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SITA has announced the results of its biometric-enabled Proof of Concept (PoC) which is designed to support a low-touch passenger experience and optimise passenger processing at Istanbul Airport (IST). The six-month trial showed that there was a 30% reduction in boarding times and increased satisfaction of participating passengers and airlines, as well as reducing risks associated with Covid-19 thanks to the low-touch passenger journey. The intuitive biometric solution allowed airline agents to easily enrol passengers on the existing SITA Flex common-use check-in counters. Once enrolled, passengers were able to simply scan their face at every step of the way, from security check, lounge access, and boarding, without having to touch any surfaces. The PoC conducted with Turkish Airlines involved the use of sophisticated biometric technology across multiple touchpoints. These included a common use terminal (CUTE) for Smart Path enrolment, a PaxCheck boarding pass verification point where passengers gain access to the gates, IST lounge access verification, and boarding gate verification.
Safety and operational efficiency have become critical factors for airports and airlines to emerge from the pandemic according to the latest SITA IT Insights report. As passengers return to the skies, new health-focused processes such as PCR test verification present operational challenges to reduce congestion at airports.

INFORM in Germany has announced a contract award by Peachtree City, GA-based GAT Airline Ground Support which will employ its GroundStar (GS) Planning Staff & Equipment optimisation solution. Planners are supported through the solution's automated optimisation of staff shift demand and ground service support equipment requirements. By delivering optimised asset utilisation, scenario planning capabilities and workload plus shift demand planning, organisations derive valuable benefits. These include service level agreement adherence; maximised resource revenues; the balancing of airline, airport, and passenger needs; support to staff's schedule and service time preferences, as well as their safety; and overall enhanced customer service achieved through optimised operational coverage. INFORM's GS Planning Staff & Equipment will be used for strategic and operational planning of staff and equipment at GAT's North American locations.

Siemens Logistics has won a major order for the large-scale expansion of the baggage handling system in Terminal 2 (T2) of Incheon International Airport (ICN) in South Korea. The contract will help airport operator Incheon International Airport Corporation increase capacity. In addition to supplying extensive baggage conveying and sorting technology, Siemens is responsible for the technical project management, layout design, and the software solutions. The project scope also includes integrating the new equipment into the existing system. Siemens Logistics will supply high-throughput VarioTray conveyor technology to transport baggage quickly and reliably in T2. For the final sorting of the

bags, the company will implement several high-performance VarioSort TTS tilt-tray sorters with a total length of more than 3 km. In addition, the capacity of the VarioStore early bag store, which has been in operation since 2018, will be expanded significantly to accommodate a total of 6,000 storage spaces. Furthermore, the departures and arrivals zone will be fitted with additional carousels.
Fully integrated automation will form the brain of the system, with functionalities including the computer-based monitoring and control of all technical processes with Supervisory Control and Data Acquisition (SCADA). The software will control both existing and new system components across the whole of Terminal 2, enabling extremely reliable baggage handling. To ensure a high level of fail-safety, Siemens will implement state-of-the-art hot backup controls in conjunction with a virtualised server architecture for maximum system availability.

Siemens Logistics has successfully completed the enhancement of the existing baggage handling system (BHS) at Milan Bergamo Airport (BGY) in Italy. The contract with airport operator SACBO also included the integration of an explosives detection system (EDS) based on Standard 3 of the European Civil Aviation Conference (ECAC). In addition, the project covered engineering, project management, supply, installation, and commissioning of various conveying and diverting systems as well as a state-of-the-art programmable logic controller (PLC) and IT software. The new BHS, together with an expansion of the terminal, enables higher throughput and increases airport capacity by more than 50%. Despite the challenges the pandemic has brought, BGY has continued to fully implement its development plan.
Siemens Logistics completed the enhancement of the BHS prior to the given deadline. Hold baggage screening at Bergamo Airport is now compliant with the latest legislation for maximum security as stipulated in ECAC Standard 3. The collaboration between Siemens Logistics and Milan Bergamo Airport will continue with an operation & maintenance (O&M) contract to ensure full support and the best performance for the newly extended BHS.

