosures to be provided under IFRS 7 on offsetting.

31/12/2018	Gross value (before offset)	Offset amounts on balance sheet	Net presented in balance sheet	Impact of other offsetting agreements		Net
				Offsetting agreements	Financial collaterals	
Derivatives – Assets	108.3	–	108.3	(102.3)	–	6.0
Derivatives – Liabilities	286.8	–	286.3	(102.3)	–	184.5

31/12/2017	Gross value (before offset)	Offset amounts on balance sheet	Net presented in balance sheet	Impact of other offsetting agreements		Net
				Offsetting agreements	Financial collaterals	
Derivatives – Assets	274.5	–	274.5	(167.0)	–	107.5
Derivatives – Liabilities	182.3	–	182.3	(167.0)	–	15.3

c) Liquidity risk

The Group's liquidity risk is the risk of its being unable to meet its cash needs out of its financial resources. In particular, it relates specifically to Thales's level of exposure to changes in the main market indicators that could lead to an increase in the cost of credit or even to a temporary limitation of access to external sources of financing.

The Group manages this risk by trying to anticipate its cash needs and ensures that these are covered by the Group's short-term and long-term financial resources, as follows:

- shareholders' equity (Note 8.1);
- financial debt (listed by date of maturity in Note 6.2);

- committed credit facilities⁽¹⁾, undrawn at 31 December 2018, amounting to €1,500 million, maturing in 2021, as well as a commercial paper programme (NeuCP).

The Group consolidates and pools its cash surpluses and needs for its various businesses, allowing it to simplify the cash management of those businesses by managing a consolidated position and accessing the financial markets through Thales parent company, which is rated by S&P Global Ratings (A-, negative outlook) and Moody's (A2, negative outlook).

The Group's funding agreements contain no covenants linked to changes in Thales's credit rating. A lower credit rating would result in an increase (capped) in the margins applicable to the committed credit facility mentioned above; symmetrically, a higher rating would lead to a decrease in the applicable margin (with a floor).

NOTE 7. INCOME TAX

The income tax charge takes into account specific local tax rules, including the tax consolidation systems in France and the United States, Group Relief in the United Kingdom and *Organschaft* rules in Germany.

7.1 Income tax expense

	2018	2017 ^(a)
Current tax	(196.3)	(288.8)
Deferred tax	(117.9)	52.1
TOTAL	(314.2)	(236.7)

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

Reconciliation between theoretical and actual tax charge

	2018	2017 ^(a)
Net income	1,027.9	737.4
Less: income tax	314.2	236.7
Less: share in net income of equity affiliates	(144.7)	(119.9)
Net income before tax and share in net income of equity affiliates	1,197.4	854.2
Theoretical average tax rate	31.2%	31.0%
Theoretical tax benefit (expense)	(373.7)	(265.0)
Reconciliation items:		
• Impact of tax credits	75.0	74.0
• Taxes not taken into account in the theoretical rate	(8.3)	(63.8)
• Impact of dividends paid	(4.9)	54.3
• Impact of tax rates changes on deferred tax	(1.9)	(42.5)
• Change in provision for deferred tax assets	8.0	(14.4)
• Adjustments in respect of prior periods	(7.2)	7.4
• Impact of partial or total exemption of disposals and other	(1.2)	13.3
Income tax benefit (expense) recognised in profit and loss	(314.2)	(236.7)
Effective tax rate	26.2%	27.7%

(a) 2017 figures have been restated to take into account the impact of IFRS 15 standard.

(1) The only accelerated repayment clause would apply in the event that the French government ceased to hold its golden share in the Company and, simultaneously, the ratio of consolidated net financial debt to EBITDA (current operating income before amortisation and depreciation) were to exceed 3.

The theoretical average tax rate corresponds to the sum of theoretical taxes of consolidated companies, divided by the consolidated net income before tax and the share in net income of equity affiliates. The theoretical tax of each consolidated company corresponds to the application of the local tax rate to net income before tax. Accordingly, the theoretical average tax rate reflects the relative contribution of the different countries to the Group's consolidated net income. France, which has a tax rate of 34.43%, represented almost 70% of income before tax in both 2017 and 2018.

The impact of tax credits includes:

- the impact of tax exemption on research tax credits (€179.7 million in 2018, €176.0 million in 2017) and tax credits for competitiveness and jobs (*crédit d'impôt pour la compétitivité et l'emploi* – CICE), recognised in operating income;

- the tax advantages related to research that are recognised in income tax (notably in the United States, Australia and the Netherlands).

Taxes not taken into account in the theoretical rate mainly include state taxes in the United States, the IRAP in Italy, taxes on foreign establishments, and the additional one-off contribution in France in 2017 (a negative amount of €50.3 million).

Until 2016, the impact of dividends paid mainly included the 3% tax introduced in France at the end of 2012. This tax, deemed unconstitutional, was repaid by the French government at the end of 2017 (net impact in 2017 of €48.5 million covering financial years 2013-2017).

In 2017, the impact of tax rate changes on deferred taxes mainly referred to the effect of the new gradual decrease in tax rates in France (a negative amount of €7.7 million) and the impact of the reduction in the United States federal tax rate from 35% to 21% (a negative amount of €22.0 million).

7.2 Deferred tax recognised in equity

	2018		2017 ^{a)}	
	Base	Tax	Base	Tax
Fully consolidated entities				
Translation of the financial statements of foreign subsidiaries	(9.2)	–	(84.7)	–
Net foreign investment hedges	–	–	–	–
Cash flow hedges	(122.3)	35.7	402.8	(113.4)
Available for sale financial assets	–	–	(1.0)	–
Other items reclassified to income	(131.5)	35.7	317.1	(113.4)
Actuarial gains and losses/pensions – United Kingdom	276.9	–	98.7	6.5
Actuarial gains and losses/pensions – Other countries	17.6	(7.1)	(49.3)	(3.3) ^{a)}
Other items not reclassified to income	294.5	(7.1)	49.4	3.2
Treasury shares and share-based payment		2.0		6.4
TOTAL DEFERRED TAX RECOGNISED IN EQUITY DURING THE YEAR		30.6		(103.8)

a) Including a negative amount of €18.6 million in 2017 due to the future decrease in tax rates in France.

7.3 Tax assets and liabilities presented on the balance sheet

	01/01/2018	Income (expense)	Equity	Cash flow	Changes in exch. rates, scope	Other	31/12/2018
Current income tax assets	36.6	—	—	9.8	(0.6)	—	45.8
Current income tax liabilities	(54.0)	(196.3)	—	81.3	—	134.8	(34.2)
Current income tax, net	(17.4)	(196.3)	—	91.1	(0.6)	134.8	11.6
Deferred tax assets	986.5	(134.8)	30.6	—	0.8	8.6	891.7
Deferred tax liabilities	(230.9)	16.9	—	—	(2.4)	—	(216.4)
Deferred tax, net	755.6	(117.9)	30.6	—	(1.6)	8.6	675.3
TOTAL		(314.2)	30.6	91.1			

	01/01/2017 ^(a)	Income (expense)	Equity	Cash flow	Changes in exch. rates, scope	Other	31/12/2017 ^(a)
Current income tax assets	59.8	—	—	(23.2)	—	—	36.6
Current income tax liabilities	(59.0)	(288.8)	—	113.8	(1.3)	181.3	(54.0)
Current income tax, net	0.8	(288.8)	—	90.6	(1.3)	181.3	(17.4)
Deferred tax assets	1,077.9	(23.2)	(103.8)	—	13.9	21.7	986.5
Deferred tax liabilities	(287.0)	75.3	—	—	(19.6)	0.4	(230.9)
Deferred tax, net	790.9	52.1	(103.8)	—	(5.7)	22.1	755.6
TOTAL		(236.7)	(103.8)	90.6			

a) 2017 figures have been restated to take into account the impact of the IFRS 15.

a) Current income tax

Income tax paid is reported net of tax credits utilised. The allocation of tax credits is presented under "Other".

b) Deferred tax

Changes by type

	01/01/2018	(Expense)/ Income for the period	Equity	Changes in exch. rates, scope and other	31/12/2018
Temporary differences:	960.1	(94.1)	(13.7)	0.2	852.5
• pensions and similar benefits	611.9	(13.8)	(59.3)	(73.9)	464.9
• intangible assets	(245.0)	31.4	—	19.4	(194.2)
• provisions on contract	238.4	22.2	—	13.1	273.7
• other	354.8	(133.9)	45.6	41.6	308.1
Tax loss carry-forwards	174.5	(15.8)	—	(0.6)	158.1
Total	1,134.6	(109.9)	(13.7)	(0.4)	1,010.6
O/w not recognised on the balance sheet	(379.0)	(8.0)	44.3	7.4	(335.3)
Total net deferred tax assets	755.6	(117.9)	30.6	7.0	675.3

	01/01/2017 ^(a)	(Expense)/ Income for the period	Equity	Changes in exch. rates, scope and other	31/12/2017 ^(a)
Temporary differences:	997.6	99.6	(131.1)	(6.0)	960.1
• pensions and similar benefits	593.3	(12.5)	(19.7)	50.8	611.9
• intangible assets	(310.1)	69.9	–	(4.8)	(245.0)
• provisions on contract	247.0	(12.0)	–	3.4	238.4
• other	467.4	54.2	(111.4)	(55.4)	354.8
Tax loss carry-forwards	192.4	(33.1)	–	15.2	174.5
Total	1,190.0	66.5	(131.1)	9.2	1,134.6
O/w not recognised on the balance sheet	(399.1)	(14.4)	27.3	7.2	(379.0)
Total net deferred tax assets	790.9	52.1	(103.8)	16.4	755.6

a) 2017 figures have been restated to take into account the impact of the IFRS 15.

Tax loss carry-forwards

Total tax loss carry-forwards represent a potential tax saving of €158.1 million at 31 December 2018 (€174.5 million at 31 December 2017). The corresponding expiry dates are as follows:

	31/12/2018		31/12/2017
2019	1.1	2018	1.1
2020-2023	0.4	2019-2022	0.2
Beyond 2023	42.5	Beyond 2022	44.8
Not time limited	114.1	Not time limited	128.4
Total	158.1	Total	174.5
O/w not recognised on the balance sheet	(115.1)	O/w not recognised on the balance sheet	(112.0)
Net deferred tax asset	43.0	Net deferred tax asset	62.5

As described in Note 13-i, only deferred tax assets related to tax losses which the Group expects to recover are recognised on the balance sheet. In particular, the Group takes into account any loss carry-forward limitations.

NOTE 8. EQUITY AND EARNINGS PER SHARE

8.1 Equity

a) Share capital

At 31 December 2018, the share capital of Thales parent company amounted to €639,312,243 and comprised 213,104,081 shares with a par value of €3, compared with 212,658,725 shares at 31 December 2017. This represents an increase of 445,356 shares resulting from the exercise of share subscription options.

b) Outstanding securities giving access to the share capital

At 31 December 2018, there were no securities that gave access to the share capital of the Company, with the exception of the share subscription options described in Note 9.4.

c) Treasury shares

Thales parent company held 648,295 of its own shares at 31 December 2018. They were accounted for as a deduction from equity in the amount of €67.3 million.

In accordance with the authorisations given to the Board of Directors at the Annual General Meeting, the Company carried out the following transactions in 2017 and 2018:

	2018	2017
Treasury shares at 1 January	568,739	749,559
Purchases as part of a liquidity agreement	838,402	819,512
Disposals as part of a liquidity agreement	(702,128)	(743,512)
Transfer to employees as part of the employee share purchase offering	(37,118)	(462,167)
Delivery of free shares	(238,750)	(606,653)
Market purchases	220,000	852,000
Exercise of share purchase options	(850)	(40,000)
Treasury shares at 31 December	648,295	568,739

At 31 December 2018 and 2017, as part of the liquidity agreement managed by Kepler Cheuvreux, the following numbers of shares were held in the liquidity account:

	2018	2017
Number of shares at 31 December	262,274	126,000
Value (€ million)	7.9	23.2

d) Translation adjustments

Translation adjustments result from the translation of financial statements of companies whose functional currency is not the euro, offset as applicable by the impact of derivative instruments denominated in foreign currencies to hedge net investments in foreign operations.

Translation adjustments are recorded in equity as other comprehensive income, and are subsequently reclassified to income on the date of their disposal. They break down as follows:

	2018	2017
Translation adjustments at 1 January	(218.2)	(110.0)
Changes in value	(6.9)	(108.4)
Reclassified to profit and loss	—	—
Gross change	(6.9)	(108.4)
Deferred tax	—	—
Scope and other	—	0.2
Translation adjustments at 31 December	(225.1)	(218.2)
Of which:		
Hedge of net investments in foreign operations	—	—

e) Reserves for cash flow hedge

The Group uses foreign exchange derivatives to hedge against changes in the value of future cash flows related to commercial cash flows in foreign currencies. In the consolidated financial statements, the effective portion of changes in fair value of these derivatives is recognised directly in equity, until such time as the hedged flows affect profit and loss.

	2018	2017
Cash flow hedge at 1 January	21.2	(250.7)
Changes in value of derivatives	(16.5)	253.2
Reclassified to operating (income)/expense	(72.4)	33.2
Reclassified to income tax (benefit)/expense	19.0	(14.5)
Changes in scope and exchange rates	—	—
Cash flow hedge at 31 December^(a)	(48.7)	21.2

(a) A negative balance at closing means that the exchange rates of the derivative instruments documented as hedges are generally less favourable than the exchange rates prevailing at the closing date.

f) Parent company dividend distribution

The per share dividend amounted to €1.60 in 2016 and €1.75 in 2017.

The Board of Directors decided to propose to shareholders, who will be convened to a General Meeting on 15th May 2019, the payment of a total amount of €2.08 per share.

If approved, the ex-dividend date will be 21 May 2019 and the payment date will be 23 May 2019. The dividend will be paid fully in cash and will amount to €1.58 per share, after deducting the interim dividend of €0.50 per share paid in December 2018.

Dividends paid in 2017 and 2018 are described below:

Year	Approved by	Description	Dividend per share	Payment date	Payment method	Total
2018	Board of Directors meeting on 27 September 2018	2018 interim dividend	€0.50	12/2018	Cash	€106.3 M
	General Meeting on 23 May 2018	Balance for 2017	€1.30	06/2018	Cash	€275.8 M
	Total dividends paid in 2018					€382.1 M
2017	Board of Directors meeting on 28 September 2017	2017 interim dividend	€0.45	12/2017	Cash	€95.2 M
	General Meeting on 17 May 2017	Balance for 2016	€1.20	06/2017	Cash	€253.7 M
	Total dividends paid in 2017					€348.9 M
2016	Board of Directors meeting on 22 September 2016	2016 interim dividend	€0.40	12/2016	Cash	€84.6 M

g) Non-controlling interests

This item principally includes Leonardo's interest in the Thales Alenia Space sub-group (33%), and Siemens's and Philips Medical Systems International's interest in Trixell SAS (49%).

The individual contributions of these minority shareholders to the Group's key financial indicators are not material.

The cash of these two companies is unrestricted and is exclusively pooled with Thales's Corporate Treasury Department.

8.2 Earnings per share

Basic earnings per share are calculated by dividing the net income attributable to the shareholders of the parent company by the *pro rata temporis* weighted average number of shares outstanding during the period, excluding treasury shares.

Diluted earnings per share take only into account instruments with a dilutive effect on earnings per share. The dilutive effect of share subscription and share purchase options, free shares and unit allotments is calculated using the treasury stock method, taking into account the average share price over the relevant period.

		2018	2017 ^(a)
Numerator (in € millions)			
Net income attributable to shareholders of the parent company	(A)	981.8	679.8
Denominator (in thousands)			
Average number of shares outstanding	(B)	212,438	211,661
Share subscription and share purchase options ^(b)		318	596
Free shares and units plans ^(c)		569	984
Diluted average number of shares outstanding	(C)	213,325	213,241
Net earnings per share (in euros)	(A) / (B)	4.62	3.21
Diluted net earnings per share (in euros)	(A) / (C)	4.60	3.19
Average share price (in euros)		105.74	92.14

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

(b) Only option plans with an exercise price that is lower than the average share price are taken into account in the calculation of diluted earnings per share.

(c) Performance shares/units subject to internal performance conditions are only taken into account when the performance targets are achieved.

NOTE 9. EMPLOYEE BENEFITS

9.1 Consolidated headcount

Consolidated headcount includes all employees of fully consolidated companies. It does not include employees of equity affiliates. At end 2018, Thales's headcount stood at 66,135, versus 64,860 at end 2017.

Three-quarters of the headcount comprises employees with grades equivalent to engineer, specialist or manager.

9.2 Personnel expenses

	2018	2017
Wages and salaries and payroll taxes ^(a)	(6,288.3)	(6,120.8)
Defined-benefit pension expense: current service cost (Note 9.3)	(108.8)	(105.0)
Compensation subject to continued employment, in framework of business combinations	(7.9)	(17.8)
Share-based payments (Note 9.4)	(53.9)	(48.8)
TOTAL	(6,458.9)	(6,292.4)

(a) These amounts include employee profit-sharing, incentive plans and defined-contribution pension expenses.

9.3 Provisions for pensions and other employee benefits

The Group grants to its employees post-employment benefits (pensions, end-of-career severance, medical coverage, etc.) and other long-term benefits (long-service and jubilee awards, etc.).

a) Description of the plans

The Group's existing plans are either defined-contribution plans or defined-benefit plans.

Defined-contribution plans

In certain countries, the Group pays contributions based on salaries to state organisations overseeing basic pension schemes (e.g., *Sécurité Sociale* or the compulsory supplementary schemes ARRCO and AGIRC in France). Beyond these basic pension schemes, Thales also contributes to other defined-contribution plans (e.g., in the Netherlands and the United Kingdom since 2002). These plans do not impose any obligations on the Group other than the payment of contributions: there is no related benefit obligation and contributions are expensed in the period they are incurred.

Defined-benefit plans

Defined-benefit plans relate to different types of benefits:

- pensions and end-of-career indemnities (legal or contractual), and other long-term benefits (jubilee awards, etc.), particularly in France. In general, these commitments are not covered by any assets;
- supplementary pension schemes, mainly in the United Kingdom, where the main scheme, "Thales UK Pension Scheme", provides a pension based on the beneficiary's average salary, indexed to inflation. This plan has been closed to new entrants since 2002, and is managed by a trust according to minimum local funding regulations.

