Keeping the airfield
operational and safe

ADB
SAFEGATE

Airport performance
delivered from approach to departure

TOWER

AIRFIELD

GATE

SERVICE
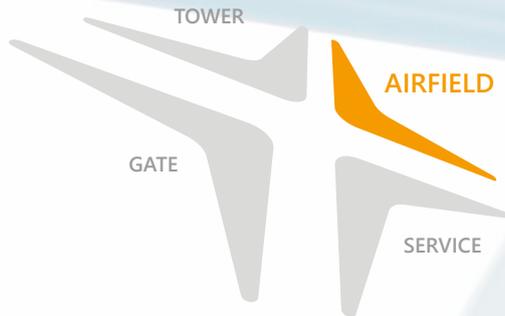
Are you prepared?

Is your airport able to deal with the rapid increase of air traffic, which IATA predicts will double by 2034? Insufficient airport performance can seriously damage the possibilities to handle future air traffic expansion, affecting both customer satisfaction and cost negatively. At the same time, the industry must align with an ambitious set of global CO_2 targets to lower its footprint. Being able to handle the increasing air traffic in a safe, green and profitable way is a challenge that faces every airport and airline.

See the bigger picture

By harmonizing operations at the gate, on the airfield and in the tower, there will be a better flow of traffic, from approach to departure. ADB SAFEGATE offers solutions for an integrated system to reduce turnaround times and increase aircraft movements.

In the following we will take a closer look at the airfield. With an 'intelligent' airfield, where airfield lighting is fully integrated with tower and gate operations, it is possible to make aircraft guidance substantially safer and more efficient.
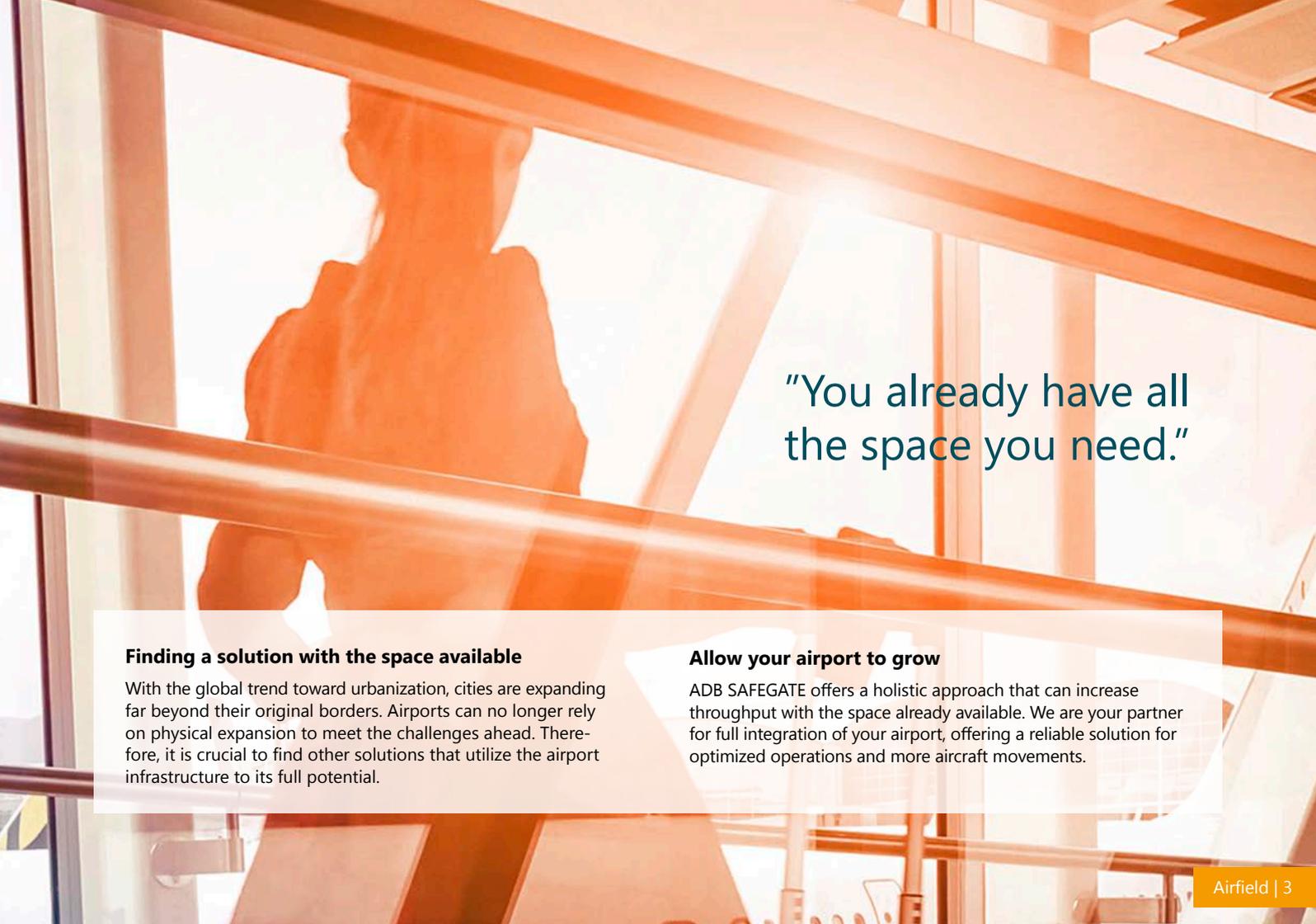
"You already have all the space you need."