Aviator, a Nordic one-stop shop for aviation ground handling services, **recently announced the introduction of the Vestergaard electrical chassis, able to carry several GSE applications, such as water and lavatory carts, increasing the base's operational capability and reducing Aviator's environmental footprint.** Vestergaard Company's fully electric 12-t chassis is equipped with a 40 kWh lithium-ion battery with enough capacity to drive up to approximately 50 km and operate for around 12 hr. Aviator has chosen the version with a fully enclosed cabin with heat and air-conditioning. The unit can also be delivered without doors in an open-configuration. The introduction of this new GSE marks Aviator's next step towards more sustainable and eco-friendly operations, under the company's sustainability plan. Vestergaard electrical chassis allows Aviator to operate equipment in closed gate areas with zero emission, no small particle pollution, while practically eliminated equipment noise.

Memmingen, Germany-based Goldhofer is electrifying its GSE products, while Webasto, also based in Germany, not only supplies batteries for the vehicles, but also the required electronics know-how and technical support. Together, the two companies are bringing the optimised Sherpa E New Gen cargo tow tractor to airports. The advantages of an electrically-powered cargo tractor over one with an internal combustion engine are numerous: reduced CO_2 emissions, lower noise emissions, less local particulate pollution, a more pleasant driving experience (as there is no longer a need to shift gears), a significantly more positive torque curve and equivalent performance. Moreover, electric tractors are less maintenance-intensive. Since 2017, the Sherpa E has already been providing quiet and emission-free operation on airport aprons around the world. Some 30 tons of CO_2 per annum can be saved by using it.
Depending on the version, the Sherpa E uses either one or two 35 kWh batteries from Webasto. When selecting the battery Goldhofer took various key aspects into consideration. One of the most important

was that the battery systems are of modular design, which allows them to be used across various vehicles.

The electric version of Goldhofer's AST-2 towbarless tow tractor, also known as the Phoenix, has successfully completed its test phase and is now ready for action on the airport apron. The Phoenix is the flagship product among Goldhofer's towbarless aircraft tractors. It is a powerful performer, offering speeds up to 32 km/hr for maintenance tows. The Phoenix E boasts the same range of performance in terms of tractive power, manoeuvrability, and reliability as the diesel version, and offers additional advantages such as lower operating costs and longer maintenance cycles. Like its diesel-powered counterpart, the Phoenix E is capable of handling all aircraft with up to 352 t MTOW, with the power delivered by a 220 kW direct drive designed for reliable aircraft handling.
The high-performance electric drive concept works with extremely efficient 700 V lithium-ion batteries, which have proven themselves in the application of electric buses, meeting the highest standards of safety. In addition, the TMS system (Thermo Management System) that is part of the IonMaster concept delivers very short charging times, supporting quick opportunity charging. The vehicles can be easily charged at all standard AC and DC charging points with up to 150 kW.

Princess Juliana International Airport (SXM) in Sint Maarten has extended its biometric technology contract with Vision-Box. The expanded deal will see the installation of the latest and innovative biometric service platform across the airport. This partnership is expected to support the economic recovery of the island following the impacts of Hurricane Irma and Covid-19. This contract extension builds on the firm's partnership with SXM in 2015, when the airport and the Immigration Border Protection service launched Vision-Box's biometric Automated Border Control (ABC) solutions along with an Advance Passenger Information System (APIS).
The latest technology uses the Orchestra digital identity management platform, which is an advanced contactless passenger processing technology that provides safety and security for passengers at the airport in response to the Covid-19 pandemic. It also helps Sint Maarten stakeholders to have control over the flow of people on-premises and improves entry/exit systems by collecting passenger data insights before their arrival at the airport. The company noted that the new technology offers a range of digital tools that help to reduce or eliminate passenger contact with touchscreen surfaces, as well as the physical interaction with airport and airline staff.