



# Digital tower solutions

## Efficient, scalable, comprehensive

Digitise for higher productivity and lower costs

Scale seamlessly to support growing requirements

Boost safety through enhanced situational awareness

Air Traffic Management

**FREQUENTIS**

FOR A SAFER WORLD

# Serving all civilian ATC tower needs

Airports in all parts of the world are feeling the strain as they juggle the competing demands of increasing traffic, more stringent regulations, new technologies and rising cost pressures. Frequentis offers comprehensive tower solutions that are highly integrated as well as completely modular, enabling airports of any size to address requirements ranging from a targeted upgrade project through to the strategic replacement of their entire tower system.

## Key challenges in civilian ATC

### Rising traffic

Growing numbers of flights put pressure on schedules

### Legacy systems

Older technologies increase support and maintenance costs

### Safety regulations

More demanding regulations put greater strain on operations

### Automation

Airports aim to support better decision-making by automating non-core tasks

### Ease of use

Operators require streamlined tools to maximise operational efficiency

### Future-proofing

Airports need to ensure conformity to ICAO Aviation System Block Upgrades

As air traffic increases, many airports are challenged by the need to deliver efficient, reliable and safe air traffic control (ATC) services using a disparate mixture of legacy and new technologies. For smaller airports experiencing rapid growth, there may be particular challenges around meeting ICAO safety standards. The ongoing digitisation of the industry offers opportunities to consolidate and enhance services while cutting costs, but airports may be reluctant to make investments without confidence in future support and integration.

Frequentis offers a comprehensive suite of ATC tower solutions that are fully integrated yet also modular and open. Airports can choose anything from a single product for a regional site up to a complete solution for a major international hub. Frequentis technologies will integrate seamlessly with each other and with legacy or new technologies from other providers.

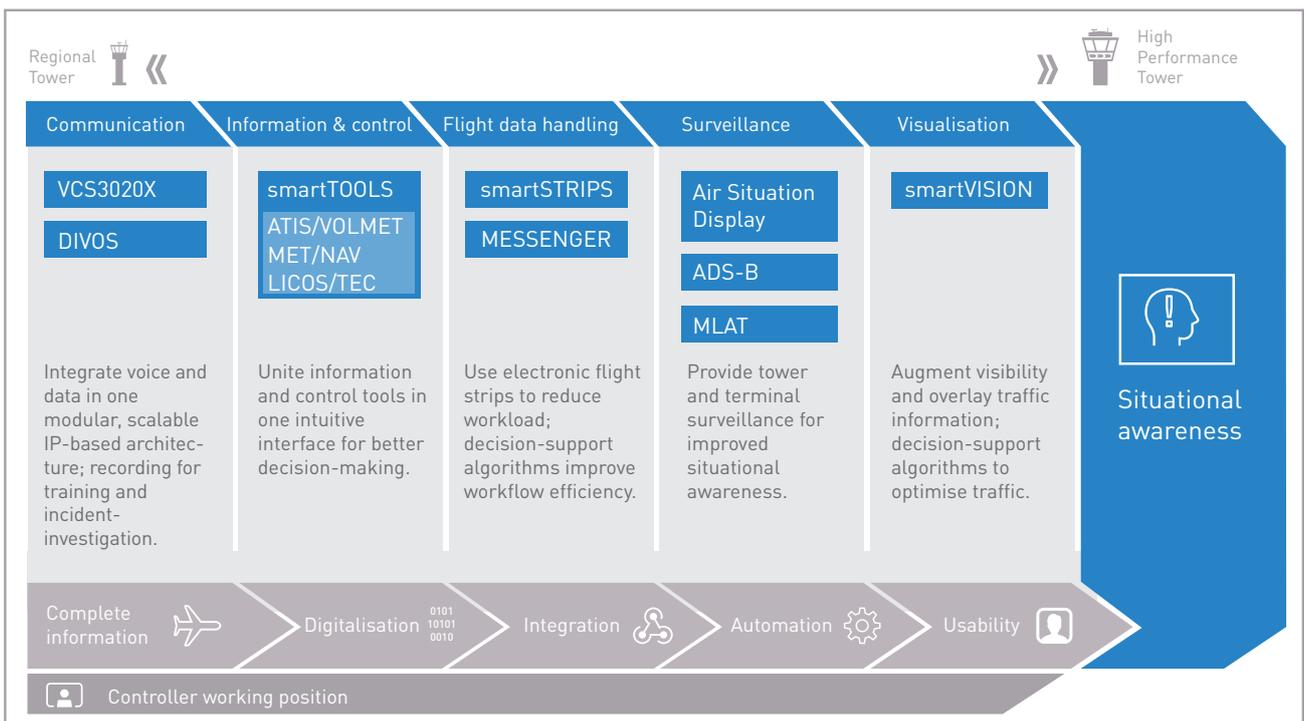
# Digital tower solutions for tomorrow's needs