The present value of the Group's obligations and the value of plan assets are measured independently. A provision is recognised if the value of the assets is insufficient to cover the obligations.

b) Provisions recognised on the balance sheet

	2018	2017
Provision at 1 January	(2,674.3)	(2,785.8)
Current service cost (income from operations)	(108.8)	(105.0)
Amendments and settlements (non-recurring operating income)	(27.9)	(21.2)
Interest expense	(135.7)	(151.4)
Expected return on plan assets	89.0	94.2
Net interest cost	(46.7)	(57.2)
Pension fund management cost	(5.2)	(5.6)
Actuarial gains and losses on other long-term benefits	4.7	(2.7)
Finance costs on pensions and other long-term employee benefits	(47.2)	(65.5)
Total expense for the period	(183.9)	(191.7)
Actuarial gains and losses (other comprehensive income)	294.5	49.4
Benefits and contributions	227.2	202.9
• of which, deficit payment in the United Kingdom	98.3	82.3
• of which, other benefits and contributions	128.9	120.6
Translation adjustment	6.6	55.7
Changes in scope of consolidation and other	3.2	(4.8)
Provision at 31 December	(2,326.7)	(2,674.3)
Of which:		
• post-employment benefits	(2,120.5)	(2,468.0)
• other long-term benefits	(206.2)	(206.3)

c) Changes in defined benefit obligations and plans assets

2018	UK	France	Other	Total
Obligation at 1 January	(4,431.8)	(1,212.5)	(602.7)	(6,247.0)
Current service cost	(20.7)	(62.3)	(25.8)	(108.8)
Interest cost	(113.0)	(14.3)	(8.4)	(135.7)
Plan participant contributions	(9.5)	—	(2.3)	(11.8)
Amendments/settlements	(24.9)	(3.0)	—	(27.9)
Experience gains (losses)	172.2	(31.7)	0.2	140.7
Actuarial gains (losses)/financial assumptions	163.4	44.6	17.0	225.0
Actuarial gains (losses)/demographic assumptions	30.4	—	(1.2)	29.2
Actuarial gains (losses) on long-term benefits	—	4.4	0.3	4.7
Benefits paid by plan assets	171.0	2.7	4.8	178.5
Benefits paid by employer	0.5	83.8	22.3	106.6
Changes in scope, exchange rates and other	32.7	5.1	(6.3)	31.5
Obligation at 31 December	(4,029.7)	(1,183.2)	(602.2)	(5,815.1)
Plan assets at 1 January	3,248.7	151.8	172.2	3,572.7
Expected return on plan assets	83.9	1.8	3.3	89.0
Employer's contribution	113.9	0.8	5.9	120.6
Plan participant contributions	9.5	—	2.3	11.8
Amendments/settlements	—	—	—	—
Benefits paid by plans assets	(171.0)	(2.7)	(4.8)	(178.5)
Experience gains (losses)	(89.2)	(3.8)	(7.4)	(100.4)
Changes in scope, exchange rates and other	(30.9)	—	4.1	(26.8)
Plan assets at 31 December	3,164.9	147.9	175.6	3,488.4
PROVISIONS AT 31 DECEMBER	(864.8)	(1,035.3)	(426.6)	(2,326.7)

2017	UK	France	Other	Total
Obligations at 1 January	(4,605.7)	(1,138.1)	(597.3)	(6,341.1)
Current service cost	(24.0)	(57.6)	(23.4)	(105.0)
Interest cost	(123.7)	(16.9)	(10.8)	(151.4)
Plan participant contribution	(10.2)	—	(2.2)	(12.4)
Amendments/settlements	(2.8)	(18.4)	—	(21.2)
Experience gains (losses)	20.8	(28.7)	5.4	(2.5)
Actuarial gains (losses)/financial assumptions	(147.0)	(35.5)	(5.3)	(187.8)
Actuarial gains (losses)/demographic assumptions	137.8	—	1.1	138.9
Actuarial gains (losses) on long-term benefits	—	(1.1)	(1.6)	(2.7)
Benefits paid by plan assets	161.5	2.6	12.7	176.8
Benefits paid by employer	0.5	75.7	18.6	94.8
Changes in scope, exchange rates and other	161.0	5.5	0.1	166.6
Obligations at 31 December	(4,431.8)	(1,212.5)	(602.7)	(6,247.0)
Plan assets at 1 January	3,246.2	141.5	167.6	3,555.3
Expected return on plans assets	88.2	2.1	3.9	94.2
Employer's contribution	98.5	4.0	5.6	108.1
Plan participant contribution	10.2	—	2.2	12.4
Amendments/settlements	—	—	—	—
Benefits paid by plan assets	(161.5)	(2.6)	(12.7)	(176.8)
Experience gains (losses)	87.0	6.9	6.9	100.8
Changes in scope, exchange rates and other	(119.9)	(0.1)	(1.3)	(121.3)
Plan assets at 31 December	3,248.7	151.8	172.2	3,572.7
PROVISIONS AT 31 DECEMBER	(1,183.1)	(1,060.7)	(430.5)	(2,674.3)

d) Actuarial assumptions used

The actuarial assumptions used are determined according to the economic environment and specific criteria of each country and each system. The most sensitive assumptions are as follows:

2018	UK	France	2017	UK	France
Inflation rate	3.24%	1.45%	Inflation rate	3.19%	1.35%
Discount rate	2.87%	1.58%	Discount rate	2.60%	1.20%
Average duration of the plans	17 years	10 years	Average duration of the plans	17 years	10 years

For each country, the discount rates are obtained by reference to the Iboxx Corporate AA index, which reflects the rate of return of very high-quality corporate bonds, with maturity dates equivalent to the duration of the plans being measured, and in the same currency.

At 31 December 2018, the sensitivity of the net obligation to a change in the discount rate is as follows:

Sensitivity in basis points	+25	−25	+50	−50	+100	−100
Decrease (increase) in provision (in € millions)	201.7	(212.9)	392.5	(439.3)	743.7	(931.6)

In the United Kingdom, a 25 basis-point increase in the inflation rate would lead to a €92.0 million increase in the obligation. Conversely, a 25 basis-point decrease in the inflation rate would lead to a €95.0 million decrease in the obligation.

e) Allocation and return on plan assets

Plan assets generated an actual average return of -0.3% in 2018, compared with +5.5% in 2017. At 31 December 2018, the allocation of assets, mainly invested in the United Kingdom, breaks down as follows:

	2018	2017
Fixed-rate bonds	32%	34%
Index-linked bonds	12%	12%
Equities	25%	28%
Alternative liquid investments	8%	10%
Alternative non-liquid investments (property, etc.)	23%	16%
TOTAL	100%	100%

f) Funding

Thales is subject to funding obligations in respect of its defined-benefit pension commitments in the United Kingdom.

In accordance with the regulations in force, the level of funding for its pension obligation is re-measured every three years, further to which the suitability of a new funding plan and/or the implementation of guarantees for the plan is decided in consultation with the trustees.

The latest measurement, based on the situation at end 2017, is in the process of being finalised. Starting in 2019, for the main Thales UK Pension scheme, it would lead to an annual contribution of £75 million (£5 million for other schemes) to reduce the funding shortfall.

In support of the contributions made by Thales UK Ltd to the British pension plans, Thales parent company has also guaranteed the future liabilities linked to the funding plans for the subsidiaries concerned. At 31 December 2018, the balance of these guarantees was £821.1 million.

9.4 Share-based payment

At 31 December 2018, the following options, shares and units were outstanding:

- 309,738 share purchase options with a weighted average exercise price of €30.30, including 122,104 performance shares;
- 623,625 free shares, including 537,605 performance shares;

- 573,410 share units, including 222,950 performance units;
- 204,150 phantom shares, payable in cash at the end of a four-year vesting period, including 165,720 performance shares.

The features of these plans are described in chapter 4.2 of the 2017 Registration Document.

a) Outstanding share purchase option plans

Date of Board decision	Exercise period	Exercise price	Number of options outstanding at 31/12/2017	Options exercised in 2018	Options cancelled in 2018	Number of options outstanding at 31/12/2018
25/11/2008	from 25/11/2012 to 24/11/2018	€38.50	850	(850)	—	—

b) Outstanding share subscription option plans

Date of Board decision	Exercise period	Exercise price	Number of options outstanding at 31/12/2017	Options exercised in 2018	Options cancelled in 2018	Number of options outstanding at 31/12/2018
15/09/2011 ^(a)	from 15/09/2015 to 14/09/2021	€26.34	85,377	(11,323)	—	74,054
23/09/2010 ^(a)	from 23/09/2014 to 22/09/2020	€26.34	70,050	(22,000)	—	48,050
25/06/2009	from 25/06/2013 to 24/06/2019	€32.88	272,752	(82,578)	(2,540)	187,634
01/07/2008	from 01/07/2012 to 30/06/2018	€38.50	355,025	(329,455)	(25,570)	—

(a) Plans contingent upon the achievement of internal performance targets over the three financial years following the grant date.

c) Allotment of free shares

Date of Board decision	Vesting period	Share price at grant date	Number of free shares at 31/12/2017	Shares allotted in 2018	Shares cancelled in 2018	Shares issued in 2018	Number of free shares at 31/12/2018
27/09/2018 ^(a)	from 27/09/2018 to 27/09/2022	€121.75	—	181,515	(180)	—	181,335
28/09/2017 ^(a)	from 28/09/2017 to 28/09/2021	€94.66	212,540	—	(1,640)	—	210,900
27/10/2016	from 27/10/2016 to 27/10/2020	€83.10	87,560 147,760	— —	(1,250) (2,390)	(290) —	86,020 145,370 ^(a)

(a) Plans contingent upon the achievement of internal performance targets over the three financial years following the grant date.

d) Allotment of share units indexed to the value of Thales shares

Date of the allocation decision	Vesting period	Share price at grant date	Number of units at 31/12/2017	Units cancelled in 2018	Units issued in 2018 ^(a)	Number of units at 31/12/2018
17/09/2015	from 17/09/2015 to 17/09/2019	€61.75	359,030 225,450 ^(b)	(8,570) (2,500)	— —	350,460 222,950 ^(c)
16/09/2014	from 16/09/2014 to 16/09/2018	€42.42	396,760 262,500 ^(b)	(9,410) (1,800)	(387,350) (260,700)	— —

(a) Plans contingent upon the achievement of internal performance targets over the three financial years following the grant date.

(b) After adjustments subsequent to the close.

(c) Plan consisting partially of shares (238,460 shares), with the balance in cash.

e) Allotment of phantom shares indexed to the value of Thales shares

Date of the allocation decision	Vesting period	Number of phantom shares at 31/12/2017	Phantom shares issued in 2018	Phantom shares cancelled in 2018	Number of phantom shares at 31/12/2018
27/09/2018 ^(a)	from 27/09/2018 to 27/09/2022	—	62,940	(80)	62,860
28/09/2017 ^(a)	from 28/09/2017 to 28/09/2021	67,000	—	(530)	66,470
27/10/2016	from 27/10/2016 to 27/10/2020	38,790 36,390	— —	(360) —	38,430 36,390 ^(c)

(a) Plans contingent upon the achievement of internal performance targets over the three financial years following the grant date.

f) Expenses related to share-based payments

In the consolidated financial statements, the benefit granted to beneficiaries of the above-mentioned plans is recognised as an operating expense. These amounts break down as follows:

Plans	Residual fair value at the end of 2018	2018 expense	2017 expense
Free shares	32.8	(9.7)	(8.8)
Share units indexed to the value of the Thales share ^(a)	7.5	(26.5)	(20.7)
Phantom shares and other schemes ^(b)	12.1	(4.1)	(2.0)
Employee share scheme	—	—	(6.0)
Social contributions related to the plans	11.1	(13.6)	(11.3)
TOTAL	63.5	(53.9)	(48.8)
Of which, offsetting entries:			
• Shareholders' equity		16.3	21.8
• Debt		37.6	27.0

(a) The fair value of the 2015 plan, measured in accordance with the Monte Carlo model, takes into account a volatility rate of 23%, a dividend payout rate of 2%, and a free risk rate of 0.10%.

(b) In 2018, like in 2017, this line included the expense relating to the long-term incentive plan (LTIP) of the Chairman and CEO, consisting of a maximum of 5,000 performance units, the conditions of which are described in the 2017 Registration Document on pages 162 and 166.

9.5 Compensation of directors and senior corporate officers

Expenses recognised in respect of compensation, benefits and social security contributions attributed to Directors and members of the Executive Committee are as follows:

	2018	2017
Short-term benefits:		
• Fixed compensation	5.2	5.2
• Variable compensation	4.4	4.5
• Retirement benefit	—	0.5
• Employer social security contributions	3.3	3.3
• Board attendance fees	0.6	0.6
Other benefits (including social contributions):		
• Post-employment benefits	2.7	2.4
• Share-based payments	4.9	3.4

At 31 December 2018, the share of directors and senior corporate officers in net Group pension obligations (Note 9.3) amounted to €20.3 million.

NOTE 10. CURRENT OPERATING ASSETS AND LIABILITIES

Current operating assets and liabilities include working capital (WCR) components and reserves for contingencies, as defined in Note 13-d.

The changes in these items are presented below:

	01/01/2017 ^(a)	Change in WCR and reserves	Change in scope, exchange rates and reclassifications	31/12/2017 ^(a)	Change in WCR and reserves	Change in scope, exchange rates and reclassifications	31/12/2018
Inventories, work in progress and set-up costs	2,999.6	225.0	(65.7)	3,158.9	(114.8)	36.5	3,080.6
Contract assets	2,577.0	(232.4)	(43.2)	2,301.4	188.5	48.5	2,538.4
Advance to suppliers	348.3	110.3	(6.8)	451.8	201.5	(1.0)	652.3
Accounts, notes and other receivables	4,188.4	(88.4)	(91.5)	4,008.5	664.8	(1.6)	4,671.7
Current derivatives – assets	161.7	122.6	(29.9)	254.4	(101.7)	(61.1)	91.6
Current operating assets	10,275.0	137.1	(237.1)	10,175.0	838.3	21.3	11,034.6
Contract liabilities	(6,393.3)	(50.6)	77.9	(6,366.0)	376.4	(118.6)	(6,108.2)
Reserves for contingencies	(1,605.3)	(207.6)	30.5	(1,782.4)	38.7	12.9	(1,730.8)
Accounts, notes and other payables	(5,172.9)	(254.4)	66.8	(5,360.5)	(708.6)	(79.4)	(6,148.5)
Current derivatives – liabilities	(478.3)	—	298.6	(179.7)	—	(94.0)	(273.7)
Current operating liabilities	(13,649.8)	(512.6)	473.8	(13,688.6)	(293.5)	(279.1)	(14,261.2)
Restructuring provisions	114.3	(27.0)	(1.3)	86.0	(26.0)	2.0	62.0
INCREASE (DECREASE) IN WCR AND RESERVES		(402.5)			518.8		

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

10.1 Inventories, work in progress, and set-up costs

	31/12/2018	31/12/2017
Goods	122.1	139.2
Raw materials	945.6	943.1
Semi-finished and finished goods	1,510.5	1,483.2
Work in progress	1,137.8	1,234.0
Gross value	3,716.0	3,799.5
Depreciation	(785.4)	(748.3)
Inventories and work in progress, net	2,930.6	3,051.2
Gross	607.3	504.3
Depreciation	(457.3)	(396.6)
Set-up costs, net	150.0	107.7
TOTAL	3,080.6	3,158.9

10.2 Contract assets and liabilities

	31/12/2018	31/12/2017
Unbilled receivables, gross	10,143.6	6,912.1
Unbilled receivables, depreciation	(4.1)	(25.2)
Advances received from customers	(7,601.1)	(4,585.5)
Contract assets	2,538.4	2,301.4
Advances received from customers	(8,778.2)	(10,237.7)
Unbilled receivables	4,256.8	5,569.8
Deferred income	(1,586.8)	(1,698.1)
Contract liabilities	(6,108.2)	(6,366.0)

For a given contract, a contract asset (liability) represents the accumulated revenue not yet invoiced, less advances received from customers.

This amount increases as and when revenue is recognised, and decreases when invoices are issued to the customers or advance payments are received.

These items remained stable between 2017 and 2018, with invoicing and payments received from customers globally offsetting the revenue recognised in the period for the progress of work done.

10.3 Reserves for contingencies

	01/01/2018 ^(a)	Utilisation	Additions	Reversal (surplus)	Exchange rates and other	31/12/2018
Restructuring	86.0	(32.5)	15.1	(8.6)	2.0	62.0
Technical and other litigation	152.0	(19.6)	41.7	(23.3)	8.6	159.4
Guarantees	338.2	(68.1)	110.5	(35.1)	12.2	357.7
Losses at completion	565.4	(146.7)	224.7	(44.0)	(22.3)	577.1
Provisions on contracts	321.0	(93.5)	109.7	(8.3)	16.5	345.4
Other ^(b)	319.8	(45.5)	60.1	(16.4)	(88.8)	229.2
TOTAL	1,782.4	(405.9)	561.8	(135.7)	(71.8)	1,730.8

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

(b) This line includes technical provisions of insurance companies, provisions for tax and labour-related risks, vendor warranties, environmental guarantees and other. In 2018, reclassifications were made from this line to other types of provisions, or to other current operating assets and liabilities.

	01/01/2017 ^(a)	Utilisation	Additions	Reversal (surplus)	Exchange rates and other	31/12/2017 ^(a)
Restructuring	114.3	(62.8)	42.8	(7.0)	(1.3)	86.0
Technical and other litigation	131.0	(21.2)	72.7	(29.2)	(1.3)	152.0
Guarantees	261.7	(40.4)	120.1	(12.9)	9.7	338.2
Losses at completion	527.1	(120.6)	187.3	(23.3)	(5.1)	565.4
Provisions on contracts	270.6	(34.4)	86.0	(8.8)	7.6	321.0
Other ^(b)	300.6	(73.4)	113.0	(13.3)	(7.1)	319.8
TOTAL	1,605.3	(352.8)	621.9	(94.5)	2.5	1,782.4

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

(b) This line includes technical provisions of insurance companies, provisions for tax and labour-related risks, vendor warranties, environmental guarantees and other. In 2018, reclassifications were made from this line to other types of provisions, or to other current operating assets and liabilities.

Net restructuring costs break down as follows:

	2018	2017
Additions for the period	(15.1)	(42.8)
Utilisation for the period	32.5	62.8
Reversals for the period	8.6	7.0
Net	26.0	27.0
Expenses for the period	(74.3)	(108.1)
Restructuring costs	(48.3)	(81.1)

10.4 Maturity of current receivables and payables

The amounts presented in the balance sheet for this item break down as follows:

		31/12/2018		31/12/2017
	Total	< 1 year	> 1 year	Total
Accounts and accrued receivables, gross	3,169.9	3,105.8	64.1	2,837.1
Accounts and notes receivables, depreciation ^(a)	(119.2)	(112.7)	(6.5)	(104.8)
Accounts and accrued receivables, net	3,050.7	2,993.1	57.6	2,732.3
Tax receivables (excluding income tax)	1,148.9	1,043.7	105.2	893.1
Other receivables, gross	474.8	434.8	40.0	386.0
Other receivables, depreciation	(2.7)	(2.7)	—	(2.9)
Net	1,621.0	1,475.8	145.2	1,276.2
Accounts, notes and other receivables	4,671.7	4,468.9	202.8	4,008.5
Accounts and notes payable	2,674.3	2,669.5	4.8	2,389.6
Accrued holiday pay and payroll taxes	1,583.2	1,540.8	42.4	1,564.4
Tax payables (excluding income tax)	1,054.9	1,054.5	0.4	677.1
Other creditors and accrued liabilities	836.1	814.1	22.0	729.4
Accounts, notes and other payables	6,148.5	6,078.9	69.6	5,360.5

(a) 2017 figures have been restated to take into account the impact of the IFRS 15 standard.

The changes in provisions on accounts and notes receivable break down as follows:

	31/12/2017	IFRS 9 impact	Additions/reversal	Exchange rate and scope	31/12/2018
Provisions on accounts and notes receivable	(104.8)	(16.9)	3.6	(1.1)	(119.2)

The Group may assign trade receivables, mainly from the French State, and commercial paper. At 31 December 2018, derecognised receivables outstanding amounted to €206.5 million (€292.5 million at 31 December 2017). The organic change in derecognised receivables amounted to €-86.0 million for 2018 (versus €149 million in 2017).

Since these assignments are without recourse in case of debtor default, the receivables in question are subject to "de-recognition" of the asset.

10.5 Commitments linked to commercial contracts

The Group's contractual commitments towards its counterparties (mainly its customers) can be subject to three types of guarantees or warranties:

a) Bank guarantees

- **Bid bonds:** In the ordinary course of its activities, the Group regularly responds to invitations to tender. When requested by the customer, bid bonds are delivered in order to demonstrate the definitive nature of the bid and to indemnify the customer if the Group fails to meet its commitments. At 31 December 2018, bid bonds issued amounted to €18.2 million (€33.6 million at 31 December 2017).
- **Performance bonds:** From the signature of a contract up until its completion, the Group may also issue performance bonds for its customers, with a bank acting as an intermediary, in order to cover the payment of damages to the customer in the event that the Group does not meet its contractual commitments. At 31 December 2018, performance bonds amounted to €1,910.6 million (€1,812.5 million at 31 December 2017). Technical, operational and financial costs incurred by the Group in order to meet its obligations are valued on a contract-by-contract basis, and are included in the cost to

completion of the contract. Where this is not the case, a provision is set aside in the consolidated financial statements for any potential risk, estimated on a contract-by-contract basis.

- **Advance payment bonds:** In order to finance contract execution, the Group may receive advance payments from its customers, in accordance with contractual terms, which are recognised in liabilities in the balance sheet. In order to guarantee reimbursement of these advance payments if the contractual obligations are not met, the Group may deliver, at the customer's request, an advance payment bond. At 31 December 2018, advance payment bonds amounted to €1,991.8 million (€2,143.2 million at 31 December 2017).
- **Warranty retention bonds:** The Group evaluates and sets aside provisions for warranty costs in order to guarantee the conformity of goods sold to the customer during the contractual warranty period. In many cases, the provisional withholding of payment contractually applying during this period can be replaced by a warranty retention bond using a bank as intermediary. At 31 December 2018, warranty retention bonds amount to €147.2 million (€90.4 million at 31 December 2017).

The maturity dates of these commitments are:

	< 1 year	1 to 5 years	> 5 years	31/12/2018	31/12/2017
Bid bonds	13.7	3.3	1.2	18.2	33.6
Performance bonds	732.3	860.7	317.6	1,910.6	1,812.5
Advance payment bonds	1,197.9	763.3	30.6	1,991.8	2,143.2
Warranty retention bonds	125.8	19.2	2.2	147.2	90.4
Other bank bonds	65.1	64.2	27.2	156.5	182.5
TOTAL	2,134.8	1,710.7	378.8	4,224.3	4,262.2

b) Parent company guarantees

Parent company guarantees are issued by Thales. They aim mainly to guarantee its subsidiaries' obligations toward their customers linked to commercial contracts.

