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Systems Interface Ltd. (SIL), a member of the Frequentis Group and an aviation systems integrator, has secured a contract from the Irish Air Corps to update navigational systems at Casement Aerodrome in Baldonnell, Ireland. The project includes supplying, installing, and commissioning an Indra Doppler VHF Omnidirectional Range (DVOR) and two Indra Distance Measuring Equipment (DME) units. These updates will replace systems installed in 2002 and enhance the existing Instrument Landing System (ILS).

SIL's responsibilities encompass a full turnkey service for the duration of the contract, which involves project management, engineering design, installation, commissioning, training, testing, and flight calibration. The project aims to be completed by the first quarter of 2025.

The new systems being installed represent the latest in global navigational aid technology, offering features like licensed encrypted radio links for remote control and monitoring, as well as a refurbished DVOR counterpoise and a new equipment shelter. The Irish Air Corps uses Casement Aerodrome as its primary airfield headquarters, supporting various military and non-military air services. #1221.GSE4

Schiphol Airport in the Netherlands has introduced the world's first Iron Flow Battery to support sustainable airport operations. This innovation is part of their effort to electrify ground equipment and reduce the reliance on the power grid.

The Iron Flow Battery, which uses environmentally friendly materials like iron and saltwater, offers a stable power supply for charging electric ground power units (e-GPUs) that power parked aircraft, improving air quality and reducing noise. Developed by ESS Inc. and funded partly by the EU through the TULIPS program, the battery will be tested on the A/B apron and could revolutionise ground operations by replacing traditional power sources.

Schiphol aims to expand the use of this technology, aligning with its goals to eliminate emissions from ground operations by 2030 and to become energy-positive by 2050.

DHL Express is set to electrify a third of its ground handling equipment, including 24 loaders and tractors, at Brussels Airport in Belgium this summer. The airport will establish the necessary charging infrastructure to ensure the efficient operation of time-critical shipments. This initiative follows a successful test phase and is part of a broader effort to reduce DHL's carbon footprint at the airport by more than half.

The electrification project is partially funded through the Stargate project, supported by the European Green Deal. DHL has already switched to all-electric crew buses and tarmac cars. CEO Kirsten Carlier of DHL Aviation praised the technical department's rapid progress in electrifying ground equipment and maintaining the new vehicles.

Arnaud Feist, CEO of Brussels Airport, emphasised the significant reduction in CO2 emissions and noise impact, benefiting staff and local residents. The Stargate programme, running until the end of 2026, includes 22 partners aiming to implement 30 projects focused on decarbonisation and improving local environmental quality. Interparking added 700 new AC chargers as part of these efforts, and the airport committed to purchasing only electric company cars, supporting its carbon reduction goals.

Berlin Brandenburg Airport (BER) has launched a digital facial recognition service called BER Biometrics for passengers departing from Terminal 1, following a two-week test phase. This contactless service allows travellers to move through the terminal without showing their boarding pass, streamlining processes such as self-service baggage check-in, access to the BER Runway fast-track check-in, and entry to the BER Tegel Lounge after prior booking.

To use BER Biometrics, passengers must register via the SmartDepart app by AirSphere and submit a selfie up to seven days before departure. At the terminal, a live image is captured and matched with the app's files to activate the service. The biometric service is available at designated self-service kiosks, a control lane entrance for the BER runway, and a column in front of the Tegel lounge. The app provider deletes the matching data after the flight while passengers manage their stored data independently within the app.

BER Biometrics is a voluntary, free service for passengers aged 16 and over. Although it replaces the need to show a boarding pass at various checkpoints, passengers must still carry official travel documents. All traditional services at BER Airport remain available without using BER Biometrics. AirSphere managed the technical implementation, which has a longstanding partnership with BER to automate passenger handling processes. The introduction of BER Biometrics aims to enhance the passenger experience by enabling quicker and more efficient access to departure gates, contributing to BER's vision of a smart airport of the future.

Circus Group has signed a preliminary agreement with Berlin Brandenburg Airport (Germany) to introduce its autonomous food supply system, the "Circus Autonomy One" (CA-1) robot. Starting in 2025, the CA-1 will serve up to 2,000 freshly prepared meals daily to airport employees without human involvement, utilising just 20 m² of space.

This initiative aims to enhance operational efficiency and hygiene in employee catering. The initial phase of the agreement aims to lay the groundwork for a potentially larger partnership, showcasing Circus Group's advanced AI and robotics technology and setting the stage for transforming food service in airports globally.

Munich Airport (Germany), in partnership with green energy company FlowGen, is testing a mobile energy container that combines photovoltaic panels and wind rotors to generate sustainable electricity for charging electric vehicles (EVs). This innovative system, located in a rental car parking lot, can produce about 200 kilowatt hours of energy on windy and sunny days, sufficient to charge four to six EVs. The 12-month pilot project will gather data to evaluate the system's efficiency and potential.

The mobile container is designed for quick installation and relocation, making it adaptable for various applications beyond airports, such as agriculture, construction, and manufacturing. This initiative aims to promote sustainable energy practices and decrease dependence on traditional power sources.