Finding a solution with the space available

With the global trend toward urbanization, cities are expanding far beyond their original borders. Airports can no longer rely on physical expansion to meet the challenges ahead. Therefore, it is crucial to find other solutions that utilize the airport infrastructure to its full potential.

Allow your airport to grow

ADB SAFEGATE offers a holistic approach that can increase throughput with the space already available. We are your partner for full integration of your airport, offering a reliable solution for optimized operations and more aircraft movements.

Solutions to ensure
availability and safety

Challenges on the airfield

Maintaining safety and operational efficiency is a key issue at any airfield. Since operational interruptions are costly and impact safety, maintenance must be kept to a minimum to ensure availability. Infrastructure limitations are also a concern. Without the possibility to expand physically, airports need to optimize their flow of aircraft movements, from approach to departure. In addition, and especially faced with a rapid increase in air traffic, it is important to ensure predictability and safety for both passengers and staff with products that are reliable and robust.

At medium-sized and large airports, where there can be a number of bottle-necks and hard-to-reach areas in the infrastructure, maintenance can be difficult and cause major interruptions in the flow of aircraft. Integrated and intelligent airfield solutions minimize the need for maintenance and optimizes the aircraft flow, thus keeping the airfield more efficient and available.

The increasingly stricter environmental requirements are becoming a challenge. At the same time as air traffic increases, CO_2 emissions are to be kept to a minimum. Airports need to look into all possible solutions in order to decrease their environmental impact.

A lack of integrated solutions can lead to accidents, delays and unnecessary CO$_2$ emissions.

▶ Decreased operational usage of the airfield with subsequent lower throughput

▶ Lack of situational awareness

▶ Time-consuming maintenance when lights malfunction

An integrated airfield
is an 'intelligent' airfield

Airfield ground lighting (AGL) for visual guidance is at the heart of airfield operations. Integrated lighting makes the visual guidance process easier and improves situational awareness by switching lights on and off according to information shared by airfield surveillance and aircraft tracking systems. This allows for optimized aircraft routing to and from gates and a more efficient traffic flow, while maintaining or even raising the level of safety.

Quality products for expansion today and in the future

ADB SAFEGATE offers a complete AGL portfolio, where quality and compatibility are key features. Every product is designed to work together with other components from ADB SAFEGATE, as well as with third party products in your airfield's existing infrastructure. This modular approach means that you can choose exactly the features that your airfield requires today, knowing that you can add components whenever they are needed. With our high-quality products, you can upgrade to the latest technology and eventually reach full integration of the lighting system, easily and cost-efficiently.

Reliable, cost-efficient and environmentally-friendly

ADB SAFEGATE offers an end-to-end approach that combines our superior expertise and long experience in AGL design with market-leading AGL products and solutions, system engineering and maintenance. Every airport has its own unique needs. With the widest AGL portfolio in the market we can tailor-make systems that are reliable and cost-efficient to implement and maintain. Our innovative product offer includes the latest safety solutions and management systems, helping you to use your existing infrastructure in a more sophisticated way.

In combination with our world-class Individual Light Control and Monitoring System (ILCMS), our AGL system can greatly improve taxiing procedures. Every light in the airfield can be checked or monitored individually allowing for maintenance to be carried out quickly. The ATCO can better guide incoming and outgoing flights and with a more efficient and flexible flow of aircraft the airport's CO_2 emissions are decreased. Our offer includes the widest range of LED lights, available with integrated remotes, and ALCMS solutions that cover the entire technology spectrum. Our extensive range of power solutions, including our unique low-current 2A system, significantly lowers cost and environmental impact. With our innovative modular power solutions we are at the forefront of technology with the smallest footprint on the market.

Our integrated solutions will help you:

▶ Maximize safety from approach to departure

▶ Increase throughput by maximizing operational availability

▶ Minimize maintenance

▶ Allow for a favorable cost structure

▶ Decrease footprint

A complete AGL portfolio

▶ Airfield Lighting Solutions (LED & halogen), the first and only complete range for approach, runway, taxi-way, apron and heliport solutions.