They may also be issued to financial institutions, in order to improve the conditions of supports they grant to some subsidiaries.

At December 2018, these guarantees amounted to €13,417.4 million (€12,760.4 million at 31 December 2017).

c) Offsets

The awarding of major contracts, particularly within the defence sector, may be subject legally or statutorily to the execution of local obligations, which can take the form of direct offsets, semi-direct offsets or indirect offsets.

The associated risks are described in section 3.1.1 b) page 43.

NOTE 11. LITIGATION

At the date of publication, there are no government, judicial or arbitration claims of which the Group is aware, which are pending or threatened and which could have or have had, any significant effect on the

financial position or profitability of the Company and/or the Group in the last 12 months.

NOTE 12. SUBSEQUENT EVENTS

On 17 December 2017, Thales and Gemalto jointly announced the signing of an agreement pertaining to a cash offer, at a price of €51 per ordinary share, coupon attached (i.e., the total equity value of approximately €4.8 billion).

The offering document, which included the terms and conditions as well as the offer's consequences, was approved by the Dutch financial markets authority ("AFM") and published on 27 March 2018. The subscription period, which was initially open until 6 June 2018, was extended and will expire two weeks after the satisfaction or waiver of the contingent condition relative to the regulatory authorisations required under this deal, with a deadline of 31 March 2019. At 31 December 2018, Thales and Gemalto had obtained 11 of the required 14 regulatory authorisations.

As part of this transaction, and as required by certain antitrust authorities, Thales announced on 22 February that it had signed a

definitive agreement to dispose of its General Purpose Hardware Security Modules (GP HSM) business to Entrust datacard. This GP HSM business had sales of €106 million in 2018. Associated assets and liabilities are not material in relation to the Group's aggregates. Therefore, they were not specifically identified in the consolidated balance sheet.

Completion of the offer and payment of the offer price to Gemalto shareholders who will have contributed their shares are expected to occur by end March 2019.

In January 2019, Thales completed the acquisition of Ercom, specialised in communications and device security, and Suneris, specialised in solutions for the supervision and control of telecommunication network traffic, for a total of €100 million. These companies employ almost 200 people and reported revenues around €40 million in 2017. They will be fully consolidated as from 1 January 2019.

NOTE 13. ACCOUNTING POLICIES

a) Presentation of the financial statements

Consolidated profit and loss account

Expenses in the income statement are presented analytically by purpose.

Income from operations is equal to income of operating activities before taking into account:

- gains and losses on disposals of property, plant and equipment and intangible assets, businesses or investments;
- the impact of changes in scope on consolidated net income before tax (Note 13-b);
- the impact of the amendment, curtailment or settlement of pension plans and other long-term benefits;
- the impairment of non-current assets;
- other operating items resulting from unusual events, with a material impact on the financial statements.

Consolidated balance sheet

A significant portion of the Group's activities in its different business segments have long-term operating cycles. Accordingly, assets (liabilities) that are usually realised (settled) within the entities' operating cycles (inventory, accounts receivable and payable, advance payments, reserves, etc.) are classified in the consolidated balance sheet as current assets and liabilities, with no distinction between the amounts due within one year and those due after one year.

Consolidated statement of cash flows

The statement of cash flows provides an analysis of the change in cash and cash equivalents, as presented in the balance sheet and defined in note 13-h. The statement of cash flows is prepared using the indirect method based on consolidated net income and is broken down into three categories:

- net cash flow from operating activities (including interest and taxes);
- net cash flow used in investing activities, including net operating investments (acquisition and disposal of property, plant and equipment and intangible assets, capitalisation of development costs) and net financial investments;
- net cash flow used in financing activities including dividends paid, capital subscriptions (exercise of options by employees), the purchase/sale of treasury shares, the issuance and repayment of debt, and changes in bank overdrafts, etc.

The Group also discloses the changes in its **net cash**, which is a non-GAAP measure. It includes financial debt, net of cash and cash equivalents and liquid investments. Changes in net cash, presented in Note 6.4, notably reflect **free operating cash flow**, defined as net cash flow from operating activities less net operating investments, plus the deficit payment linked to UK pension plans.

Adjusted net income

In order to monitor and compare its operating and financial performances, the Group presents the following key indicators:

EBIT, corresponding to income from operations plus the share in net income of equity affiliates minus the amortisation of acquired intangible assets (purchase price allocation – PPA), and other expenses, directly related to business combinations.

Adjusted net income is presented in the Group's management report. It corresponds to consolidated net income attributable to shareholders of the parent company, less the following items, net of the corresponding tax impacts:

- amortisation of acquired intangible assets (PPA);
- other expenses directly related to business combinations;
- impairment of non-current assets;
- disposal changes in scope of consolidation and others;
- changes in the fair value of derivative foreign exchange instruments, recognised in "Other financial income";
- actuarial gains and losses on long-term employee benefits, included in "financial income on pensions and other employee benefits".

Adjusted net income per share corresponds to the adjusted net income attributable to shareholders of the parent company, divided by the average number of shares outstanding during the period concerned.

Off-balance sheet commitments

Disclosures regarding off-balance sheet commitments are presented in the following notes:

- Note 4.3: lease commitments;
- Note 9.3-f: funding obligations in respect of pensions;
- Note 10.5: commercial contract commitments.

Related parties

The Group has identified the following related parties: shareholders of Thales SA (parent company), notably the French State and Dassault Aviation, companies controlled by these shareholders, companies under joint control or significant influence, Directors and Senior Corporate Officers.

Section 4.2.3.3 of the 2017 Registration Document describes the main provisions concerning the shareholders' agreement governing relations between the French State ("Public Sector") and Dassault Aviation ("Industrial Partner") within Thales, the convention on the protection of national strategic interests and the specific convention binding the State and Thales.

Information related to transactions with related parties is presented in the following notes:

- sales with the French State (mainly with the *Direction Générale de l'Armement*, the French defence procurement agency) in Note 6.6-b;
- transactions with companies under joint control in Note 5.1-e.

Transactions with other related parties are not material.

Expenses recognised in respect of compensation, benefits and social security contributions attributable to Directors and members of the Executive Committee are presented in Note 9.5.

b) Scope of consolidation and changes in scope

Scope of consolidation

The financial statements of material subsidiaries directly or indirectly controlled by Thales are fully consolidated. The financial statements of material subsidiaries jointly controlled by Thales (joint ventures) or in which the Group has significant influence (associates) are accounted for under the equity method.

The main consolidated companies are listed in note 15.

The full list of affiliates outside of France is available on the Group's website (<https://www.thalesgroup.com/en/homepage/worldwide/responsabilite>).

Business combinations

Business combinations are accounted for under the acquisition method as described in IFRS 3. Under this method, the Group recognises identifiable assets acquired and liabilities assumed at fair value on their acquisition date. It also recognises non-controlling interests in an acquiree on their acquisition date.

Non-controlling interests are measured either at fair value or proportionate to the share of the identifiable net assets. This is determined on a case-by-case by the Group depending on the option it applies.

Acquisition-related costs (valuation fees, consulting fees, etc.) are recognised under "other operating expenses" as incurred.

Negative goodwill is immediately recognised in "other operating income". Positive goodwill related to controlled companies is recognised in balance sheet assets under intangible assets. Positive goodwill related to equity affiliates is recognised under "investments in joint-ventures/associates".

Goodwill is not amortised but is subject to impairment tests each year. Goodwill impairment is booked as an expense under "impairment" and may not be reversed. Goodwill impairment related to equity affiliates is recognised in "share in net income of equity affiliates" and may be reversed.

c) Revenue

The Group's principles of revenue recognition are the following:

Unbundling of multiple performance obligations within a single contract

Some contracts include the supply to the customer of distinct goods and services (for instance contracts combining building of assets, followed by operation and maintenance). In such situations, the contract must be segmented into several components ("performance obligations"), each component being accounted for separately, with its own revenue recognition method and margin rate.

The contract price is allocated to each performance obligation in proportion to the specific selling price of the underlying goods and services. This allocation should reflect the share of the price to which Thales expects to be entitled in exchange for the supply of these goods or services.

Options notified by the customer for the supply of distinct additional goods or services are generally accounted for separately from the initial contract.

Evaluation of revenue allocated to performance obligations

Variable considerations included in the selling price are taken into account only to the extent that it is highly probable that a significant reversal in the amount of revenue already recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

Penalties for late delivery or for the improper execution of a performance obligation are recognised as a deduction from revenue.

If the financing component is deemed significant, the selling price is adjusted to reflect a "cash" selling price for the goods and services provided. A financing component exists when parties have agreed to set up a financing to the advantage of one of them, through contractual terms.

Revenue includes income from claims only when it is highly probable that such claims will be accepted by the customer.

Contractual amendments negotiated with customers are included in the selling price only when they become legally enforceable.

Recognition of revenue over time or at a point in time

Revenue associated with each performance obligation identified within a contract is recognised when the obligation is satisfied, i.e., when the control of the promised goods or services is transferred to the customer.

To demonstrate that the transfer of goods is progressive and recognise revenue over time, the following cumulative criteria are required:

- the goods sold have no alternative use, and;
- the Group has an irrevocable right to payment (corresponding to costs incurred, plus a reasonable profit margin) for the work performed to date, in the event of termination for reasons other than Thales' failure to perform as promised.

These criteria are fulfilled by the vast majority of Group contracts that include the design and delivery of complex goods.

Revenue from the sale of goods with an alternative use, and/or for which the Group has no enforceable right to payment in case of termination for convenience by the customer, is recognised when the goods are delivered to the customer. This essentially concerns equipment (mainly in civil avionics) and spare parts.

Revenue from service contracts is generally recognised over time, as the customer simultaneously receives and consumes the benefits of these services provided by Thales.

Percentage of completion method

The percentage of completion method generally used by the Group is expense-based: revenue is recognised based on costs incurred to date in relation to all the costs expected upon completion.

Margin recognition

Expected losses on contracts are fully recognised as soon as they are identified, pursuant to the provisions of IAS 37 on onerous contracts.

Order book

Order book (as disclosed in Note 2.3) corresponds to the amounts of the selling price allocated to the performance obligations not yet unsatisfied (or partially unsatisfied) at the closing date.

d) Operating assets and liabilities

Inventories and work in progress

Inventories and work in progress are carried at their production cost (determined using the FIFO or weighted-average cost method) and written down when their net sale value becomes lower than the production cost. Work in progress, semi-finished and finished goods are stated at direct cost of raw materials, production labour and subcontractor costs incurred during production, plus an appropriate portion of production overhead and any other costs that can be directly allocated to contracts.

When material, the cost of debt incurred during the construction period of a qualifying asset is incorporated in the value of this asset. If the funding is specific, the loan interest rate is used, otherwise the Group's financing rate is used.

Set-up costs

These costs cover preparatory work, not directly financed by the customer but necessary for the execution of the contract. They do not participate to the determination of the percentage of completion of the contract. They are capitalised and amortised as and when the revenue is recognised.

Contract assets and liabilities

The cumulated amount of revenue accounted for, less progress payments and accounts receivable (presented on a dedicated line of the balance sheet) is determined on a contract-by-contract basis. If this amount is positive, the balance is recognised under "contract assets" in the balance sheet. If it is negative, the balance is recognised under "contract liabilities".

Customer receivables

A receivable is an unconditional right to payment by the customer.

Impairment losses are accounted for, based on a prospective assessment of the credit risk on the initiation of the receivable, and its deterioration over time. The changes in impairment are presented in Note 10.4.

The Group is authorised to assign trade receivables, mainly from the French State, and commercial paper. As these assignments, which are without recourse in case of default by the debtor, involve the transfer of substantially all corresponding risks and rewards (Thales holding the dilution risk), they are "derecognised." Thales' continued involvement (as this is defined by IFRS 7) in the transferred receivables corresponds to the keeping of the recovery mandate.

e) Research and development expenses

A significant share of research and development expenses is funded by customers and government agencies. Internally funded research and development expenses are charged to the profit and loss account as incurred, except for project development costs which meet the criteria of capitalization below:

- the product or process is clearly defined, and costs are separately identified and reliably measured;
- the technical feasibility of the product or project is clearly demonstrated, and the Group's experience in this area is established;
- adequate resources are available to complete the project successfully;
- a potential market for the products exists or their usefulness, in case of internal use, is demonstrated;
- the company intends to produce and market, or use the new product or process, and can demonstrate its profitability. Profitability is assessed on the basis of prudent commercial assumptions in order to reflect contingencies inherent to the long cycles of the Group's activities, in particular Aerospace. Minimum internal rates of return are required in the case of projects deemed risky.

Capitalised development costs mainly relate to the Group's Aerospace and Security activities, for which the products developed are relatively generic and can be sold to a large number of potential customers. By contrast, development costs linked to Defence activities are for more specific and restricted markets with a limited number of players; the specific features of the products developed make it harder to share development work and therefore harder to capitalise the associated costs.

Development costs are then amortised over the useful life of the product. The method of amortisation is generally determined by reference to expected future quantities over the period in which future economic benefits will be earned. If the method cannot be determined reliably, straight-line amortisation is adopted. The period of amortisation depends on the type of activity.

Assets are also subjected to impairment loss tests. The terms and assumptions taken into account to conduct these tests are described in Note 4.1. These impairment losses can be reversed. Impairment loss reversal criteria are identical to those retained when first capitalising development costs on a new project.

The Group receives tax credits related to research carried out by its subsidiaries. These tax credits are considered as operating grants and are therefore included in income from operations, when their award is not dependent on the generation of taxable income. Otherwise, they are recognised as a deduction from income tax expense.

f) Restructuring costs

Provisions for restructuring costs are accounted for when restructuring programmes have been agreed and approved by a competent body and have been announced before the balance sheet date, resulting in an obligating event of the Group to the third parties in question, as long as the Group does not expect compensation for these costs.

These costs primarily relate to severance payments, costs for notice periods not worked and other costs linked to the closure of facilities such as write-offs of fixed assets. These costs and the costs directly linked to restructuring measures (removal costs, training costs of transferred employees, etc.) are recognised under "restructuring costs" in the profit and loss account.

g) Property, plant and equipment and intangible assets

Intangible assets

The Group's intangible assets mainly include:

- goodwill (Note 13-b);
- assets acquired in business combinations, primarily acquired technologies, customer relationships and the order book. These assets are recognised at fair value and amortised over their useful lives. The fair value of the assets is based on the market value. If no active market exists, the Group uses methods based on forecasts of the present value of the expected future operating cash flows (excess earnings method, royalty method, etc.);
- capitalised development costs (Note 13-e).

Intangible assets are submitted to impairment tests.

Property, plant and equipment

Property, plant and equipment is stated at cost, net of any accumulated depreciation and accumulated impairment losses. Depreciation of property, plant and equipment is generally calculated on the basis of the following typical useful lives:

- 20 years for buildings;
- 1 to 10 years for technical facilities and industrial equipment and tooling;
- 5 to 10 years for other property, plant and equipment (vehicles, fixtures, etc.).

The depreciable amount takes into account the residual value of the asset. The various components of property, plant and equipment are recognised separately when their estimated useful lives or patterns of use, and thus the period over which they are depreciated or the depreciation methods applicable to them, are materially different.

Borrowing costs that are directly attributable to the acquisition or construction of an asset are capitalised as part of the cost of that asset.

h) Financial assets, financial liabilities and derivatives

Financial assets

IFRS 9 introduces a single approach to classification and measurement of financial assets, based on the characteristics of the financial instruments and on the Group's management intention. Thus:

- financial assets with expected cash flows that solely correspond to principal and interest payments are measured at amortised costs if managed only to collect these flows;
- in other cases, financial assets are measured at fair value through the income statement, except for equity investments not held for trading and whose changes in value affect optionally the Other Comprehensive Income (OCI).

These principles are reflected as follows on the assets presented in the Group's balance sheet:

- Investments are measured at fair value. Fair value corresponds to the market price for shares quoted on a regulated market. For other shares, fair value is usually determined using valuation models provided by independent third parties, or by reference to the share in net equity held by the Group.

Changes in fair value are recognised either on the income statement or, subject to an irrevocable option, investment by investment, through OCI with no reclassification to the income statement. This latter option has been chosen by the Group for all non-consolidated investments at the end of 2018. Consequently, subsequent changes in fair value and gains (losses) on disposal will be directly accounted for through shareholders' equity, with no impact on the income statement. Only dividends must remain accounted for through the financial result.

- Receivables and financial loans are recognised at amortised cost. They are subject to impairment if an expected loss or an impairment indicator is identified. This impairment, recognised in "other financial income (expense)", may subsequently be reversed through profit and loss if the conditions so justify.
- Deposits that Thales intends to hold until maturity are recognised at amortised cost.
- Other financial assets (including mutual funds and equivalent products) are estimated at fair value through profit and loss.
- "Cash and cash equivalents" include cash at bank and in hand as well as cash equivalents (short-term and liquid investments that are easily converted into a known amount of cash and exposed to negligible risk of a change in value).

Financial liabilities

Borrowings and other financial liabilities are measured at amortised cost using the effective interest rate. Upon initial recognition, premiums, redemption and issuance costs are included in the calculation of the effective interest rate and are recognised in the profit and loss account on an actuarial basis over the life of the loan.

Derivatives

The Group uses financial instruments to manage and reduce its exposure to risks of changes in interest rates and foreign exchange rates.

Foreign exchange derivatives used to hedge commercial contracts, and eligible for hedge accounting are accounted for as follows:

- the effective portion of the change in fair value of the hedging instrument is recognised directly in equity until such time as the hedged flows affect profit and loss. The ineffective portion is recognised in profit and loss;
- the amount of the foreign currency denominated transaction is subsequently translated at the exchange rate prevailing at the date of inception of the hedge.

Changes in the fair value of premiums or discounts related to forward foreign currency contracts are recognised in "other financial income (expense)" as they are excluded from the hedging relationship.

The time value of foreign exchange options documented as hedges is considered as a cost of hedging: changes in fair value are accounted for through OCI, with reclassification to the financial result in line with the hedged item.

Concerning **foreign exchange derivatives subscribed to hedge financial assets/liabilities**, documented as fair value hedges, the swap point is spread over the duration of the financial asset/liability.

Interest-rate derivatives are used either as fair value hedges or cash flow hedges:

- a fair value hedge is a hedge of the exposure to changes in the value of assets and liabilities;
- a cash flow hedge is a hedge of the exposure to changes in the value of future cash flows (unknown future interest flows payable on existing variable-rate borrowings or on highly probable future borrowing issues, for example).

In the case of fair value hedge relationships, particularly for the portion of fixed-rate bond debt swapped for a variable rate, the financial liabilities hedged by the interest-rate derivatives are re-measured to the extent of risk hedged. Changes in the value of hedged items are recognised in profit and loss for the period and are offset by symmetrical adjustments in interest-rate derivatives.

In the case of cash flow hedging relationships, the effective portion of changes in fair value of interest-rate derivatives shown in the balance sheet is recognised directly in equity until such time as the hedged flows affect profit and loss.

i) Deferred tax assets and liabilities

Thales recognises deferred taxes when the tax value of an asset or liability differs from its book value.

Deferred tax assets are not recognised on the balance sheet if it is likely that the company concerned will not be able to recover them. To assess its ability to recover deferred tax assets, the Group takes into account forecast taxable income of the tax entities concerned, generally over a five-year time-frame, non-recurring past events and tax strategies specific to each country.

j) Pensions and other long-term employee benefits

The Group's defined benefit plan commitments are measured by independent actuaries using the projected unit credit method on the basis of estimated salaries at the date of retirement. The calculations mainly take into account assumptions concerning discounting as well as inflation, mortality and staff turnover rates, etc.

Changes in actuarial assumptions and experience adjustments – corresponding to the effects of differences between projected and actual results – give rise to actuarial gains and losses:

- actuarial gains and losses on post-employment benefits are recognised in full within other comprehensive income, and are not subsequently reclassified to profit and loss. Where appropriate, the same treatment is applied to adjustments linked to the ceiling on net assets for plans in surplus;
- actuarial gains and losses on other long-term benefits are recognised immediately in financial income (Note 9.3).

Past service cost, measured in cases of amendments or curtailments of plans, and plan settlements are recognised in full within other operating income (loss) in the period in which it is incurred.

Net interest expense, determined based on the discount rate of obligations, is recognised in financial income.

k) Share-based payment

Free share plans

Thales regularly grants free shares and/or performance shares to its employees. These allotments give rise to an expense representing the fair value of services received at the grant date. This payroll expense is recognised against equity.

The fair value of the services received is calculated by reference to the fair value of the shares at the grant date, less the present value of dividends forfeited by employees during the vesting period, taking into account the presence conditions.