Frequentis tower solutions enable airports to replace out-dated technology and equipment, reduce maintenance costs, cut complexity and increase standardisation, improve safety and air-situation awareness, extend ICAO compliance, enhance operator efficiency, and overcome capacity constraints. Frequentis brings together all relevant information in a digital format, integrates it for presentation to the user, layers automation on top and increases usability through intuitive interfaces – all of which helps improve situational awareness. From small cost-effective towers at regional airports up to the largest and most complex tower solutions for major hubs, the Frequentis solution portfolio spans all requirements.

## Key qualities

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|--|---|---|
| <p><b>Consolidation</b></p> <p>Combines all essential information and controls into one configurable operator-focused interface delivering enhanced situational awareness.</p> | <p><b>Scalability</b></p> <p>Meets all requirements, from modular solutions for regional airports up to comprehensive solutions for large airports.</p> | <p><b>Interoperation</b></p> <p>Standardises and simplifies information exchange between different teams and functions within an airport.</p> |
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## Scalable solution concept for all capacity needs



## Accelerated deployment

The modular nature of Frequentis tower solutions enables rapid implementation, strengthened support for an exceptionally broad range of legacy and modern airport equipment. From simple to complex requirements, and from low- to high-capacity airports, Frequentis offers tower solutions that are optimally sized for the need and that scale to whatever the future may hold.

For airports seeking a turnkey solution, Systems Interface, a member of the Frequentis Group, manages complex logistical and technical requirements, sourcing and supplying fully integrated ground-based navigation aids, ATC and meteorological systems, airfield ground lighting systems and more.

## Selected reference sites

### Aeroparque Jorge Newbery Tower, Argentina

Deployed a new ATC tower featuring ED-137-compliant VoIP voice communication and tower automation. The Frequentis solution includes voice recording and integrated backup systems, and is expected to enhance ATM operations and boost efficiency. In particular, the solution supports ICAO Aviation System Block Upgrades (ASBU) Block 0 and Block 1 modules in the airport operations performance area.

### Major international airport, Asia

Implemented Frequentis smartSTRIPS flight data handling solution to support faster decision-making and more efficient operations. Replacing a number of legacy systems, the Frequentis solution was awarded the IFATCA 2016 Technical Award. Operational feedback suggests that the solution provides a more user-friendly experience, helping to enhance safety and efficiency.

### Amsterdam Airport Schiphol, the Netherlands

Made a strategic decision to deploy a completely new tower system in accordance with the Pilot Common Project driving the SESAR deployment. Within a planned 25-year development partnership with Frequentis, the first step will be to deploy electronic flight strips. It is anticipated that this will increase the speed of tower operations and simplify decision-making.

The Frequentis tower solutions roadmap is fully aligned with the SESAR 2020 wave of ATM research and ICAO Aviation System Block Upgrades. Thus allowing airports to be confident that help will be available to tackle future challenges according to standardised best-practice approaches.



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