▶ Airfield Guidance Solutions, the smartest way to guide airplanes around the airport with our LED Signs.

▶ AGL Power Solutions, the widest range of power solutions, from Thyristor to the smallest Transistor solutions on the market.

▶ The 2A low current concept offers remarkable power savings and strongly increased flexibility.

▶ Airfield Lighting Control and Monitoring System (ALCMS) helps manage high traffic volumes, guides pilots safely to their destination on the ground what-ever the visibility condition and offers a real time view on the status of the airfield ground lighting

▶ Individual Lamp Control and Monitoring System (ILCMS). Combined with ALCMS, it enables switching and monitoring of each individual light and light seg-ment of AGL serial circuits. An intelligent airfield starts with ADB SAFEGATE ILCMS solutions.

Allow for a smarter airfield

with our proven concept

With our solutions airports can handle more aircraft with greater safety, improving capacity and revenue. Effective visual guidance is still maintained, even if communications between the ATCO and the aircraft should be interrupted, or when poor visibility would otherwise hamper or stop operations.

Safety

With integrated AGL and ILCMS, taxiway lights can be switched on in sequence to guide aircraft to and from the gates. Advanced and automated control provides the ATCO with comprehensive situational awareness that greatly reduces the risk of runway incursions.

Efficiency

Our AGL system combined with the innovative ILCMS allows you to use the lighting to manage aircraft movements in a significantly more efficient way. This reduces taxiing time, especially at large hub airports with a complex layout of interlocking taxiways. In addition, our ILCMS system offers easy installation and fewer spare parts.

Sustainability

With our system of proven components, such as environmentally-friendly LED lights and our innovative low current 2A solution, you can decrease power consumption, lower cost and increase safety and efficiency. More efficient aircraft guidance on the airfield with fewer taxiing interruptions makes it possible to reduce fuel consumption and unnecessary CO_2 emissions.

Prepare the airfield
for future opportunities

With a combined experience in airfield solutions of more than 100 years, we can offer a complete portfolio and the expertise needed to deliver a safe, efficient and sustainable lighting solution. We already know that air traffic is on the increase and that physical expansion of airfields is difficult, if not impossible. It is therefore important to start looking ahead. Introduce components today that allow your airfield to evolve into a truly 'intelligent' airfield in the future, i.e. a solution where the pilot simply has to 'follow the greens' to arrive at the correct gate, efficiently and safely. However, our approach goes beyond pilot support to include making design choices to reduce footprint, ensure availability of the airport and minimize maintenance.

Read more about our solutions at adbsafegate.com or contact our coworkers at an ADB SAFEGATE office close to you

Boost airport performance

Every airport is different. A solution must be tailored to the airport's capacity, environment and business objectives. Existing airport infrastructure often contains hidden and unused capacity that can be released with an operational view of the airport.

ADB SAFEGATE offers one of the most extensive product and service portfolios, where the gate, airfield and tower are the foundation for fully integrated solutions to support airport development and optimize operational procedures.

Working closely with airport stakeholders, we use our operational know-how to enable the different parts of an airport to work together as one. ADB SAFEGATE is your partner for increasing airport performance from approach to departure.

Gate: Shortening turnaround times, our automated platforms for aircraft docking and apron management improve predictability and efficiency while minimizing the risk of accidents.

Airfield: Providing active visual guidance, our solutions for intelligent airfield lighting allow pilots to land, taxi and take-off safely and efficiently.

Tower: Supporting Air Traffic Controllers (ATCO), our solutions offer an optimized throughput and the safest way from touchdown to take off.

Services and Maintenance: Airport operations require a variety of technical support services, including maintenance and training. Our portfolio meets these needs – from concept of operations to gate and airfield lighting design, and from audit and survey to project management and customizable maintenance packages that include full maintenance.

"By creating more efficient traffic flows, with an intelligent airfield system approach, we can bring substantial efficiency improvements to your airport. For example, it has been calculated that at one major international airport, intelligent airfield lighting is saving up to three minutes additional taxi time per movement."

Christian Onselaere CEO, ADB SAFEGATE

ADB SAFEGATE is a leading provider of intelligent solutions that deliver superior airport performance from approach to departure. We partner with airports and airlines to analyze their current structures and operations, and jointly identify and solve bottlenecks. Our consultative approach enables airports to improve efficiency, enhance safety and environmental sustainability, as well as reduce operational costs. Our portfolio includes solutions and services that harmonize airport performance, tackling every aspect of traffic handling and guidance, from approach, runway and taxiway lighting, to tower-based traffic control systems and intelligent gate and docking automation.

ADB SAFEGATE has 900+ employees in more than 20 countries and serves some 2,500+ airports in more than 175 countries.

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