Internal performance conditions are taken into account only by means of an adjustment in the projected number of instruments acquired by employees at the end of the vesting period. Therefore, they are not taken into account in the fair value estimate of the instruments granted, which is determined at the grant date.

The expense related to these plans is included in the income from operations with the consolidated reserves account as counterpart without impact on total equity. As the payment of compensation is subject to presence conditions, the corresponding expense is recorded over the vesting period on a straight-line basis. When appropriate, the expense is adjusted over the vesting period to reflect any losses of rights.

Share unit plans indexed to the value of Thales shares

A share unit plan indexed to the value of Thales shares, some of which are performance shares, was implemented in 2014 and in 2015. At the maturity date, the beneficiaries will receive the value, about half of which is in the form of shares and half in the form of cash-settled share-based payment.

The proportion delivered in shares follows the same accounting policies as those applied to free share plans. The accounting treatment applicable to cash-settled share-based payments is governed by IFRS 2. Under this policy, the services acquired and the liability incurred are measured at fair value. Until the liability is settled, debt is re-measured at each reporting date, with any changes in fair value recognised in income for the period. The re-measurement of the liability takes into account any changes in the value of the underlying shares, as well as whether or not the presence conditions and performance criteria have been met.

Phantom shares indexed to the value of Thales shares

Since those are cash-settled plans, IFRS 2 requires an evaluation of vested services and the liability assumed at fair value. Until the payment of this liability, the debt is re-measured at the closing date and taken to profit and loss. The re-measurement of the debt takes into account the achievement of performance and/or presence conditions, as well as the change in value of the underlying shares.

Company savings plans

Employee share offerings with a discount to the average market price proposed within Company savings plans do not include any vesting period for rights but are subject to a legal five-year lock-up period. The measurement of the benefits granted to employees takes into account the cost of the five-year lock-up period.

NOTE 14. FEES PAID TO STATUTORY AUDITORS

Total fees paid to Thales's statutory auditors by the parent company and members of their consolidated networks for financial years 2018 and 2017 are shown below.

Other services cover tasks required by law (e.g., interim dividend, capital increase, etc.) and other services compatible with the statutory auditors' role (certification of expenditures, agreed procedures engagements, services of a tax-related nature without material impact, etc.).

(in € thousands)	Mazars		Ernst & Young Audit		Total	
	2018	2017	2018	2017	2018	2017
Certification of accounts	5,007	6,221	4,841	5,052	9,848	11,273
• Issuer	696	927	881	920	1,577	1,847
• Subsidiaries	4,311	5,294	3,960	4,132	8,271	9,426
Other services	546	690	812	1,030	1,358	1,720
• Issuer	180	197	108	193	288	390
• Subsidiaries	366	493	704	837	1,070	1,330
TOTAL	5,553	6,911	5,653	6,082	11,206	12,993

NOTE 15. LIST OF MAIN CONSOLIDATED COMPANIES

(excluding Thales SA, the parent company)

Company name	Country	% interest 31/12/2018	% interest 31/12/2017
1. Consolidated subsidiaries^(a)			
Thales Alenia Space SAS	France	67%	67%
Thales Alenia Space Italia SpA	Italy	67%	67%
Thales Australia Ltd	Australia	100%	100%
Thales Avionics, Inc.	United States	100%	100%
Thales Avionics Electrical Systems SAS	France	100%	100%
Thales AVS France SAS	France	100%	100%
Thales Canada Inc.	Canada	100%	100%
Thales Defense & Security, Inc.	United States	100%	100%
Thales Deutschland GmbH	Germany	100%	100%
Thales DMS France SAS	France	100%	100%
Thales e-Security, Inc.	United States	100%	100%
Thales Espana Grp, S.A.U.	Spain	100%	100%
Thales Ground Transportation Systems UK Ltd	United Kingdom	100%	100%
Thales Italia SpA	Italy	100%	100%
Thales IAS France SAS	France	100%	100%
Thales Nederland B.V.	Netherlands	99%	99%
Thales Services SAS	France	100%	100%
Thales SIX GTS France SAS	France	100%	100%
Thales Solutions Asia Pte Ltd	Singapore	100%	100%
Thales Transport & Security (Hong-Kong) Ltd	Hong-Kong	100%	100%
Thales Transport & Security Ltd	United Kingdom	100%	100%
Thales UK Ltd	United Kingdom	100%	100%
Trixell SAS	France	51%	51%

Company name	Country	% interest 31/12/2018	% interest 31/12/2017
2. Joint ventures (equity method)			
Thales Raytheon Systems Air and Missile Defense Command and Control SAS	France	50%	50%
Naval Group	France	35%	35%
Diehl Aerospace GmbH	Germany	49%	49%
Sofradir SAS	France	50%	50%
3. Associates (equity method)			
Aviation Communications & Surveillance Systems	United States	30%	30%
Airtanker Holdings Ltd	United Kingdom	13%	13%
Elettronica SpA	Italy	33%	33%
Telespazio SpA	Italy	33%	33%

(a) Companies with sales representing more than 0.5% of consolidated sales.

German entity Electronic Signalling Services (ESS) GmbH, located at 1 Thalesplatz, 71254 Ditzingen, has requested to be exempted from its obligation to publish statutory financial statements for the year 2017, pursuant to paragraph 3, subparagraph 264, of the German commercial Code.

7.2 PARENT COMPANY MANAGEMENT REPORT AND FINANCIAL STATEMENTS

7.2.1 Parent company management report

7.2.1.1 Activity and results

Operating income amounted to €744 million, compared with €741 million in 2017. Sales totalled €229 million, compared with €259 million in 2017.

Activities are described by sector in the accompanying notes.

Revenues mainly consist of rents and property work re-billed to operating subsidiaries and sales of research, chiefly conducted by the Central Research and Technology Department of Thales Group. The decrease in revenues is primarily due to a significant decline in the billing of property work over 2018.

Other operating income amounted to €482 million, compared with €443 million in 2017. It includes royalties paid by direct operating subsidiaries, as well as expenses re-billed to those subsidiaries, including for general and specific centralised services provided by the parent company, and capitalised production.

Net loss from operations amounted to -€160 million, compared with a loss of -€90 million in 2017.

Net financial income was €558 million, compared with €516 million in 2017.

Provisions for equity investments and subsidiary risks totalled -€79 million in 2018 compared with -€42 million in 2017. Reversals of provisions for equity investments and subsidiary risks represented €16 million in 2018 compared with €10 million in 2017.

Income from investments amounted to €621 million in 2018, versus €545 million in 2017.

Non-recurring expense amounted to -€6 million, compared with -€53 million in 2017. The previous financial year took account of disposal transactions, including the Thales Belgium SA liquidation for -€27 million.

The Company recorded an income tax benefit of €61 million compared with €10 million in 2017, due largely to an increase in the benefit resulting from tax consolidation.

In 2018, non-deductible expenses pursuant to Articles 223 quarter and 39.4 of the French General Tax Code amounted to -€0.2 million.

Net profit for financial year 2018 came to €453 million, compared with €384 million in 2017.

7.2.1.2 Balance sheet at 31 December 2018

The balance sheet total at year-end 2018 was €16,890 million, up €2,254 million from €14,636 million at year-end 2017.

The total non-current assets of €9,878 million (€9,241 million in 2017) are mainly composed of financial investments.

The €156 million increase in equity investments is mainly due to the capital increase of Thales Canada Inc for €117 million.

Other financial investments increased by €472 million. A loan to Thales Holdings UK Plc was implemented for €492 million with a maturity date of 2021.

Current assets rose €1,615 million to €7,011 million at end-December 2018, including cash on hand of €1,358 million. This change is due firstly to the bond issues in the plan to acquire Gemalto and secondly to the improved operating cash flow of subsidiaries.

The -€37 million decrease in the item "Other receivables" mainly reflects the -€70 million decrease in tax receivables from the French government that was partially offset by the item rent holidays obtained from landlords pending repayment to subsidiaries.

Other investments of €250 million correspond to term deposits with banks with maturities of 3 to 12 months.

The balance of Group companies' current accounts represented net debt of €4,628 million at year-end 2018, compared with €4,450 million at year-end 2017.

"Borrowings" amounted to €3,097 million at year-end 2018, versus €1,571 million at year-end 2017. They mainly include bond issues for a total amount of €2,400 million, as well as foreign-currency and euro denominated borrowings from Group subsidiaries and associates.

At year-end 2018, share capital stood at €639.0 million and total equity came to €6,969 million, compared with €6,882 million at year-end 2017.

Customer and Supplier payment schedules

Thales pays its suppliers 60 days after invoice date, in line with the maximum period allowed under the French law on the modernisation of the economy (*Loi de modernisation de l'économie – LME*).

The table below presents the ageing of receivables and payables by invoice date:

► INVOICES RECEIVED AND ISSUED AT THE CLOSING DATE OF THE FINANCIAL YEAR JUST ELAPSED (TABLE PROVIDED FOR IN SECTION I, ARTICLE D. 441-4)

	Article D. 441 I.-1e: Invoices received and not settled at the close of the financial year just ended						Article D. 441 I.-2e: Invoices issued and not settled at the close of the financial year just ended					
	Day 0 (illustrative)	1 to 30 days	31 to 60 days	61 to 90 days	91 or more days	Total (1 or more days)	Day 0 (illustrative)	1 to 30 days	31 to 60 days	61 to 90 days	91 or more days	Total (1 or more days)
A. Payment period tranches												
Number of invoices involved	825					600	445					700
Total value of invoices involved (including taxes)	68.8	2.5	3.8	0.5	2.5	9.3	31.5	37.6	4.7	2.4	13.3	58.0
Percentage of total purchases during the year (including taxes)	10.72%	0.40%	0.59%	0.08%	0.38%	1.45%						
Percentage of total sales during the year (including taxes)							3.95%	4.72%	0.59%	0.30%	1.67%	7.29%
B. Invoices excluded from (A) corresponding to debts and receivables in dispute or not posted												
Number of invoices excluded						172						—
Total value of invoices excluded (incl. tax)						7.4						—
C. Reference payment periods used (contractual or legal periods – Articles L. 441-6 or L. 443-1 of the French Commercial Code)												
Payment periods used for calculating payment terms	Contractual periods: 45 days end of month						Contractual periods: 45 days end of month					

7.2.1.3 Events after the reporting period

In addition, on 17 December 2017, Thales and Gemalto jointly announced the signing of an agreement relating to a cash offer at the price of €51 per ordinary share (coupon attached). The progress of the deal is described in Note 22 to the financial statements of the parent company.

7.2.1.4 Outlook for the current financial year

The Company results for 2019 are expected to reflect the dividends paid by certain subsidiaries for financial year 2018 and changes in provisions for impairment of equity investments and subsidiary risks as a consequence of trends in their business and performance in 2019.

7.2.1.5 Proposed allocation of earnings and dividend policy

The Annual General Meeting, deliberating under the *quorum* and majority conditions required for annual general meetings, noted⁽¹⁾ that distributable earnings include:

The net profit for financial year 2018	€453,410,488.40
Less allocations to legal reserve	(€133,606.80)
Plus retained earnings at 31 December 2018	€1,607,260,516.35
Plus interim dividend in the amount of €0.50 per share paid on 6 December 2018 and deducted from retained earnings	€106,276,140.00
For a total amount of	€2,166,813,537.95

The Annual General Meeting decided⁽¹⁾ to allocate this amount as follows:

Distribution of a dividend of €2.08 per share on 213,104,081 shares bearing rights as from 1 January 2018 (including the interim dividend of €0.50 per share paid on 6 December 2018 charged to the 2018 dividend, for a total amount of €106,276,140.00)	€443,256,488.48
Retained earnings after dividend	€1,723,557,049.47
Total equivalent to distributable earnings	€2,166,813,537.95

The Annual General Meeting notes that, taking into account the interim dividend of €0.50 per share paid on 6 December 2018 and deducted from retained earnings, the remaining dividend to be paid out is €1.58 per share.

The ex-dividend date is 21 May 2019 and payment date for the balance of the dividend will be 23 May 2019.

The sums corresponding to the dividends which, in accordance with the provisions of the fourth paragraph of Article L. 225-210 of the French Commercial Code, have not been paid on treasury shares held by the Company, will be reallocated as retained earnings.

For individuals domiciled in France who have not expressly, irrevocably and globally opted to be subject to income tax on a progressive scale, the dividend is subject to a flat tax rate (*prélèvement forfaitaire unique* or PFU) of 30%. For individuals domiciled in France who have exercised such an option, this dividend is subject to income tax on a progressive scale and is eligible for the 40% allowance provided by Article 158.3.2° of the French General Tax Code.

In accordance with the law, the amounts of dividends paid out for the past three financial years are provided below:

Financial year	Dividend per share	Total amount paid out
2015	€1.36 ^(a)	€285,659,762.04
2016	€1.60 ^(a)	€338,279,587.20
2017	€1.75^(a)	€371,025,506.25

(1) The dividend corresponds to all income distributed for the financial year. The full dividend amount was eligible for the tax relief provided for in Article 158-3 2° of the French General Tax Code.

(1) Subject to approval by the Annual General Meeting of 15 May 2019.

7.2.1.6 Parent company management report cross-reference table

In accordance with Articles L. 225-100, L. 232-1, L. 247-1 and R. 225-102 of the French Commercial Code, the parent company management report includes the following information contained in the "2018 Registration Document":

Management report French Commercial Code	Sections/Notes	Pages
1. Thales (parent company) financial statements at 31 December 2018	Section 7.2	
Table of subsidiaries and equity affiliates	Note 23	250
Table of investments made and shareholding disclosures in French companies	Note 23	250
Table showing the company's earnings in the last five financial years	Section 7.2	223
Table of outstanding stock purchase and subscription options at 31 December	Note 15	241
Change in number and in value of the treasury shares of the Company	Note 14	240
Write-back of general expenses following tax adjustment	Note 6	234
Events after the reporting period	Note 22	249
Information on existing branches (Article L. 232-1, II of the French Commercial Code)	Note 24	253
2. Risk factors, internal control and risk management	Section 3	57
3. Management report and consolidated financial statements of the Group at 31 December 2018	Section 2 & 7	14 and 172
Presentation of the activities of the Company, its subsidiaries and controlled companies	Section 2.1	14
Description of the main risks and uncertainties facing the Group	Section 3.1	43
Information on the use of financial instruments (supplementing the notes to the financial statements)	Section 7.6.1	193
Information on the research and development activities	Section 2.2	23
4. Corporate Governance	Section 4	
Compensation of other Group executives	Section 4.5	98
Share-based payments	Section 6.2.2, 7.1.6	155, 210
5. Company and share capital	Section 6	
Breakdown of shareholders and changes performed during the financial year	Section 6.2.1.3	154
Employee's stake in share capital	Section 6.2.3.7	164
Awards of free shares and performance units made during the financial year	Section 6.2.3.5	161 et 162
Description of the share repurchase program adopted by the Annual General Meeting of 23 May 2018	Section 6.2.3.4	160
Transactions involving treasury shares during the financial year	Section 6.2.3.4.3.2	160
Summary statement of transactions carried out during the financial year by directors, non-voting directors and related persons	Section 4.6	99
Regulated agreements (continued existing agreements, with the exception of the assistance agreement between Thales and TSA which is now subject to the rules applicable to agreements relating to current operations (L. 225-39 of the French Commercial Code)	Section 6.3	165
Thales share price trend over the past two financial years	Section 6.4.1	167
6. Extra-financial Performance Declaration, including	Sections 1, 3 & 5	
Business model	Section 1	6 to 13
Main risks taken into account	Section 3 and 5.2	42 and 102
Policies and measurements of associated results	Section 5.3 to 5.7	105 to 146
Report of the Independent Third-Party	Section 5.8	147
Cross-reference table for the non-financial performance statement	Section 8.6	272
Other social and environmental information in the management report (Art. L. 225-100-1 2° and 4°, L. 225-102-2, L. 225-102-4 and L. 225-37-1 of the French Commercial Code)	Section 5.4 and 5.5	106 and 122
Duty of Care Plan	Section 5.7.3.2	141

7.2.2 Thales parent company financial statements at 31 December 2018

7.2.2.1 Income statement by type

(in € millions)	Notes	2018	2017
Re-billing of rent and building work		211.8	244.4
Research		16.8	14.1
Revenues		228.6	258.5
Royalties		247.4	231.1
Re-billing of expenses		234.5	212.3
Other operating income		481.9	443.4
Reversals of provisions		22.7	21.3
Transfer of expenses		10.7	18.0
TOTAL OPERATING INCOME		743.9	741.2
Purchases and changes in inventories and work in progress		(48.8)	(40.2)
Other external charges		(579.4)	(533.2)
Taxes other than on income		(12.3)	(11.8)
Personnel expenses		(226.4)	(207.7)
Depreciation and amortisation		(17.2)	(20.8)
Increase in provisions for impairment		(19.6)	(17.1)
Total operating expenses		(903.7)	(830.8)
INCOME (LOSS) FROM OPERATIONS	Note 3	(159.8)	(89.6)
Net interest and finance costs		(7.5)	(1.0)
Income from investments		620.9	544.7
Other financial income		56.4	37.6
Other financial expenses		(111.6)	(65.2)
Financial income (expense)	Note 4	558.2	516.1
PROFIT (LOSS) FROM ORDINARY ACTIVITIES BEFORE INCOME TAX		398.4	426.5
Non-recurring income (expense)	Note 5	(6.4)	(52.5)
PROFIT (LOSS) BEFORE INCOME TAX		392.0	374.0
Income tax benefit (expense)	Note 6	61.4	9.8
PROFIT FOR THE YEAR		453.4	383.8

The Notes to the financial statements are an integral part of the parent company financial statements.

7.2.2.2 Consolidated balance sheet

Assets

(in € millions)	Notes	31/12/2018	31/12/2017
Intangible assets and property, plant and equipment, net	Note 7	104.8	112.3
Equity investments	Note 8	9,155.5	8,999.0
Treasury shares not assigned to plans	Note 14	67.3	50.3
Other financial investments	Note 9	550.9	79.1
Total non-current assets		9,878.5	9,240.7
Inventories and work in progress		17.6	11.8
Advances to suppliers	Note 16	0.1	0.4
Trade receivables	Note 16	201.4	197.1
Other receivables	Note 16	290.7	327.6
Group company current account payables	Note 10	1,439.0	1,079.3
Accrued interest		2.8	3.8
Other investments	Note 11	250.0	325.0
Cash and cash equivalents	Note 11	4,809.4	3,450.5
Total current assets		7,011.0	5,395.5
TOTAL ASSETS		16,889.5	14,636.2

Shareholders' equity and liabilities

(in € millions)	Notes	12/31/2018	12/31/2017
Share capital		639.3	638.0
Additional paid-in capital		4,068.2	4,053.2
Reserves and retained earnings		1,808.5	1,806.8
Profit for the year		453.4	383.8
Total shareholders' equity	Note 13	6,969.4	6,881.8
Provisions for contingencies and losses	Note 17	204.9	199.0
Borrowings	Note 12	3,096.9	1,570.7
Group company current account payables	Note 10	6,066.5	5,528.9
Advances received on contracts in progress	Note 16	19.0	17.8
Trade payables	Note 16	164.3	86.8
Other payables	Note 16	368.5	351.2
Total liabilities		9,715.2	7,555.4
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		16,889.5	14,636.2

The Notes to the financial statements are an integral part of the parent company financial statements.

7.2.2.3 Statement of cash flows

(in € millions)	Notes	2018	2017
Profit for the year		453.4	383.8
Add (deduct):			
Net depreciation, amortisation and impairment charges on intangible assets and property, plant and equipment	Note 7	17.2	20.8
Provisions for post-employment and other employee benefits	Note 17	(2.2)	5.2
Net provisions for impairment of investments and subsidiary risks	Note 4	62.9	32.3
Loss (gain) on disposals of assets	Note 5	(1.6)	40.4
Other items		(26.6)	(6.1)
Operating cash flow		503.1	476.4
Change in working capital and provisions for operating contingencies and losses		185.8	261.1
CASH FLOW FROM OPERATING ACTIVITIES	- I -	688.9	737.5
Payments for acquisitions of intangible assets and property, plant and equipment		(8.0)	(13.1)
Proceeds from disposal of intangible assets and property, plant and equipment		—	—
Net operating investment		(8.0)	(13.1)
Investments in subsidiaries and associates	Note 8	(175.9)	(281.2)
Disposals of subsidiaries and associates	Note 8	—	9.8
Decrease (increase) in other investments		73.5	(74.8)
Decrease (increase) in other financial investments and treasury shares		(514.5)	(12.4)
Decrease (increase) in current account receivables		(355.2)	(223.3)
Net financial investment		(972.1)	(581.9)
CASH FLOW USED IN INVESTING ACTIVITIES	- II -	(980.1)	(595.0)
Dividend distributions	Note 13	(382.1)	(348.9)
Increase in share capital (exercise of subscription options)		16.4	18.0
Increase in borrowings		2,164.8	207.7
Decrease in borrowings		(681.3)	(128.9)
Increase (decrease) in current account payables		532.3	377.0
CASH FLOW FROM FINANCING ACTIVITIES	- III -	1,650.1	124.9
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	I + II + III	1,358.9	267.4
Cash and cash equivalents at the beginning of the period		3,450.5	3,183.1
Cash and cash equivalents at the end of the period		4,809.4	3,450.5

The Notes to the financial statements are an integral part of the parent company financial statements.

