High-tech solutions from Thales optimise the air passenger experience from home to the airport

- With health restrictions and regulations in place around the world, high-tech solutions from Thales (Artificial Intelligence, biometrics, etc.) offer airports, airlines and border officials opportunities to increase operational efficiency, protect passengers’ health and safety and improve the travel experience.
- A temporary digital token is created for each passenger when they check in, from any location and well before they arrive at the airport, and is then used to authenticate the individual in less than a second, with or without a mask, at different points in the airport (check-in, bag drop-off, security, passport control and boarding).
- The solution reduces passport control and boarding times by an average of 30%, easing congestion while improving airport security and enhancing the passenger experience.

As airports prepare for the busy summer period, they are facing a new set of challenges; dealing with the public health crisis and complying with new regulations on freedom of movement within the Schengen Area. Thales technologies enable airport operators, airlines and border officials to enhance the travel experience and increase security at four main points around the airport.

Secure check-in
Passengers can check in remotely from any location (home, hotel, etc.) using their airline's mobile app. The identity of each individual can then be instantly verified with face recognition software, using a combination of a selfie taken by the passenger, liveness detection and a document authenticity check. The face recognition solution checks approximately 40 points on the passenger’s face and issues an alert if there is any doubt about their identity.

Based on this identity verification and facial biometrics, a temporary digital token is then created for each passenger. The passenger's face then identifies them at check-in, bag drop-off, security, passport control and the boarding gate, removing the need to show a ticket and ID card at each checkpoint. The
system analyses the facial features of an individual in real time, even when they are wearing a surgical mask, and matches it to the corresponding digital identity in the system. No personal data or photos are stored; an encrypted code created during check-in is the only reference the system requires.

**Passengers are identified at the boarding gate in less than a second**

During boarding, passengers are instantly identified by face recognition, without needing to remove their masks or show their boarding passes. In some cases, ground staff may be required to ask a passenger to show their health pass, which can be stored in a digital ID wallet on their smartphone, to prove their vaccination status, PCR test results, etc. This mobile ID wallet protects the passengers' personal data and certifies the authenticity, validity and integrity of the health data. Health passes can also be authenticated when passengers check in before arriving at the airport.

This biometric solution for boarding gates reduces boarding times by one-third. The system erases the temporary token once the aircraft has taken off.

**Smart airport operations to optimise the flow of passengers**

High-tech solutions from Thales also help to manage airport operations at numerous destinations. The Group provides airport operators with smart solutions and decision support tools that help them optimise and control passenger flows inside the terminal (from the entrance to the boarding and/or arrival gate). Using high-performance algorithms, these tools and solutions enable airport operators and other stakeholders to model flight arrivals and departures as well as other airport data and run simulations. Based on those simulations, they can anticipate possible travel disruptions (late or cancelled flights) and adjust resource availability on the ground to improve the passenger experience and reduce waiting times.

**New border kiosks to simplify passport control for non-European nationals**

Under the new requirements for member states of the Schengen Area, non-European nationals arriving in France will soon be able to use Thales's self-service border kiosks to pre-register their identity, including their biometric data (fingerprint and facial biometrics), in less than one minute.

Pre-registration offers time savings of 30% at passport control. The system software is optimised for ultra-rapid document authentication and fraud detection. Several ports of entry (airports, ports, train stations) are due to be equipped with Thales' border kiosks between now and May 2022.

“For several decades, Thales has been helping to manage and secure sensitive infrastructure like stations, sports arenas and other major cultural venues. With its expertise in new technologies such as AI, deep learning and biometrics, boosted by the acquisition of Gemalto in 2019, Thales is in a position to provide airports and their ecosystems with new ways to increase operational efficiency, better protect the health and safety of passengers and enhance the travel experience. Thales technologies offer secure solutions that simplify the passenger experience while guaranteeing that personal data is protected and managed with complete transparency.” **Philippe Keryer, Executive Vice President, Strategy, Research and Technology, Thales**
About Thales

Thales (Euronext Paris: HO) is a global leader in advanced technologies, investing in digital and “deep tech” innovations – connectivity, big data, artificial intelligence, cybersecurity and quantum computing – to build a confident future crucial for the development of our societies. The Group provides its customers – businesses, organisations and governments – in the defence, aeronautics, space, transport, and digital identity and security domains with solutions, services and products that help them fulfil their critical role, consideration for the individual being the driving force behind all decisions.

Thales has 81,000 employees in 68 countries. In 2020 the Group generated sales of €17 billion.