Zurich Airport in Switzerland is partnering with Smiths Detection to trial the new HI-SCAN 6040 CTiX Model S carry-on baggage X-ray scanners and the iLane A20 smart automatic tray return system at two security lanes. These advanced scanners produce 3D images, allowing passengers to leave electronics and liquids in their hand luggage, streamlining the security process for some of the airport's 2.7 million monthly passengers.

The HI-SCAN 6040 CTiX is noted for its energy efficiency, low noise levels, and high belt speed, contributing to a calmer checkpoint environment. The iLane A20 ensures a consistent flow of trays, enhancing the passenger experience. Security employees will also benefit from remote screening capabilities, enabling them to work in a quieter, separate room.

The trial will run for several months to optimise the layout to eventually equip all 26 security lanes with this technology. Despite the convenience of leaving liquids in carry-on bags, the existing restrictions on container size and total carry-on liquid volume remain unchanged. #1221.GSE11

Noida International Airport in Uttar Pradesh, India, has selected ADB SAFEGATE's Advanced Visual Docking Guidance System (A-VDGS) and Apron Management System to enhance its

operational efficiency and safety. This initiative is part of a greenfield airport project developed by Yamuna International Airport Private Limited (YIAPL), a subsidiary of Zurich Airport International AG. The cutting-edge Airside 4.0 technology, including the FLEX A-VDGS with multicolour display and advanced Apron Manager system, will significantly improve airport operations.

Christoph Schnellmann, CEO of Noida International Airport, and Bhartendu Mohan, Country Director for India at ADB SAFEGATE, highlighted the benefits of these technologies for achieving operational goals and future expansion. The project strengthens ADB SAFEGATE's long-standing relationship with Zurich Airport International AG. Noida International Airport aims to connect the greater Delhi area and Western Uttar Pradesh with national and international destinations, combining Swiss efficiency with Indian hospitality.

Airport Authority Hong Kong (AAHK) has awarded the tender to develop Hong Kong's first autonomous mass transportation system to KCM - PML Joint Venture. This system will connect the Hong Kong Port of the Hong Kong-Zhuhai-Macao Bridge (HZMB) with SKYCITY at Hong Kong International Airport (HKIA). The joint venture includes KC Smart Mobility, Prime Motors Limited, and technology provider Baidu, with Xiamen King Long supplying vehicles.

Operating on the Airportcity Link, the system will transport passengers between HZMB Port and SKYCITY in three minutes, accommodating up to 500 passengers per hour initially, with plans to increase to 2,000.

Alvest Group and EasyMile have officially launched TractEasy, a joint venture aimed at commercialising the EZTow autonomous tow tractor. This partnership combines Alvest's TLD and Smart Airport Systems (SAS) expertise with EasyMile's driverless technology to accelerate global deployment in airports and industrial sites.

TractEasy will handle all customer interactions as the exclusive distributor, optimizing performance and developing new vehicle solutions. The EZTow tractor is already the most deployed autonomous tow tractor worldwide, with notable clients like John Deere, BMW, Daimler, Changi Airport, and Japan Airlines. The joint venture leverages TLD's industrial capabilities, EasyMile's technology, and SAS's aviation distribution, which are supported by Alvest Group's financial backing. This collaboration aims to meet the growing demand and drive further innovations in the autonomous vehicle market.

TractEasy's leadership highlights the synergy between their companies and their commitment to scaling up deployments with quality, speed, and financial stability, ensuring long-term success and advancements in autonomous tow tractor solutions.

The Curaçao Express Pass, the world's first pre-flight biometric digital ID verification system for contactless border crossing, has been launched. Developed by the government of Curaçao and Curaçao Airport Holding in collaboration with Airside (part of Entrust) and Vision-Box (recently acquired by Amadeus), this new system aims to revolutionise the travel experience with advanced biometrics and digital ID verification technologies.

Branded as 'A Seamless Experience,' the pass ensures smooth travel for visitors to Curaçao through a privacy-first, interoperable data-sharing platform. Travelers can pre-enroll via the Airside Digital Identity App, which verifies their e-passport and biometric information. Upon arrival, they use an expedited immigration lane where Vision-Box Seamless Gates match their facial biometrics, allowing for quick passage through immigration.

This innovative program, developed over a decade in partnership with the Ministry of Justice, is expected to eliminate long queues and manual processes, significantly enhancing operational efficiency and passenger experience at Curaçao Airport.

Synaptic Aviation has launched a new audio AI solution to improve ground operations by accurately detecting when an aircraft's auxiliary power unit (APU) is running. This innovation enhances efficiency, reduces costs, lowers CO2 emissions, and decreases noise pollution. By increasing ground power unit (GPU) connection time and limiting APU usage, airlines can achieve significant savings. A recent study showed potential savings of over USD 23,000 annually per gate. This AI technology also

improves turnaround times, communication, and safety protocols, while ongoing AI monitoring allows for continuous optimisation and customisation of solutions.

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