7.2.2.4 Statement of changes in equity

(in € millions)	Number of shares outstanding (in thousands)	Share capital	Issue premiums	Retained earnings paid	Profit for the year	Total shareholders' equity
At 1 January 2017	212,195	636.6	4,036.9	1,724.6	431.1	6,829.2
Allocation of 2016 earnings	—	—	—	431.1	(431.1)	—
Dividends	—	—	—	(348.9)	—	(348.9)
Capital increase	464	1.4	16.3	—	—	17.7
2017 profit	—	—	—	—	383.8	383.8
At 31 December 2017	212,659	638.0	4,053.2	1,806.8	383.8	6,881.8
Allocation of 2017 earnings	—	—	—	383.8	(383.8)	—
Dividends (see Note 13.2)	—	—	—	(382.1)	—	(382.1)
Capital increase	445	1.3	15.0	—	—	16.3
2018 profit	—	—	—	—	453.4	453.4
At 31 December 2018	213,104	639.3	4,068.2	1,808.5	453.4	6,969.4

The Notes to the financial statements are an integral part of the parent company financial statements.

7.2.2.5 Notes to the parent company financial statements

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All the amounts in these notes are expressed in millions of euros (€m), with the exception of information related to numbers of employees and shares.

NOTE 1. ACCOUNTING PRINCIPLES

Thales is a French public limited company (*société anonyme*) and the parent company of Thales Group.

The Thales parent company financial statements are prepared in accordance with the accounting principles applicable in France pursuant to the provisions of the French General Chart of Accounts (*Plan Comptable Général*) as defined in ANC Regulation 2014-03 (consolidated version as at 1 January 2019).

These principles are detailed in each note hereafter.

NOTE 2. CHANGE IN THALES'S DIRECTLY OWNED INVESTMENTS

In 2018, Thales subscribed to the capital increase of its subsidiaries as follows:

- on 22 February: Thales Digital Factory SAS in the amount of €48.6 million, of which €35.6 million was not paid up;
- on 25 June: Thales Global Services SAS in the amount of €21.0 million;
- on 6 December: Gerac SAS in the amount of €6.2 million;
- on 21 December: Thales Canada Inc in the amount of €116.7 million;
- on 21 December: Thales Belgium SA in the amount of €19.0 million.

The following mergers took place in 2017 as part of the simplification of the legal structures in France:

- Merger of Thales Underwater Systems SAS and Thales Microelectronics SAS into Thales Systems Aéroportés SAS, renamed Thales DMS France SAS effective 1 January 2018.

For such a scenario, Thales had previously sold its Thales Microelectronics SAS shares to Thales Systèmes Aéroportés SAS for €4.6 million.

Thales now wholly owns Thales DMS France SAS.

- Merger of TDA Armements SAS, Thales Angénieux SAS, Thales Optronique SAS, Thales Air Operations SAS and Thales Cryogénie SAS into Thales Air Systems SAS, renamed Thales IAS France SAS effective 1 January 2018.

For such a scenario, Thales had previously bought Thales Air Systems SAS shares from Thales Systèmes Aéroportés SAS for €218.40 million and sold its Thales Cryogénie SAS shares to Thales Air Systems SAS for €0.7 million after recapitalising it for €1.0 million. Thales Systems Ireland Ltd merged into Thales Air Systems SAS.

Thales now wholly owns Thales IAS France SAS.

- Merger of Thales Avionics LCD SAS, Thales Electron Devices SAS and Thales Training & Simulation SAS into Thales Avionics SAS, renamed Thales AVS France SAS as at 1 January 2018. For such a scenario, Thales had previously recapitalised Thales Electron Devices SAS for €40.0 million. Thales now wholly owns Thales AVS France SAS.

Thales had also recapitalised Thales Seso SAS for €21.8 million and wound up Thales Belgium SA. After receiving a dividend of €25.9 million, the liquidation loss amounted to €26.8 million (see Note 5.2). At the same time Forges de Zeebrugge was renamed Thales Belgium SA.

NOTE 3. OPERATING PROFIT (LOSS)

In addition to its functions as a holding company (holding equity investments, managing central support functions and cash pooling), the parent company manages the real estate of its French operating subsidiaries and carries out its own research activity in France.

3.1 Operating income

Consequently, operating income includes:

- rents re-billed to operating subsidiaries and sales of research, which represent the revenues of the parent company (€228.6 million in 2018 versus €258.5 million in 2017), mainly generated in France;
- royalties paid by subsidiaries for shared services, and re-billed expenses for general and specific services provided to the subsidiaries by the parent company.

3.2 Operating expenses

Operating expenses mainly comprise personnel expenses (employees of the Thales parent company and directors), real estate rents and related services, and other external services (including those provided by Thales Global Services SAS, which incorporates the Group's shared services).

NOTE 4. FINANCIAL INCOME (EXPENSE)

4.1 Accounting principles

Financial income (expense) mainly includes:

- interest expenses and finance costs on net debt;
- income and expenses related to Thales's directly owned investments (dividends and depreciation, see Note 8);
- the financial component of the increase in provisions for post-employment and other employee benefits (see Note 17);
- foreign exchange gains and losses (see Note 20).

4.2 Breakdown of financial income (expense)

	Notes	2018	2017
NET INTEREST AND FINANCE COSTS		(7.5)	(1.0)
Interest and financial income on financial receivables:		22.9	17.2
Interest on Group company current account receivables and loans to subsidiaries and associates		11.1	4.9
Interest on cash and cash equivalents		11.8	12.3
Interest and financial expenses:		(28.7)	(26.9)
Interest on Group company current account payables and borrowings from subsidiaries and associates		(5.4)	(6.6)
Interest on bonds and other borrowings		(23.3)	(20.3)
Interest on interest rate swaps hedging borrowings		2.9	9.7
Interest on foreign exchange swaps hedging subsidiary financing		(4.6)	(1.0)
INCOME FROM INVESTMENTS	Note 23	620.9	544.7
OTHER FINANCIAL INCOME		56.4	37.6
Reversal of provisions related to associates ^(a)		15.9	9.9
Reversal of provisions for termination payments and other benefits	Note 17	3.3	–
Reversal of impairment provision advance for Thales Security Solutions & Services		25.5	–
Foreign exchange gains		8.3	23.6
Reversal of provisions for exchange rate risks		–	1.8
Amounts recovered on clawback provisions		–	1.2
Other		3.4	1.1
OTHER FINANCIAL EXPENSES		(111.6)	(65.2)
Increase in provisions related to associates ^(a)		(78.8)	(42.2)
Increase in provisions for impairment of treasury shares		–	(2.1)
Increase in provisions for termination payments and other benefits	Note 17	(1.7)	(9.0)
Exchange loss		(0.5)	(0.1)
Increase in provisions for exchange rate risk		(0.6)	(1.9)
Increase in provisions for money market funds ("SICAV")		(1.2)	–
Debt write-offs for Thales Security Solutions & Services		(25.5)	(7.5)
Other		(3.3)	(2.4)
FINANCIAL INCOME (EXPENSE)		558.2	516.1

(a) Provisions related to subsidiaries and associates	2018		2017	
	Reversal	Increase	Reversal	Increase
Provisions for impairment of equity investments	0.3	(55.3)	–	(27.3)
Thales Digital Factory SAS	–	(35.6)	–	(0.1)
Thales Global Services SAS	–	(6.8)	–	(6.2)
Gerac SAS	–	(5.4)	–	(0.1)
Thales SESO SAS	–	(4.7)	–	(10.3)
Avimo Group Ltd	–	–	–	(10.4)
Other	0.3	(2.8)	–	(0.2)
Provisions for subsidiary risks (see Note 17.2)	15.6	(23.5)	9.9	(14.9)
Thales Digital Factory SAS	7.9	–	–	(7.9)
Thales Global Services SAS	5.3	–	–	(5.3)
Gerac SAS	1.7	–	–	(1.7)
Société Immobilière Pour l'Electronique	0.7	–	–	–
Thales Security Solutions & Services	–	(23.5)	–	–
Thales SESO SAS	–	–	9.9	–
TOTAL	15.9	(78.8)	9.9	(42.2)

NOTE 5. NON-RECURRING INCOME (EXPENSE)

5.1 Accounting principles

Non-recurring income (expense) includes:

- restructuring costs;
these primarily relate to severance payments, redundancy payments, costs for notice periods not worked and other costs linked to the closure of facilities such as site rehabilitation or asset write-offs. These costs and the costs directly linked to restructuring measures (removal costs, training costs for transferred employees, etc.) are recognised as restructuring costs in the income statement;
- capital gains or losses on disposals, particularly of businesses or equity investments. As an exception to the guidelines of the French General Chart of Accounts and in order to give a more accurate presentation of these transactions, reversals of provisions for impairment of equity investments and reversals of provisions for subsidiary risks are included in income from disposals;
- other income and expenses arising on events that are unusual as regards their frequency, nature or amount.

5.2 Breakdown of non-recurring income (expense)

	2018	2017
Restructuring costs	(8.0)	(11.3)
Capital gains or losses on disposals	1.6	(40.4)
Sale of treasury shares	1.6	(1.6)
Liquidation of Thales Belgium SA	–	(26.8) ^(a)
Disposal of Thales Microelectronics SAS	–	(5.3)
Disposal of Thales Cryogénie SAS	–	(0.7)
Other	–	(6.0)
Other	–	(0.8)
NON-RECURRING INCOME (EXPENSE)	(6.4)	(52.5)

(a) After a dividend payment of €25.9 million.

NOTE 6. INCOME TAX

6.1 General framework and accounting principles

Since 1 January 1992, Thales has opted for the Group tax consolidation regime. Thales is the head of a tax consolidation group that includes the majority of its French subsidiaries pursuant to the tax regime provided for by Article 223A of the French General Tax Code.

In accordance with the tax consolidation agreement entered into between Thales and its subsidiaries, each subsidiary in the tax group records the amount of tax it would have paid had they been taxed separately. Any tax savings arising on the use of tax losses of subsidiaries are recorded by the parent company and recognised in the income statement. However, the parent company may have to record a corresponding tax expense, if and when these subsidiaries return to profit and are able to deduct the losses as they would have done had they been taxed separately.

The corporate income tax rate for financial years 2018 and 2017 was 34.43%, including the social contribution on profits. Tax loss carryforwards are attributable up to the limit of 50% of taxable profit in excess of €1 million.

Thales also receives tax credits related to its research and development activities at the Palaiseau site which are recorded against income tax expense.

In addition, the amended 2012 Finance Act had introduced a 3% tax on dividends paid. A decision of the French Constitutional Council published on 6 October 2017 overturned this tax entirely. In December 2017, Thales was reimbursed the full amount paid between 2013 and 2017, representing €41.9 million, including default interest. Against this backdrop, the amended Finance Act introduced an exceptional tax for 2017, taking the corporate tax rate for Thales from 34.43% to 44.43%. The corresponding expense amounts to €46.2 million. These amounts were deducted from/reimbursed to subsidiaries according to the existing tax consolidation agreement.

6.2 Tax payable

The income tax benefit breaks down as follows:

	2018	2017
Income tax benefit received from tax group subsidiaries	146.7	176.3
Income tax due to the French State	(101.0)	(159.0)
Income tax benefit resulting from tax consolidation	45.7	17.3
Exceptional contribution due to Thales by beneficiary subsidiaries	—	25.1
Exceptional contribution due to the French State by Thales	—	(46.2)
Expense resulting from tax consolidation under the exceptional contribution	—	(21.1)
Reimbursement by Thales to beneficiary subsidiaries of the 3% tax on dividends	—	(30.4)
3% tax on dividends paid to the French State	—	(7.6)
Reimbursement by the State of the 3% tax on dividends	—	41.9
Benefit resulting from tax consolidation under the 3% tax on dividends	—	3.9
Research tax credit	8.5	8.6
Prior period adjustments and other taxes	7.2	1.1
INCOME TAX BENEFIT	61.4	9.8

In 2018 as in 2017, no non-deductible general expenses were reintegrated as a result of a tax audit. Expenditure excluded from deductible expenses in accordance with Articles 223 *quater* and 39.4

of the French General Tax Code amounted to €0.2 million in both 2018 and 2017, reflecting excess amortisation of vehicles.

6.3 Deferred tax

The company has available future tax savings due to temporary differences arising on the different tax and accounting treatments of income and expenses (€181.0 million at 31 December 2018 compared with €143.3 million at the end of 2017). These mainly reflect provisions for contingencies and losses, in particular provisions for post-employment benefits, which are not deductible for tax purposes.

There were no remaining tax loss carryforwards at 31 December 2018.

The corresponding deferred tax is not recognised.

NOTE 7. PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

7.1 Accounting principles

Intangible assets (mainly software) and property, plant and equipment are recognised at their acquisition cost in the balance sheet. They are amortised or depreciated on a straight-line or declining-balance basis over the period of their estimated useful lives (20 years for buildings and 3 to 10 years for other assets).

Fixed assets held under finance leases or hire purchase agreements are not recognised and are reported in off-balance sheet commitments.

7.2 Breakdown by type

	31/12/2018			31/12/2017		
	Gross value	Cumulative amort. and depr.	Net	Gross value	Cumulative amort. and depr.	Net
Intangible assets	20.8	(19.3)	1.5	18.9	(18.8)	0.1
Buildings	209.7	(135.6)	74.1	209.7	(122.7)	87.0
Industrial plant, equipment and machinery	40.5	(37.8)	2.7	39.5	(36.3)	3.2
Other	41.7	(15.2)	26.5	34.9	(12.9)	22.0
Property, plant and equipment	291.9	(188.6)	103.3	284.1	(171.9)	112.2
TOTAL	312.7	(207.9)	104.8	303.0	(190.7)	112.3

7.3 Change in net assets

	Intangible assets	Property, plant and equipment	Total
Net value at 01/01/2017	0.1	120.3	120.4
Acquisitions	0.1	13.1	13.2
Disposals	—	—	—
Depreciation and amortisation	(0.1)	(20.7)	(20.8)
Other	—	(0.5)	(0.5)
Net value at 31/12/2017	0.1	112.2	112.3
Acquisitions	1.9	9.8	11.7
Disposals	—	—	—
Depreciation and amortisation	(0.5)	(16.7)	(17.2)
Other	—	(2.0)	(2.0)
NET VALUE AT 31/12/2018	1.5	103.3	104.8

NOTE 8. EQUITY INVESTMENTS

8.1 Accounting principles

Equity investments are recorded at historical cost. Acquisition-related transaction costs are recognised in the income statement. When inventory value falls below book value, an impairment loss is booked for the difference.

The inventory value is determined by means of profitability forecasts, the underlying assets, recent transactions or the market price of any listed securities.

The profitability forecasts are determined on the basis of expected future cash flows set out in the three-year strategic plans and a terminal value.

The assumptions used are prudent with forecast growth in sales and terminal values limited to 2%.

The discount rate used is calculated on the basis of the Group's weighted average cost of capital (8% in 2018 versus 8.5% in 2017), adjusted if necessary for the specific risks attributable to each equity investment. This rate is mainly based on the market risk-free rate, risk factors inherent in the Group's businesses, the Group's marginal borrowing rate and specific risks for which cash flows have not been adjusted.

Impairment tests are carried out annually at year-end in line with the Group's internal schedule for the preparation of Group entity strategic plans.

8.2 Change in equity investments

A breakdown of equity investments is presented in Note 23. Changes are shown below:

	Notes	Gross value	Provisions	Net
VALUE AT 01/01/2017		10,090.1	(1,302.5)	8,787.6
Acquisitions/capital subscriptions and transactions		281.2	–	281.2
Increase in capital of Thales SESO SAS		21.8	–	21.8
Purchase of Thales Air Systems SAS shares		218.4	–	218.4
Increase in capital of Thales Electron Devices SAS		40.0	–	40.0
Increase in capital of Thales Cryogénie SAS		1.0	–	1.0
Disposals		(9.8)	–	(9.8)
Sale of Thales Microelectronics SAS		(4.6)	–	(4.6)
Sale of Thales Cryogénie SAS		(0.7)	–	(0.7)
Liquidation of Thales Belgium SA		(4.5)	–	(4.5)
Increase in provisions for impairment	Note 4	–	(27.3)	(27.3)
OTHER		(123.3)	90.6	(32.7)
VALUE AT 31/12/2017		10,238.2	(1,239.2)	8,999.0
Acquisitions/capital subscriptions and transactions		175.9	–	175.9
Increase in capital of Thales Digital Factory SAS		13.0	–	13.0
Increase in capital of Thales Global Services SAS		21.0	–	21.0
Increase in capital of Gerac SAS		6.2	–	6.2
Increase in capital of Thales Canada Inc		116.7	–	116.7
Increase in capital of Thales Belgium SA		19.0	–	19.0
Transactions on non-paid-up capital (Thales Digital Factory SAS)		35.6	–	35.6
Increase in provisions for impairment	Note 4	–	(55.3)	(55.3)
Reversal of provisions for impairment	Note 4	–	0.3	0.3
VALUE AT 31/12/2018		10,449.7	(1,294.2)	9,155.5

NOTE 9. OTHER FINANCIAL INVESTMENTS

9.1 Accounting principles

Other financial investments mainly include loan agreements signed by Thales with its direct or indirect subsidiaries and associates. These loans are presented separately from the current account agreements, which are used in the daily management of cash requirements or surpluses (see Note 10).

Other financial investments also include deposits paid as part of real estate commitments and other financial receivables.

An impairment loss is recognised depending on the risk of non-recovery.

9.2 Breakdown by type

	31/12/2018			31/12/2017		
	Gross value	Impairment	Net value	Gross value	Impairment	Net value
Loans to direct subsidiaries and associates (Note 23)	491.9	–	491.9	26.1	(25.5)	0.6
Loans to other Group subsidiaries	22.0	–	22.0	46.7	–	46.7
Loans to other Group associates	27.9	–	27.9	3.9	–	3.9
Other financial investments	10.7	(1.6)	9.1	29.5	(1.6)	27.9
TOTAL	552.5	(1.6)	550.9	106.2	(27.1)	79.1

9.3 Breakdown by maturity and by currency

Breakdown by maturity	31/12/2018	31/12/2017
Less than 1 year	46.0	59.9
From 1 to 5 years	502.6	14.0
More than 5 years	2.3	5.2
TOTAL	550.9	79.1

Breakdown by currency	31/12/2018	31/12/2017
Euro	28.8	50.5
Pound sterling	500.1	5.9
South African rand	11.8	12.4
Chinese yuan offshore	10.2	10.3
TOTAL	550.9	79.1

NOTE 10. GROUP COMPANY CURRENT ACCOUNT PAYABLES

10.1 General framework and accounting principles

The Group company current account amounts presented in the Thales parent company balance sheet represent the receivables and payables between the parent company and its subsidiaries as part of the Group's cash pooling organisation.

Under this centralised system, the cash surpluses of subsidiaries are generally transferred to the Thales parent company. In return, the Thales parent company meets the cash flow requirements of the subsidiaries. Except in special cases, this system applies to all subsidiaries in which Thales has majority control.

Group company current account receivables and payables are always recognised as due within one year.

10.2 Current account receivables

	31/12/2018	31/12/2017
Amounts due from direct subsidiaries and associates (Note 23)	952.5	911.1
Amounts due from Thales Alenia Space (France and Italy)	299.7	–
Amounts due from other subsidiaries	186.8	168.2
TOTAL	1,439.0	1,079.3

10.3 Current account payables

	31/12/2018	31/12/2017
Amounts deposited by direct subsidiaries and associates (Note 23)	5,169.5	4,880.2
Amounts deposited by Thales Alenia Space (France and Italy)	353.2	160.2
Amounts deposited by Thales Australia Ltd	83.2	74.1
Amounts deposited by other Group subsidiaries	460.6	414.4
TOTAL	6,066.5	5,528.9

NOTE 11. CASH AND OTHER INVESTMENTS

11.1 Accounting principles

Cash and cash equivalents include cash at bank and in hand as well as short-term, liquid investments that are easily converted into a known amount of cash and exposed to negligible risk of a change in value.

11.3 Other investments

Other investments correspond to term deposits with banks with maturities of 3 to 12 months.

11.2 Cash and cash equivalents

Cash and cash equivalents available for immediate use amounted to €4,809.4 million at 31 December 2018 compared with €3,450.5 million at the end of 2017. These amounts include €3,249.4 million (€2,199.4 million at the end of 2017) in sight and term bank deposits or money market funds.

NOTE 12. BORROWINGS

12.1 Accounting principles

Bonds are recognised at their redemption value. Any issue or redemption premiums are recognised under the corresponding balance sheet line item and taken to financial income (expense) on a straight-line basis.

Bond issue expenses are recognised on a straight-line basis over the term of the bond.

12.2 Breakdown of borrowings

	Nominal rate	31/12/2018	31/12/2017
Bonds maturing in January 2025	Fixed rate 0.75%	500.0	–
Bonds maturing in April 2024	Fixed rate 0.875%	500.0	–
Bonds maturing in June 2023	Fixed rate 0.75%	600.0	600.0
Bonds maturing in March 2021	Fixed rate 2.25%	300.0	300.0
Bonds maturing in April 2020	3-month Euribor + 0.2%	500.0	–
Bonds maturing in March 2018	Fixed rate 1.63%	–	500.0
Other borrowings		682.0	156.4
Accrued interest		14.9	14.3
GROSS BORROWINGS		3,096.9	1,570.7

In January 2018, Thales issued a €500 million fixed-rate bond maturing in seven years. This issue was primarily aimed at refinancing the bonds maturing in 2018.

In April 2018, Thales issued a two-tranche bond in a total amount of €1,000 million to complete the financing of the planned acquisition of Gemalto. As a result of the amount raised, the Group cancelled the dedicated bank bridging loan signed in December 2017 to finance the acquisition. The issue includes a two-year €500 million tranche and a six-year €500 million tranche.

In addition to this financing, Thales has a committed bank credit facility⁽¹⁾ amounting to €1,500 million, undrawn as at 31 December 2018 and maturing in 2021, as well as a commercial paper program (NEU CP).

The Group's financing agreements do not contain any covenants related to changes in Thales's credit rating. A lower rating would result in an increase (capped) in the margins applicable to the aforementioned committed credit facility. A higher rating would lead to a decrease in the applicable margin (with a minimum threshold).

12.3 Breakdown of borrowings by maturity and by currency

Breakdown by maturity	31/12/2018	31/12/2017
Less than 1 year	93.2	670.7
From 1 to 5 years	2,003.7	300.0
More than 5 years	1,000.0	600.0
TOTAL	3,096.9	1,570.7

Breakdown by currency	31/12/2018	31/12/2017
Euro	2,459.3	1,425.4
Singapore dollar	33.9	32.6
Pound sterling	603.7	112.7
TOTAL	3,096.9	1,570.7

NOTE 13. SHAREHOLDERS' EQUITY

13.1 Share capital

Thales's share capital of €639,312,243 at 31 December 2018 is composed of 213,104,081 shares, compared with 212,658,725 shares at 31 December 2017, with a par value of €3 each. This represents an increase of 445,356 shares resulting from the exercise of share subscription options. The breakdown of share capital is set out below:

	31/12/2018			31/12/2017		
	Shares	% of capital	% of voting rights	Shares	% of capital	% of voting rights
TSA	54,786,654	25.71%	35.68%	54,786,654	25.76%	35.75%
French State (including 1 golden share)	2,060	—	—	2,060	—	—
Public Sector ^(a)	54,788,714	25.71%	35.68%	54,788,714	25.76%	35.75%
Dassault Aviation ^(b)	52,531,431	24.65%	28.39%	52,531,431	24.70%	28.44%
Thales ^(c)	648,295	0.30%	—	568,739	0.27%	—
Employees	5,575,167	2.62%	3.37%	6,181,444	2.91%	3.50%
Other shareholders	99,560,474	46.72%	32.56%	98,588,397	46.36%	32.31%
TOTAL^(d)	213,104,081	100.00%	100.00%	212,658,725	100.00%	100.00%

(a) Under the terms of the shareholders' agreement with Dassault Aviation (the "Industrial Partner"), the "Public Sector" (the French State) is represented by TSA, excluding the State directly. Since 29 January 2018, public institution EPIC Bpifrance has held all TSA capital apart from one preferred share that is held by the French State. EPIC Bpifrance and the French State have also agreed to consult with TSA under the terms and conditions described in AMF Notice No. 218c0137 of 16 January 2018. All Thales shares held directly and indirectly by the French State have been in directly registered form for more than two years and thus have a double voting right on 31 December 2018.

(b) As at 31 December 2018, Dassault Aviation held 42,154,349 shares in directly registered form, of which 34,654,349 shares have been held for more than two years, thus granting it double voting rights, and held 10,377,082 shares in bearer form.

(c) Treasury shares represented 262,274 bearer shares held under a liquidity contract and 386,021 directly registered shares.

(d) In 2018, a total of 445,356 new shares bearing rights from 1 January 2018 were created as a result of the exercise of share subscription options.

At 31 December 2018, there are no securities giving access to the company's capital, with the exception of the share subscription options described in the Note 15 below.

(1) The single accelerated repayment clause of this bank credit facility would only apply in the event that the French government no longer held its golden share and, simultaneously, the ratio of consolidated net debt to EBITDA (earnings before interest, taxes, depreciation and amortisation) exceeded 3x.

13.2 Reserves and retained earnings

	31/12/2017	Allocation of 2017 profit	Balance of 2017 dividend	Interim dividend 2018	31/12/2018
Legal reserve	63.7	0.1	—	—	63.8
Blocked reserve	8.3	—	—	—	8.3
Ordinary reserve	128.9	—	—	—	128.9
Other reserves	0.3	—	—	—	0.3
Retained earnings	1,605.6	383.7	(275.8)	(106.3)	1,607.2
TOTAL	1,806.8	383.8	(275.8)	(106.3)	1,808.5

Thales allocated €371.0 million of the profit for the 2017 financial year to dividends (€1.75 per share), paying an interim dividend of €95.2 million in December 2017 and the balance of €275.8 million in June 2018. Thales paid an interim dividend of €106.3 million in December 2018 in respect of the 2018 financial year.

NOTE 14. TREASURY SHARES

14.1 Accounting principles

Thales carries out transactions in its own shares in accordance with the authorisations granted to the Board of Directors by the Annual General Meeting.

At year-end, treasury shares are recognised and measured on the basis of their assigned function:

- treasury shares that have not been assigned are recorded under other financial investments at their acquisition cost. At the reporting date, an impairment loss is recognised if their carrying value exceeds the average stock market price for December;
- treasury shares assigned to a free share plan are recorded under marketable securities, either at their acquisition cost if the shares were assigned from the beginning of the plan, or at their net carrying value at the reclassification date if they were assigned after their acquisition.

These treasury shares are not measured at market value because they are set aside to be granted to employees. As a result:

- shares allocated to Thales (parent company) employees are amortised on a straight-line basis over the term of the plan (48 months) through an increase in provisions for contingencies and losses recorded in liabilities. Plans not covered by allocated shares are also covered by a provision recorded in liabilities,
- shares allocated to other Group employees are maintained at cost price, as they will be re-billed to the relevant subsidiaries for the same amount.

14.2 Change in treasury shares

Change in the number of treasury shares

	2018			2017		
	Freely transferable treasury shares	Treasury shares assigned to plans	Total treasury shares	Freely transferable treasury shares	Treasury shares assigned to plans	Total treasury shares
At 1 January	568,739	—	568,739	126,044	623,515	749,559
Purchases under the liquidity contract	838,402	—	838,402	819,512	—	819,512
Disposals for liquidity purposes	(702,128)	—	(702,128)	(743,512)	—	(743,512)
Transfer to employees under the employee share purchase plan	(37,118)	—	(37,118)	(462,217)	—	(462,217)
Stock market purchases	220,000	—	220,000	852,000	—	852,000
Delivery of free shares	(238,750)	—	(238,750)	—	(606,603)	(606,603)
Exercise of stock options	(850)	—	(850)	(40,000)	—	(40,000)
Reclassified shares	—	—	—	16,912	(16,912)	—
Net change	79,556	—	79,556	442,695	(623,515)	(180,820)
At 31 December	648,295	—	648,295	568,739	—	568,739

Change in the value of treasury shares

Freely transferable treasury shares	2018	2017
At 1 January	52.4	11.6
Purchases under the liquidity contract	87.9	75.4
Disposals for liquidity purposes	(70.7)	(69.0)
Transfer to employees under the employee share purchase plan	(3.5)	(43.6)
Stock market purchases	24.0	80.4
Delivery of free shares	(22.7)	–
Exercise of stock options	(0.1)	(3.7)
Reclassified shares	–	1.3
At 31 December	67.3	52.4
Impairment	–	(2.1)
Net at 31 December	67.3	50.3
Average share price for December (in euros)	104.15	88.43
Cost of outstanding plans (Thales SA share)		
Provisions for contingencies and losses	(17.7)	(18.4)

NOTE 15. FREE SHARE PLANS AND STOCK OPTIONS GRANTED TO EMPLOYEES

At 31 December 2018, the following were outstanding:

- 309,738 share subscription options at a weighted average exercise price of €30.30, of which 122,104 are subject to performance conditions;
- 623,625 free shares, of which 537,605 are subject to performance conditions;
- 573,410 units, of which 222,950 are subject to performance conditions;
- 204,150 phantom shares granting the right to a cash payment after a four-year vesting period, of which 165,720 are subject to performance conditions.

15.1 Outstanding share purchase option plans

Date of Board decision	Exercise period	Exercise price	Number of options outstanding at 31/12/2017	Options exercised in 2018	Number of options outstanding at 31/12/2018
25/11/2008	from 25/11/2012 to 24/11/2018	€38.50	850	(850)	–

15.2 Outstanding share subscription option plans

Date of Board decision	Exercise period	Exercise price	Number of options outstanding at 31/12/2017	Options exercised in 2018	Options cancelled in 2018	Number of options outstanding at 31/12/2018
15/09/2011	from 15/09/2015 to 14/09/2021	€26.34	85,377	(11,323)	–	74,054 ^(a)
23/09/2010	from 23/09/2014 to 22/09/2020	€26.34	70,050	(22,000)	–	48,050 ^(a)
25/06/2009	from 25/06/2013 to 24/06/2019	€32.88	272,752	(82,578)	(2,540)	187,634
01/07/2008	from 01/07/2012 to 30/06/2018	€38.50	355,025	(329,455)	(25,570)	–

(a) Subject to the achievement of internal performance conditions over the three financial years following the allotment date.

Options granted and exercised in 2018

	Number of options granted/shares subscribed or purchased	Exercise price	Date of plan
1. Directors			
Options granted in 2018	Nil		
2. The 10 biggest option awards granted to employees			
Options granted in 2018	Nil		
3. The 10 biggest exercises of options by employees^(a)			
Options exercised in 2018	4,000	€38.50	01/07/2008
	3,500	€38.50	01/07/2008
	3,500	€38.50	01/07/2008
	3,500	€38.50	01/07/2008
	3,250	€38.50	01/07/2008
	3,100	€32.88	25/06/2009
	3,000	€26.34	23/09/2010
	3,000	€32.88	25/06/2009
	3,000	€38.50	01/07/2008
	2,814	€38.50	01/07/2008

(a) All Group companies combined.

15.3 Allotment of free shares

Date of Board decision	Vesting period	Share price at grant date	Balance of free shares at 31/12/2017	Shares allotted in 2018	Shares cancelled in 2018	Shares delivered in 2018	Number of free shares at 31/12/2018
27/09/2018	from 27/09/2018 to 27/09/2022	€121.75	—	181,515	(180)	—	181,335 ^(a)
28/09/2017	from 28/09/2017 to 28/09/2021	€94.66	212,540	—	(1,640)	—	210,900 ^(a)
27/10/2016	from 27/10/2016 to 27/10/2020	€83.10	87,500 147,760	— —	(1,250) (2,390)	(290) —	86,020 145,370 ^(a)

(a) Subject to the achievement of internal performance conditions over the three financial years following the allotment date.

15.4 Allotment of share units indexed to the value of Thales shares

Date of allotment decision	Vesting period	Share price at grant date	Balance of units at 31/12/2017	Units cancelled in 2018	Units delivered in 2018 ^(a)	Balance of units at 31/12/2018
17/09/2015	from 17/09/2015 to 17/09/2019	€61.75	359,030 225,450 ^(b)	(8,570) (2,500)	— —	350,460 222,950 ^(c)
16/09/2014	from 16/09/2014 to 16/09/2018	€42.42	396,760 262,500 ^(b)	(9,410) (1,800)	(387,350) (260,700)	— —

(a) Plan partly delivered in shares (238,460 shares) and the balance in cash.

(b) Post-closing adjustments.

(c) Subject to the achievement of internal performance conditions over the three financial years following the allotment date.

15.5 Allotment of phantom shares indexed to the value of Thales shares

Date of allotment decision	Vesting period	Balance of phantom shares at 31/12/2017	Phantom shares allotted in 2018	Phantom shares cancelled in 2018	Balance of phantom shares at 31/12/2018
27/09/2018	from 27/09/2018 to 27/09/2022	—	62,940	(80)	62,860 ^(a)
28/09/2017	from 28/09/2017 to 29/09/2021	67,000		(530)	66,470 ^(a)
27/10/2016	from 27/10/2016 to 27/10/2020	38,790 36,390	— —	(360) —	38,430 36,390 ^(a)

(a) Subject to the achievement of internal performance conditions over the three financial years following the allotment date.

NOTE 16. RECEIVABLES AND PAYABLES

16.1 Accounting principles

Payables and receivables denominated in foreign currencies are revalued at the closing price.

Thales (parent company) hedges foreign exchange risks related to contracts or normal commercial transactions on behalf of its subsidiaries.

Temporary cash offsets between the amounts received/paid to subsidiaries and Thales's cash receipts/payments to banks with regard to managing foreign exchange derivatives are recorded in the balance sheet under "Translation difference and exchange rate adjustments", using the symmetry principle applicable to hedging transactions.

16.2 Breakdown of receivables and payables

			31/12/2018	31/12/2017
	Gross	Provisions	Net	Net
Advances to suppliers	0.1	—	0.1	0.4
Trade receivables	201.4	—	201.4	197.1
Other receivables	293.6	(2.9)	290.7	327.6
Income tax receivables from the French State (mainly research tax credits)	159.7	—	159.7	229.7
Translation difference and exchange rate adjustments	12.3	—	12.3	12.5
Tax and social security receivables	32.6	—	32.6	30.9
Other	89.0	(2.9)	86.1	54.5
TOTAL	495.1	(2.9)	492.2	525.1
Advances received on contracts in progress	19.0	—	19.0	17.8
Trade payables	164.3	—	164.3	86.8
Other payables	368.5	—	368.5	351.2
Tax liabilities towards consolidated subsidiaries	197.8	—	197.8	196.8
Translation difference and exchange rate adjustments	1.2	—	1.2	14.5
Tax payables, excluding income tax and social security	84.3	—	84.3	98.1
Other	85.2	—	85.2	41.8
TOTAL	551.8	—	551.8	455.8

16.3 Breakdown of receivables and payables by maturity at 31 December 2018

	Net	Maturity		
		< 1 year	1 to 5 years	> 5 years
Advances to suppliers	0.1	0.1	–	–
Trade receivables	201.4	201.4	–	–
Other receivables	290.7	202.1	74.4	14.2
TOTAL RECEIVABLES	492.2	403.6	74.4	14.2
Advances received on contracts in progress	19.0	19.0	–	–
Trade payables	164.3	164.3	–	–
Other payables	368.5	205.4	149.0	14.1
TOTAL LIABILITIES	551.8	388.7	149.0	14.1

NOTE 17. PROVISIONS FOR CONTINGENCIES AND LOSSES

17.1 Accounting principles

The Group records a provision when it recognises a legal or constructive obligation resulting from a past event for which an outflow of resources will be required and a reliable estimate can be made of the amount. Provisions are generally recorded for the following:

Provisions for post-employment and other employee benefits

The financing of post-employment benefits mainly involves statutory retirement schemes (social security, supplementary schemes such as ARRCO and AGIRC, etc.) for which the recognised expense is equal to the contributions paid. These are recorded in the year in which they are incurred.

The company grants its employees termination payments and other long-term benefits (long-service awards and an additional week of annual leave during the employee's 35th year of service within the Group). Some senior executives are also eligible for a supplementary pension plan.

In accordance with ANC Recommendation 2013-02, a provision is recognised for obligations that qualify as defined benefit plans. It is calculated on the basis of an actuarial valuation, determined using the projected unit credit method and taking into account future salary levels. This method consists in assessing, for each employee, the present value of the benefits that he or she can expect at the due date, by applying assumptions concerning discount rates, inflation, mortality and staff turnover.

These plans are recognised in the company's financial statements as follows:

- the service cost, which corresponds to the increase in the obligation during the reporting period, is recognised in income (loss) from operations;
- the costs of unwinding the net obligation as well as actuarial gains and losses due to changes in assumptions and experience adjustments (difference between projected and actual) are recognised in financial income (expense);
- the impact of plan amendments following renegotiations of employee benefits is recognised in non-recurring income (expense).

Provisions for subsidiary risks

Equity investments held by Thales are measured at the end of each reporting period and an impairment loss is recorded if necessary. In the event that the investment is fully written down and Thales's share in the shareholders' equity of the subsidiary or associate becomes negative, a provision for subsidiary risks may be recognised when considered necessary.

Provisions for restructuring

Provisions for restructuring costs are recorded when a restructuring programme has been agreed with a third party, approved by company management and announced before the reporting date, resulting in an obligation to the third parties in question, and for which the company does not expect any consideration for the costs.

17.2 Breakdown of provisions

	31/12/2017	Increase	Reversal	31/12/2018
Post-employment and other employee benefits (see Note 17.3)	110.3	11.1	(13.3)	108.1
Subsidiary risks	15.8	23.5	(15.6)	23.7
Restructuring	0.3	0.6	(0.3)	0.6
Free shares	18.4	11.6	(12.3)	17.7
Other	54.2	2.4	(1.8)	54.8
TOTAL	199.0	49.2	(43.3)	204.9

17.3 Post-employment and other employee benefits

The provisions in the balance sheet can be broken down as follows:

	2018		
	Post-employment benefits	Other employee benefits	Total
Provisions at 31 December 2017	(106.6)	(3.7)	(110.3)
Net reversal of provisions, of which:	2.1	0.1	2.2
Current service cost	(5.8)	(0.2)	(6.0)
Financial expense:	1.4	0.2	1.6
• Net interest cost	(1.3)	–	(1.3)
• Actuarial gains (losses)	2.7	0.2	2.9
Benefits and contributions paid	5.8	0.2	6.0
Other	0.7	(0.1)	0.6
Provisions at 31 December 2018	(104.5)	(3.6)	(108.1)
Of which:			
• Commitments	(152.9)	(3.6)	(156.5)
• Investments	48.4	–	48.4

The actuarial assumptions used to estimate the commitments are the following:

	31/12/2018	31/12/2017
Discount rate	1.58%	1.20%
Inflation rate	1.45%	1.35%
Average salary increase rate	2.38%	2.20%

NOTE 18. LEGAL RISKS

As at the date of publication of this document, there are no government, judicial or arbitration claims, of which the company is aware, which are pending or threatened, which could have, or which had, in the course

of the last 12 months, a material impact on the financial position or the profitability of the company.

NOTE 19. OFF-BALANCE SHEET COMMITMENTS

19.1 Deposits and guarantees

Commitments given:	31/12/2018	31/12/2017
Guarantees given by Thales under commercial contracts signed by operating entities	9,049.6	8,352.8 ^(a)
Guarantees given to banks for facilities granted to subsidiaries	2,914.9	2,730.8 ^(a)
Counter-guarantee given to trustees to hedge Thales pension obligations in the United Kingdom	917.9	930.8
Other guarantees given to Group subsidiaries	738.1	704.7
Other guarantees given	535.0	746.0
Total^(b)	14,155.5	13,465.1
Of which, related to direct subsidiaries (see Note 23)	3,188.1	3,655.3
Of which, related to other Group subsidiaries	10,586.1	9,487.9
Of which, related to direct and indirect associates	381.3	321.9

Commitments received	31/12/2018	31/12/2017
Debt write-offs granted to related companies with clawback provisions	6.7	6.9

(a) An amount of €416.9 million in guarantees given by Thales under commercial contracts signed by the operating entities was reclassified as guarantees given to banks for facilities granted to subsidiaries.

(b) The increase in guarantees given from 2017 to 2018 is explained in part by changes in exchange rates (€129.5 million).

19.2 Property leasing commitments

	31/12/2018	31/12/2017
Operating leases	897.0 ^(a)	544.0
Less than 1 year	102.5	113.9
From 1 to 5 years	391.1	293.6
More than 5 years	403.4	136.5

(a) The increase from 2017 to 2018 was due to the renegotiation of a number of leases.

NOTE 20. MARKET RISKS

20.1 Accounting principles

The Thales (parent company) Treasury and Financing department is active in the financial markets in order to reduce the interest rate and foreign exchange risks of the Group.

Interest rate derivatives

Thales uses interest rate derivatives to manage and reduce its exposure to interest rate fluctuations. When the derivatives are designated as hedging instruments, the gains and losses on the hedge are recognised in the same period as the hedged item.

Currency derivatives

Thales hedges foreign exchange risks arising on commercial offers entered into by its subsidiaries, which are denominated in currencies other than the main operating currency.

When the hedged item has a sufficient probability of occurrence, the foreign exchange derivatives subscribed by Thales with banking counterparties qualify for hedge accounting. Gains and losses on bank derivatives are then recognised in income at the same rate as the gains and losses realised on the guarantees offered to subsidiaries, in accordance with the principle of symmetry applicable to hedging

transactions. Foreign exchange premiums are amortised in the income statement on a straight-line basis over the term of the hedge.

When hedged items do not have a sufficient probability of occurrence, the foreign exchange derivatives are deemed isolated open positions. In this case, the market value of the derivative is recognised in the balance sheet as an offsetting entry in a suspense account, also in the balance sheet. A provision is recorded in the event of negative valuation. This valuation takes into account Thales's guarantee commitments to subsidiaries under these offers.

Thales hedges foreign exchange risks related to firm contracts and normal commercial transactions on behalf of its subsidiaries. As such, it guarantees its operating subsidiaries a specific exchange rate for each transaction and backs up its position by arranging currency derivatives with banking counterparts. Gains and losses on bank derivatives are then recognised in income at the same rate as the gains and losses realised on the guarantees offered to subsidiaries, in accordance with the principle of symmetry applicable to hedging transactions.

Thales hedges the foreign exchange risks related to its cash pooling system. The gains and losses on currency derivatives are offset by the gains and losses resulting from the revaluation of the hedged Group company current accounts and loans. However, gains or losses related to the derivatives' swap points are spread over the term of the hedge.

20.2 Interest rate risk management

At 31 December 2018 and 2017, Thales held the derivative instruments described below, all of which qualify as hedges.

Interest rate derivatives	31/12/2018		31/12/2017	
	Nominal	Market value	Nominal	Market value
Fixed-for-floating interest rate swaps:				
• swaps backing bonds maturing in 2023	400.0	2.5	400.0	(2.6)
• swaps backing bonds maturing in 2021	300.0	14.2	300.0	17.0
• swaps backing bonds maturing in 2018	–	–	300.0	3.1
Floating-for-fixed interest rate swaps:				
• resetting swaps/bonds maturing in 2023	400.0	(6.7)	–	–
• resetting swaps/bonds maturing in 2021	300.0	(1.9)	–	–
• pre-hedging swaps for the bonds maturing in 2024 ^(a)	–	(4.5)	–	–
• cross-currency swap backing a loan	14.2	1.4	14.3	1.6
• swaps backing a loan	1.3	–	3.9	(0.3)

(a) €500 million swaps set up prior to the issue, returned on the issue date (April 2018).

20.3 Foreign exchange risk management

At 31 December 2018 and 2017, the derivatives subscribed by Thales with bank counterparties were as follows:

	31/12/2018					31/12/2017	
	USD	GBP	Other	Total	Market value	Total	Market value
Hedges of commercial offers and transactions:							
Forward currency sales	2,985.0	760.6	2,328.4	6,074.0	(83.1)	6,911.2	144.3
Forward currency purchases	947.4	813.8	2,024.4	3,785.6		4,370.0	
Currency sales (call and put options)	–	–	36.8	36.8	0.2	113.2	–
Currency purchases (call and put options)	82.5	–	8.2	90.7		112.8	
Hedges related to cash pooling:							
Currency sales: foreign exchange swaps	712.7	–	356.2	1,068.9	(100.7)	972.3	(70.3)
Currency purchases: foreign exchange swaps	26.2	685.8	274.6	986.6		642.8	

In addition, Thales has granted its operating subsidiaries "mirror" foreign exchange guarantees in relation to firm contracts or normal commercial operations. Thales has also granted its operating subsidiaries foreign exchange guarantees on commercial offers, subject to the subsidiary winning the contract.

NOTE 21. RELATED PARTIES

21.1 Definition

The Group has identified the following related parties: shareholders of Thales (the parent company), especially the French State and Dassault Aviation, companies controlled by these same shareholders, companies under joint control, companies under significant influence, directors and senior executives.

21.2 Agreements with Thales's shareholders

Section 6.2.3.3 of the 2018 Registration Document describes the main provisions of the shareholders' agreement governing relations between the French State (the "Public Sector") and Dassault Aviation (the "Industrial

Partner") within Thales, in relation to the convention on the protection of strategic national interests as well as the specific agreement binding the French State and Thales.

21.3 Agreements with Naval Group

Since December 2011, Thales has held 35% of the share capital of Naval Group, a subsidiary jointly controlled with the French State.

Thales and Naval Group have also signed an industrial and trade cooperation agreement with the objective of optimising the organisation of the naval business activities of both groups in terms of market access, research and development and purchasing.

21.4. Executive compensation^(a)

The compensation, benefits and social security contributions awarded to Directors and Executive Committee members break down as follows:

	2018	2017
Short-term benefits:		
• Fixed compensation	4.8	4.7
• Variable compensation	4.2	4.2
• Post-employment benefits	–	0.5
• Social security contributions	3.0	3.1
• Attendance fees	0.6	0.6
Other benefits^(b):		
• Post-employment benefits	2.7	2.4
• Share-based compensation ^(c) (see Note 15)	4.9	3.4

(a) The components of compensation presented correspond to costs recognised in the Thales parent company financial statements.

(b) Including social contributions.

(c) Measured in accordance with IFRS 2 – share-based payments.

As at 31 December 2018, executives' share of post-employment commitments (see Note 17.3) amounted to €20.3 million

NOTE 22. EVENTS AFTER THE REPORTING PERIOD

On 17 December 2017, Thales and Gemalto jointly announced the signature of an agreement on an all-cash offer for a price of €51 per ordinary share cum dividend (i.e. a total equity value of approximately €4.8 billion).

The offer document containing the terms and conditions and consequences of the offer was approved by the Dutch Financial Markets Authority ("AFM") and published on 27 March 2018. The period for accepting the shares, initially open until 6 June 2018, was extended and will end two weeks after the satisfaction or waiver of the condition precedent relating to the regulatory approvals required in connection with the transaction, with a deadline of 31 March 2019. At 31 December 2018, Thales and Gemalto had obtained 11 of the 14 required regulatory approvals.

In connection with this transaction, the Group announced on 22 February 2019 that, pursuant to the requirements of certain competition authorities, it had signed a final agreement to sell its global GP HSM (General Purpose Hardware Security Modules) business to Entrust Datacard. The GP HSM business generated revenues of €106 million in 2018.

The completion of this offer and payment of the offer price to shareholders who had tendered their shares is scheduled for end-March 2019.

In January 2019, Thales finalised the €100 million acquisition of Ecom, a company specialising in communication and device security, and Suneris, which delivers solutions for the supervision and control of telecommunications network traffic. The two companies employ almost 200 people and reported revenues of around €40 million in 2017.

NOTE 23. SUBSIDIARIES AND ASSOCIATES

(in millions)

			Information related to the entity (local currency)			
			Prior year revenues excluding VAT	Prior year earnings	Share capital	Shareholders' equity other than share capital

A. Detailed information on subsidiaries and associates whose gross value exceeds 1% of the Company's share capital

1. Subsidiaries	THALES HOLDING UK PLC	GBP	–	1.1	726.8	402.6
	THALES AVS FRANCE SAS	EUR	1,715.6	148.0	213.1	194.7
	THALES DMS FRANCE SAS	EUR	1,766.7	202.7	122.2	237.7
	THALES IAS FRANCE SAS	EUR	1,953.1	162.1	199.8	443.6
	THALES ALENIA SPACE SAS	EUR	–	151.0	918.0	306.8
	THALES SIX GTS FRANCE SAS	EUR	1,856.0	136.5	164.0	55.4
	THALES MANAGEMENT & SERVICES DEUTSCHLAND GMBH	EUR	–	–4.9	27.1	272.3
	THALES USA INC	USD	25.4	–30.8	118.1	378.5
	THALES INTERNATIONAL SAS	EUR	–	35.6	313.0	38.7
	AVIMO GROUP LTD	SGD	–	0.7	22.1	35.7
	THALES NETHERLANDS BV	EUR	431.1	39.5	29.5	177.4
	THALES CANADA INC	CAD	843.0	–25.2	184.8	–80.9
	THALES UNDERWATER SYST NV PAYS BAS	EUR	–	–	4.5	4.1
	THALES SERVICES SAS	EUR	462.8	27.9	1.5	202.5
	SIFELEC SAS	EUR	–	–	38.3	0.6
	THALES AVIONICS ELECTRICAL SYSTEMS SAS	EUR	157.6	3.9	6.9	38.2
	THALES HOLDING NORWAY AS	NOK	–	–	419.8	–186.8
	THALES CORPORATE VENTURES SAS	EUR	–	–1.7	15.0	13.5
	THALES BELGIUM SA (Formerly FZ)	EUR	46.0	–0.6	31.9	–20.6
	THALES DIGITAL FACTORY SAS	EUR	6.4	–28.7	48.6	–7.8
	THALES EUROPE SAS	EUR	–	–0.1	43.2	–40.5
	THALES SESO SAS	EUR	19.9	1.3	0.4	11.1
	THALES GLOBAL SERVICES SAS	EUR	543.6	–0.9	0.5	21.3
	THALES SUISSE SA	CHF	41.1	17.2	40.0	–0.1
	CMT MEDICAL TECHNOLOGIES LTD	USD	20.2	0.7	1.0	28.3
	SNC THALES MERIGNAC	EUR	14.9	3.0	20.0	2.5
	THALES COMMUNICATIONS LTD	BRL	–	–	19.8	–19.0
	SAS CHATELLERAULT BRELANDIERE	EUR	2.4	–0.4	2.0	1.3
Total subsidiaries						
2. Associates	UNITED MONOLITHIC SEMICONDUCTORS HOLDING	EUR	–	2.0	33.9	14.2
	ELETTRONICA SpA	EUR	–	18.5	–	79.3
	SOFRADIR	EUR	126.7	16.1	6.0	92.4
	TELESPAZIO SpA	EUR	492.5	21.7	50.0	188.7
	NAVAL GROUP	EUR	3,608.3	179.1	563.0	–141.9
	Total associates					

TOTAL (A)

B. Detailed disclosures concerning other subsidiaries and associates

1. Subsidiaries not listed in section A

French subsidiaries

Foreign subsidiaries

TOTAL

2. Associates not listed in section A

French companies

Foreign companies

TOTAL (A)

TOTAL (B)

TOTAL (A + B)

Information concerning related companies

Thales's direct subsidiaries (A)

Thales's direct subsidiaries (B)

Other Group subsidiaries

Contribution of subsidiaries and associates to Thales' financial statements (EUR)							
Carrying amount of investments (gross)	Carrying amount (net)	% share capital held	Loans and advances made by Thales not yet paid	Receivables	Liabilities	Deposits and guarantees given by Thales	Dividends received by Thales during the year
2,571.7	1,870.1	100%	491.9	1.4	131.7	—	—
1,016.0	1,016.0	93%	—	28.4	537.4	129.0	130.9
802.6	802.6	100%	—	—	2,340.0	587.8	110.7
754.9	754.9	100%	—	10.6	1,487.2	121.6	130.8
683.1	683.1	67%	—	29.2	—	—	59.9
590.7	590.7	100%	—	11.8	384.3	647.1	88.2
544.9	544.9	100%	—	135.2	—	—	—
476.6	476.6	100%	—	61.2	4.9	764.3	—
398.5	398.5	100%	—	90.6	—	6.0	45.5
250.7	66.4	100%	—	—	—	—	—
235.2	235.2	99%	—	0.4	210.5	351.5	—
168.6	168.6	100%	—	56.1	10.0	78.1	—
129.2	8.5	100%	—	—	—	—	—
126.4	126.4	100%	—	0.1	4.8	—	6.3
111.8	38.7	100%	—	—	30.1	—	—
94.6	61.6	100%	—	36.0	1.5	—	—
77.2	77.2	100%	—	—	—	—	—
73.3	16.8	100%	—	—	11.3	—	1.4
53.2	53.2	100%	—	22.5	1.1	24.0	—
48.7	13.0	100%	—	39.2	—	—	—
43.2	43.2	100%	—	161.5	—	—	—
36.4	6.8	100%	—	0.1	2.3	—	—
33.3	14.1	100%	—	76.1	—	—	—
26.4	26.4	100%	—	0.1	0.8	—	12.1
21.8	21.8	100%	—	1.2	0.9	—	—
20.0	20.0	100%	—	96.2	—	—	—
11.0	—	100%	—	—	—	—	—
10.0	1.6	100%	—	0.6	—	—	—
9,410.0	8,136.9		491.9	858.3	5,158.6	2,709.4	585.8
24.3	22.8	50%	—	—	—	—	1.0
26.7	26.7	33%	—	—	—	—	4.2
26.4	26.4	50%	—	—	—	—	7.5
81.6	81.6	33%	—	—	—	—	8.6
833.7	833.7	35%	—	—	—	—	10.0
992.7	991.2			—	—	—	31.3
10,402.7	9,128.1		491.9	858.3	5,158.6	2,709.4	617.1
29.2	17.6		—	19.4	10.3	—	3.6
0.7	0.1			—	—	—	—
29.9	17.8			19.4	10.3	—	3.6
9.7	9.5			—	—	—	—
7.5	0.2			74.8	0.6	478.7	0.1
17.1	9.7			74.8	0.6	478.7	0.1
47.0	27.5			94.2	10.9	478.7	3.7
10,449.7	9,155.5		491.9	952.5	5,169.5	3,188.1	620.9
			491.9	858.3	5,158.6	2,709.4	
			—	19.4	10.3	—	
			—	74.8	0.6	478.7	

Investments made and thresholds crossed in French companies in financial year 2018

Percentage owned	At 31/12/2017					At 31/12/2018				
	> 5%	> 20%	> 33%	> 50%	> 66%	> 5%	> 20%	> 33%	> 50%	> 66%
1. Increases										
192 Centelec SAS	—	—	—	—	—	—	—	—	—	100%
Thales LAS France SAS	—	—	—	—	100%	—	—	—	—	—
2. Decreases										
Thales Underwater Systems SAS	—	—	—	—	100%	—	—	—	—	—
TDA Armements SAS	—	—	—	—	100%	—	—	—	—	—
Thales Angénieux SAS	—	—	—	—	100%	—	—	—	—	—
Thales Belgium SA	—	—	—	—	100%	—	—	—	—	—
Thales Cryogénie SAS	—	—	—	—	100%	—	—	—	—	—
Thales Electron Devices SAS	—	—	—	—	100%	—	—	—	—	—
Thales Optronique SAS	—	—	—	—	77%	—	—	—	—	—
Thales Microelectronics SAS	—	—	—	—	100%	—	—	—	—	—
Thales Systems Ireland Ltd	—	23%	—	—	—	—	—	—	—	—
Revenue Collection Systems France SAS	—	—	—	—	100%	—	—	—	—	—
191 Centelec SAS	—	—	—	—	100%	—	—	—	—	—

NOTE 24. INFORMATION ON EXISTING BRANCHES (ARTICLE L. 232-1, II OF THE FRENCH COMMERCIAL CODE)

At 31 December 2018, Thales had a secondary facility registered in France with the trade and companies register and indicated on its Kbis (company registration certificate).

7.2.2.6 Five-year financial summary of the Company

	2014	2015	2016	2017	2018
1. Share capital at year-end					
Share capital	623.5	632.9	636.6	638.0	639.3
Number of ordinary shares outstanding	207,841,111	210,961,404	212,194,766	212,658,725	213,104,081
Maximum number of shares to be created in future by exercise of share subscription options	5,841,789	2,615,865	1,320,693	783,204	309,738
2. Operations and results for the year					
Revenues excluding tax	224.4	208.6	233.3	258.5	228.6
Earnings before tax, employee profit-sharing, depreciation, amortisation and provisions	609.3	625.7	367.9	337.4	443.4
Income tax benefit	77.4	93.8	78.0	9.8	61.4
Earnings after tax, employee profit-sharing, depreciation, amortisation and provisions	662.9	871.9	431.1	383.8	453.4
Distributed net profit	230.7	285.6	338.3	371.0	106.3 ^(a)
3. Earnings per share					
Earnings after tax and employee profit-sharing but before amortisation, depreciation and provisions	3.30	3.41	2.10	1.63	2.37
Earnings after tax, employee profit-sharing, depreciation, amortisation and provisions	3.19	4.13	2.03	1.80	2.13
Net dividend per share	1.12	1.36	1.60	1.75	2.08 ^(b)
4. Employees					
Average headcount during the year, of which:	852	831	818	812	828
• Engineers and managers	749	735	727	723	736
• Technicians and supervisors	103	96	91	89	92
Personnel expenses, of which:	183.2	187.1	191.5	207.7	226.4
• Total payroll for the year	130.2	131.5	137.8	151.2	164.5
• Social security and other social welfare benefits paid during the year	53.0	55.6	53.7	56.5	61.9

2014: Share capital up from €617,233,500.0 to €623,523,333.0 following a capital increase.

2015: Share capital up from €623,523,333.0 to €632,884,212.0 following a capital increase.

2016: Share capital up from €632,884,212.0 to €636,584,298.0 following a capital increase.

2017: Share capital up from €636,584,298.0 to €637,976,175.0 following a capital increase.

2018: Share capital up from €637,976,175.0 to €639,312,243.0 following a capital increase.

(a) Interim dividend.

(b) Subject to approval by the Annual General Meeting of 15 May 2019.

7.3 STATUTORY AUDITORS' REPORT

7.3.1 Statutory auditors' report on the consolidated financial statements

This is a translation into English of the statutory auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users. This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the information concerning the Group presented in the management report. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of Thales,

Opinion

In compliance with the engagement entrusted to us by your annual general meetings, we have audited the accompanying consolidated financial statements of Thales for the year ended December 31, 2018.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2018 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Accounts Committee.

Basis for Opinion

• Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

• Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from January 1, 2018 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5⁽¹⁾ of Regulation (EU) No 537/2014 or in the French Code of Ethics (*Code de déontologie*) for statutory auditors.

Emphasis of Matter

We draw attention to Note 1.2 to the consolidated financial statements which sets out the effects of the first application of IFRS 15 and 9 on the consolidated financial statements as at December 31, 2018. Our opinion is not modified in respect of this matter.

Justification of Assessments – Key Audit Matters

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Recognition of contracts over time

Risk identified

A very significant part of the Group's revenue and current operating income stems from contracts recognised according to the percentage of completion method. These contracts often span several financial years.

Your Company determines the revenue and margin of the contracts recognized over time according to the terms and conditions described in Notes 1.5 "Main sources of estimation" and 13-c "Revenue" to the consolidated financial statements.

The recognition of the revenue and margin relating those contracts during an accounting closing primarily depends on:

- estimates of the revenue and margin at completion, and notably the level of provisions for technical and commercial risks;
- costs incurred to date in relation to total costs estimated at completion.

For each contract, estimates of at completion, as well as the costs incurred, are based on the Group's internal systems and procedures, notably involving project managers. These estimates are reviewed regularly by the managements of the Global Business Units and the executive management, particularly at each closing date.

Our response

Our work notably consisted in:

- evaluating the Group's systems and procedures for estimating revenue and costs at completion and measuring cost progress;
- reconciling the contract management data with the accounting data;
- selecting contracts that are significant due to their financial impact and risk profile, and interviewing the account managers, the managements of the Global Business Units and the executive management on the progress made on these contracts and their assessment of the risks in order to:
 - to assess the accounting translation of the contractual clauses, particularly regarding the revenue to be recognized under performance obligations not yet fulfilled;
 - appreciate for these contracts the analyses of the Group which enabled to conclude on the transfer of progressive control or at completion and, if necessary, the identification of the various performance obligations. In particular, we have taken into account the contractual clauses of termination for convenience, legal notes and margin simulations carried out by the Group;

We considered the recognition of contracts over time to be a key audit matter, given the impact of these contracts on the consolidated financial statements of the Group and the level of estimation required by Management to determine results upon completion.

- corroborate the main assumptions of revenue and costs at completion with costs incurred to date, contractual data and exchange with the customer or its representatives. This work includes the experience gained in previous years on these contracts or similar contracts;
- assess the consistency of the revenue recognized on the contract and other items in the income statement and balance sheet in relation to the contractual conditions.

Litigation

Risk identified

The Group carries out its activities in France and abroad in legal and regulatory environments that are complex and constantly evolving. Therefore, it is exposed to legal, technical and commercial risks.

The Group's legal department centralizes and handles, with assistance from the subsidiaries concerned, all civil, commercial and criminal litigation and claims.

The assessment of these risks and litigation by Management has resulted in the Group recording liabilities and provisions for impairment. Note 11 "Litigation" to the consolidated financial statements describes potential uncertainties relating to significant litigation and their progress.

We considered the listing and evaluation of litigation and the associated risks to be a key audit matter in view of the significance of the estimates made by Management and the potential materiality of their impact on the Group's income and shareholders' equity, should these estimates change.

Our response

With regard to technical and commercial litigation, our work notably consisted in:

- Evaluated the procedures in force within the Group relating to the listing, assessment and reflection in the accounts of civil, commercial and criminal litigation and claims and assessing their correct application via sampling;
- interviewing the Finance Department, the Legal Department and the Secretary and General Council, as well as the managements of the main consolidated entities, on the status of all significant litigation;
- questioning the Group's main lawyers to confirm the listing of litigation and assess the nature of the related risks and liabilities;
- reading the minutes of the Audit and Accounts Committee and the Board of Directors' meetings in order to assess the completeness of the list of significant litigation.

Lastly, we considered whether the risks and significant litigation identified during the implementation of these procedures are described appropriately in Note 11 "Litigation" to the consolidated financial statements.

Specific Verifications

As required by laws and regulations and in accordance with professional standards applicable in France we have also verified the information pertaining to the Group presented in the Board of Directors' management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement provided for by Article L. 225-102-1 of the French Commercial Code (*Code de commerce*) is included in the information pertaining to the Group presented in the management report, it being specified that, in accordance with the provisions of Article L. 823-10 of said Code, we have verified neither the fair presentation nor the consistency with the financial statements of the information contained in this statement which must be subject to a report by an independent third party.

Report on Other Legal and Regulatory Requirements

• Appointment of the statutory auditors

We were appointed as statutory auditors of Thales by the Annual General Meeting held on June 25, 1983 for MAZARS and on May 15, 2003 for ERNST & YOUNG Audit.

As at December 31, 2018, MAZARS was in the thirty-sixth year and ERNST & YOUNG Audit in the sixteenth year of total uninterrupted engagement.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Accounts Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory auditors' Responsibilities for the Audit of the Consolidated Financial Statements

• Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is

not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a

material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;

- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

• Report to the Audit and Accounts Committee

We submit to the Audit and Accounts Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Accounts Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Accounts Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for statutory auditors. Where appropriate, we discuss with the Audit and Accounts Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Courbevoie and Paris-La Défense, February 25, 2019

The statutory auditors French original signed by

Mazars

Grégory Derouet
Dominique Muller

Ernst & Young Audit

Philippe Diu
Serge Pottiez

7.3.2 Statutory auditors' report on the financial statements

This is a translation into English of the statutory auditors' report on the financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users. This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the management report and other documents provided to the shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of Thales,

Opinion

In compliance with the engagement entrusted to us by your annual general meetings, we have audited the accompanying financial statements of Thales for the year ended December 31, 2018.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2018 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Accounts Committee.

Basis for Opinion

• Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Financial Statements section of our report.

• Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from January 1, 2018 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5⁽¹⁾ of Regulation (EU) No 537/2014 or in the French Code of Ethics (*Code de déontologie*) for statutory auditors.

Justification of Assessments – Key Audit Matters

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Equity investments

Risk identified

Equity investments, recorded in the balance sheet as at December 31, 2018 for a net amount of M€ 9,156 represent a significant balance sheet item. They are recorded at their lower acquisition cost or at their value in use.

As stated in Note 8 "Equity investments" to the financial statements, the inventory value is determined based on profitability forecasts, the underlying assets, recent transactions or the market price of any listed securities.

The estimate of the inventory value of these equity investments requires the exercise of the management's judgment in the choice of information to consider depending on the investments concerned. Depending on the situation, this information may correspond to historical information (shareholders' equity) or forecast information (value of future discounted cash flows).

We considered that the correct valuation of equity investments constituted a key audit matter.

Our response

In order to assess the reasonableness of the equity investment estimates, our work mainly consisted in:

- for valuations based on underlying asset information:
 - comparing the shareholders' equity used against the financial statements of entities which were subject to an audit or analytical procedures,
- for valuations based on forecasts:
 - assessing the reasonableness of cash flow projections in relation to the economic and financial context of each business,
 - assessing the reliability of the process for establishing forecasts by reviewing the causes for variances between previous forecasts and actual figures,
 - comparing the consistency of the cash flow projections with the most recent management estimates presented to the Board of Directors,
 - evaluating the consistency of the growth rate used for the projected flows with market analyses and the consensus observed,
 - evaluating the calculation of the weighted average cost of capital applied to the flow projections.

Lastly, we also assessed the appropriateness of the information provided in Note 8 to the financial statements.

Specific Verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

- **Information given in the management report and in the Other Documents with respect to the Company's financial position and the financial statements provided to the Shareholders**

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the Board of Directors' management report and in the other documents with respect to the financial position and the financial statements provided to the shareholders.

We attest that the information relating to payment terms referred to in Article D. 441-4 of the French Commercial Code (*Code de commerce*) is fairly presented and consistent with the financial statements.

- **Report on Corporate Governance**

We attest that the Board of Directors' Report on Corporate Governance sets out the information required by Articles L. 225-37-3 and L. 225-37-4 of the French Commercial Code (*Code de commerce*).

Concerning the information given in accordance with the requirements of Article L. 225-37-3 of the French Commercial Code (*Code de commerce*) relating to remunerations and benefits received by the directors and any other commitments made in their favor, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from controlling and controlled companies. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a public purchase offer or exchange, provided pursuant to Article L. 225-37-5 of the French Commercial Code (*Code de commerce*), we have agreed these to the source documents communicated to us. Based on our work, we have no observations to make on this information.

- **Other information**

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

- **Appointment of the statutory auditors**

We were appointed as statutory auditors of Thales by your Annual General Meeting held on June 25, 1983 for MAZARS and on May 15, 2003 for ERNST & YOUNG Audit.

As at December 31, 2018, MAZARS was in the thirty-sixth year and ERNST & YOUNG Audit in sixteenth year of total uninterrupted engagement.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Accounts Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory auditors' Responsibilities for the Audit of the Financial Statements

- **Objectives and audit approach**

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

- **Report to the Audit and Accounts Committee**

We submit to the Audit and Accounts Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Accounts Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Accounts Committee with the declaration provided for in Article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France such as set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*code de déontologie*) for statutory auditors. Where appropriate, we discuss with the Audit and Accounts Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Courbevoie and Paris-La Défense, February 25, 2019

The statutory auditors
(French original signed by)

Mazars

Grégory Derouet

Dominique Muller

Ernst & Young Audit

Philippe Diu

Serge Pottiez

7.4 STATUTORY AUDITORS

For the period covered by the historical financial data, the Thales group statutory auditors were as follows:

7.4.1 Principal statutory auditors

Mazars

61, rue Henri Regnault
92400 Courbevoie – France
Represented by Mr Dominique Muller and Mr Gregory Derouet.
Current term approved by the General Meeting of 24 May 2013 and
expiring with the audit of the 2018 financial statements.

Ernst & Young Audit

1/2, place des Saisons
92400 Courbevoie – Paris-La Défense 1 – France
Represented by Mr Serge Pottiez and Mr Philippe Diu.
Current term approved by the General Meeting of 13 May 2015 and
expiring with the audit of the 2020 financial statements.

7.4.2 Additional statutory auditors

Hervé Hélias

61, rue Henri Regnault
92400 Courbevoie – France
Current term approved by the General Meeting of 24 May 2013 and
expiring with the audit of the 2018 financial statements.

Auditex

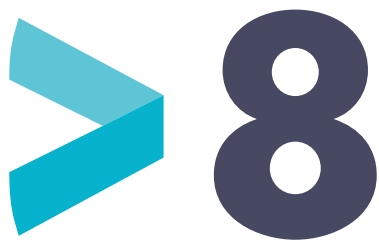
1/2, place des Saisons
92400 Courbevoie – Paris-La Défense 1 – France
Current term approved by the General Meeting of 13 May 2015 and
expiring with the audit of the 2020 financial statements.

7.4.3 Statutory auditors' fees

The amount of fees paid to the statutory auditors of Thales SA (parent company) and members of their networks recognised in profit and loss for 2017 and 2018 are detailed in Note 14 to the Consolidated Financial Statements (page 221).

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APPENDICES



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8.1 DECLARATION FROM THE PERSON RESPONSIBLE FOR THE REGISTRATION DOCUMENT

I hereby certify that, after having taken all reasonable measures to this effect, to the best of my knowledge, the information contained in this Registration Document is accurate and does not omit any material fact.

I also certify that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a fair view of the assets, liabilities, financial position and results of the Company and of all the entities included in the consolidation, and that the information in this Registration Document taken from the management report and contained in the cross-reference table on pages 265 and 266 gives a fair view of the development and performance of the business and the financial position of the Company and of all the entities included in the consolidation, as well as a description of the main risks and uncertainties to which they are exposed.

I have received a letter from the statutory auditors confirming that they have completed the work they undertook to audit the information relating to the financial position and the financial statements, in addition to the historical financial statements incorporated by reference in this document, as well as a review of this document in its entirety.

Paris, La Défense, 8 April 2019

Patrice Caine
Chairman and CEO

8.2 CHANGES MADE TO THE STRUCTURE OF THE 2018 REGISTRATION DOCUMENT

Thales's 2018 Registration Document has been restructured as part of the implementation of the provisions relating to the Non-Financial Performance Statement and in anticipation of the application, as from 21 July 2019, of Regulation (EU) 2017/1129 of 14 June 2017 revising Prospectus Directive 2003/71 (EC) of 4 November 2003. It is now arranged by topic and has changed in comparison to the 2017 Registration Document as follows:

- a new Chapter 1, "Business model", has been created at the beginning of the Registration Document. This underpins the Group's Non-Financial Performance Statement and presents an overall profile of the Group, its environment, its strategy and its main financial and non-financial objectives for the medium term;
- Chapter 2, "Activities", now contains the report on operations and performance, as well as two new sections, one pertaining to investment and the other to the acquisition of Gemalto;
- Chapter 3, "Risk factors", has been revised and is now called "Risk factors, internal control and risk management" to better compare the description of the risks with the description of the risk control environment. New risks have been included, most notably those selected for the Non-Financial Performance Statement, while other risks deemed less material have been removed. Furthermore, risks have been reclassified under the three main categories on which the Group bases its analysis (operational and strategic risks, legal and regulatory risks, and financial risks). The risks considered the highest are described at the beginning of each category. Lastly, the presentation of the various risks has been standardised and a number of references have been made to Chapters 5 and 7 to improve readability;
- Chapter 4, "Corporate governance", is now called "Governance and compensation" and has been restructured and updated in light of the revisions made to the Afep-Medef code in June 2018. Information about employee profit-sharing that appeared in section 4.2.3.6 of the 2017 Registration Document has been moved to section 6.2.3.7, while information about stock option plans that appeared in section 3.4.2 of the 2017 Registration Document can now be found in section 6.2.2.2. Lastly, information about incentive bonuses and profit-sharing provided in section 3.5 of the 2017 Registration Document has been moved to section 5.4.1.1.3;
- Chapter 5, "Corporate responsibility and non-financial performance", now includes standard disclosures for the Non-Financial Performance Statement (with the exception of the business model that appears in Chapter 1) and other CSR information that was already included in the 2017 Registration Document;
- the financial statements, statutory auditors' reports and information concerning the statutory auditors (appointment and fees) can be found in Chapter 7;
- lastly, this current chapter (Chapter 8) contains the declaration by the signatory of the Registration Document and all cross-reference tables. Two new tables have been created, one relating to the Non-Financial Performance Statement which succeeds to a cross-reference table set in section 5.5 of the 2017 Registration Document and the other relating to the report on corporate governance. The cross-reference table in the annual financial report now includes a new table relating to the Group's management report.

8.3 CROSS-REFERENCE TABLE OF THE ANNUAL FINANCIAL REPORT AND MANAGEMENT REPORT

The cross-reference table below may be used to identify the information contained in this Registration Document that forms the basis of the Annual Financial Report, pursuant to Articles L. 451-1-2 of the French Monetary and Financial Code and 222-3 of the AMF General Regulations. It includes information required for the annual management report that must be prepared by the Board of Directors in accordance with Articles L. 225-100 *et seq.* of the French Commercial Code.

	Section	Page
Declaration by the parties responsible for the Annual Financial Report		
Group management report		
Article L. 225-100 of the French Commercial Code:		
Analysis of changes in business	1, 2.1, 2.2, 2.3	6, 16-19, 23-25, 26-34
Analysis of results	2.3	33 and 34
Analysis of financial position, including debt	2.3.7	34
Key financial and non-financial performance indicators	1, 2.3, 5.3	13, 26-34, 105 and 106
Main risks and uncertainties	3	43-56
Information about financial risks relating to the effects of climate change and measures taken to reduce them	3.1.9, 5.2, 5.5.2 to 4	50, 103, 122-134
Main features of internal control and risk management procedures relating to the preparation and processing of accounting and financial information	3.4	57-61
Information on the use of financial instruments	3.3.2, 3.3.3, 7.1.6	55, 183, 193, 197-199, 219, 225
Exposure to price, credit, liquidity and cash flow risks	3.1.1, 3.1.3, 3.3.1, 3.3.5, 3.4, 7.1.6 Note 6	43, 44, 55, 56, 58, 59, 197 to 201
Article L. 225-102 of the French Commercial Code:		
Employee share ownership	1, 5.4.1.1.3, 6.2.1.3, 6.2.3.4.1, 6.2.3.6 and 6.2.3.7, 7.2.2.5 Notes 14 and 15	6, 108, 154, 160, 163 and 164, 195, 205, 211, 220, 240, 241
Article L. 225-102 of the French Commercial Code:		
Non-financial performance statement^(a), including		
Situation during financial year 2018	1	10-12
Main risks identified	3, 5.2	43-56 and 102-104
Related policies and performance measures	5.3-5.7	105-146
Responsibility of the independent third party	5.8	147
Duty of care (Art. L. 225-102-4 of the French Commercial Code)	5.7.3.2	141-143
Other social and environmental information contained in the management report (Art. L. 225-100-1 4, L. 225-102-2 and L. 225-37-1 of the French Commercial Code)	5.4.2.1 5.5.1 to 5.5.4	112-113, 122 to 134
Article L. 232-1 of the French Commercial Code:		
Situation during financial year 2018	2.3	26-34
Predictable developments	2.3.9	34
Significant events since year end 2018	1, 2.5, 7.1.6 Note 12, 7.2.2.5, Note 22	12, 13, 37, 216, 249
Research and development activities	2.2	23-25
Existing branches	7.2.2.5 Note 24	253

(a) For more detail revert to the cross reference table for the non-financial performance statement in section 8.6.

	Section	Page
Article L. 233-6 of the French Commercial Code:		
Acquisition of significant interests companies with their registered office in France	N/A	N/A
Activities and results of Thales SA parent company	2.6.1.2, 2.6.1.3, 7.2	39, 222 to 253
Activities of Thales SA subsidiaries during financial year 2018	7.2.2.5 Note 23	250-251
Article L. 233-13 of the French Commercial Code:		
Breaches of thresholds in the Company in 2018	6.2.3.3.3	158 and 159
Article R. 225-102 of the French Commercial Code:		
Table of results for the last 5 financial years	7.2.2.6	253
Article L. 225-211 of the French Commercial Code:		
Buyback by the Company of its own shares	6.2.3.4; 7.2.2.5 Note 14	160-161, 240-241
Articles L. 225-185 and L. 225-197-1 of the French Commercial Code:		
Reports on stock options and free shares	6.2.2.1 and 2, 6.2.3.5.1 and 4 7.1.6 Note 9, 7.2.2.5 Note 15	155 to 156, 161 to 163, 210, 241
Articles L. 233-7 and L. 233-13 of the French Commercial Code:		
Information about the shareholder structure	6.2	153-164
Article L. 441-6-1 of the French Commercial Code:		
Information about supplier and customer payment terms	7.2.1.2	223
Article L. 511-6 of the French Monetary and Financial Code		
Amount of loans with maturities of less than two years granted to SMEs	N/A	N/A
Art. 243 <i>bis</i> of the French Tax Code		
Dividends distributed over the last three financial years	6.4.1.4	169
Art. 223 <i>quater</i> of the French Tax Code		
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Other information		
Parent company management report	7.2.1	222
Summary of transactions made by directors involving Company securities (Art. 223-26 of the AMF General Regulations)	4.6	99

8.4 CROSS-REFERENCE TABLE FOR THE REPORT ON CORPORATE GOVERNANCE

Upon recommendation of its Governance & Remuneration Committee, the Board of Directors approved, during its meetings of February 25th and April 3rd, 2019, its report on corporate governance, and asked the Chairman and CEO to report about it to the Shareholders' Meeting of May 15th, 2019. Before being presented to the Governance & Remuneration Committee, such report was jointly established by representatives of the Group Secretary, Finance and Human Resources Departments.

For ease of reference, the following cross-reference table may be used to identify the information contained in this Registration Document that forms the basis of such report on corporate governance, established pursuant to Articles L. 225-37 and subs. of the French Commercial Code.

	Section	Page(s)
Compliance with a Corporate Governance Code	4.2	73
Composition and operating procedures of the Board of Directors	4.2.1	73 to 78
Corporate management organisational procedures	4.2.1	76
Balanced gender representation on the Board of Directors	4.2.1	76
Preparation and organisation of meetings of the Board of Directors	4.2.3	79 to 81
Restrictions on the powers of the Chief Executive Officer	4.2.1 and 4.2.6	78 and 83
Diversity policy of the Board of Directors and its committees	4.2.5	82
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8.5 CROSS-REFERENCE TABLE (ANNEX 1 OF EUROPEAN REGULATION NO. 809/2004)

To facilitate reading of this Registration Document, the following cross-reference table may be used to identify the main information required under Annex 1 of European Regulation No. 809/2004.

EC Regulation No. 809/2004

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2.2	Statutory auditors having resigned, been removed or not having been re-appointed during the period covered	N/A
3.	Selected financial information	
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9.2.3	Governmental, economic, fiscal, monetary or political policies or factors that have materially affected, or could materially affect, directly or indirectly, the Company's operations	26 to 34, 43 to 56
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No.	Heading	Page(s)
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No.	Heading	Page(s)
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23.	Third party information, statements by experts and declarations of interest	
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23.2	Confirmation that information has been faithfully reproduced and that no facts have been omitted which would render the reproduced information inaccurate or misleading	N/A
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8.6 CROSS-REFERENCE TABLE FOR THE NON-FINANCIAL PERFORMANCE STATEMENT

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Description of the risk related to "protecting the health and safety of employees"	5.2 and 5.4.3
Policies, due diligence procedures and outcomes related to protecting the health and safety of employees	5.4.3.1 and 5.4.3.2
Description of the risk related to "vigilance regarding suppliers' compliance with corporate responsibility issues"	5.2 and 5.7.3
Policies, due diligence procedures and outcomes related to vigilance regarding suppliers' compliance with corporate responsibility issues	5.7.3.1 and 5.7.3.2
Other mandatory information:	
<ul style="list-style-type: none"> Collective bargaining agreements entered into by the company and their impact on the company's economic performance and employee working conditions 	5.4.3.1.1
<ul style="list-style-type: none"> Action taken to combat discrimination and promote diversity and measures to support people with disabilities 	5.4.2 and 5.7.5
<ul style="list-style-type: none"> Combating food waste Combating food insecurity, respect for animal welfare, responsible, fair and sustainable food 	This information is not relevant to the Group's activities, which are not involved in industrial food production or consumption cycles
Environmental consequences	
Description of the risk related to "environmental impacts related to the Group's activities"	5.2 and 5.5.2.2
Policies, due diligence procedures and outcomes related to the environmental impacts related to the Group's activities	5.5.2 and 5.5.3
Description of the risk related to the "anticipation of environmental standards in product design"	5.2 and 5.5.4
Policies, due diligence procedures and outcomes related to the anticipation of environmental standards in product design	5.5.4
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<ul style="list-style-type: none"> Consequences on climate change of the company's activity and use of the goods and services it produces 	5.5.3 and 5.5.4.4
<ul style="list-style-type: none"> Circular economy 	5.5.1 and 5.5.2
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