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## ICAO Asia/Pacific Regional Webinar Implementation of ATM Automation System in APAC Region

# Journey Towards Digitalization in ATM

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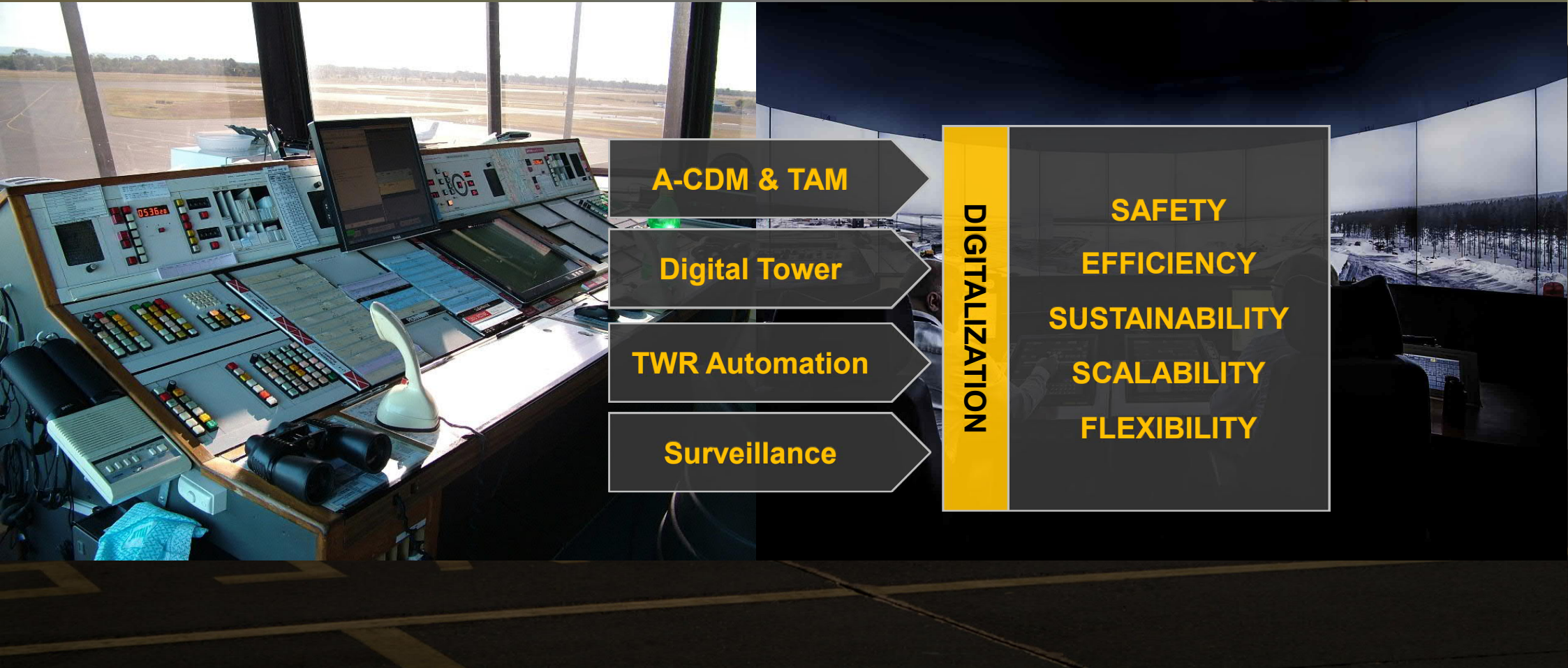
Fredrik Lindblom

Sales Director Saab ATM, Asia Pacific

*NOTE – Pictures used in this PPT are examples and might not represent any real implementations*



# Journey Towards Digitalization in ATM



**A-CDM & TAM**

**Digital Tower**

**TWR Automation**

**Surveillance**

**DIGITALIZATION**

**SAFETY**

**EFFICIENCY**

**SUSTAINABILITY**

**SCALABILITY**

**FLEXIBILITY**

## Journey Towards Digitalization in ATM

# – data sharing, integration & collaboration

Level Of Capability

- Surface Movement Radars
- Multilateration
- ADS-B
- Radar Presentation
- A-SMGCS Level 1
- Basic Digital TWR

**SITUATIONAL AWARENESS**

- A-SMGCS Level 2
- Electronic Flight Strips
- Partially Integrated Working Position

**ADVANCED SAFETY NETS & AUTOMATION**

- Routing & Guidance
- Modular CWP

**INTEGRATED CWP**

- Digitalized/Integrated TWR
- Full Integrated APOC/TAM
- A-CDM
- AMAN/DMAN/ATFM

**SEAMLESS INTEGRATION & COLLABORATIVE DECISION MAKING**

- Land & Airside Integration
  - Initial APOC

**INTEGRATION OF LAND & AIRSIDE INFO**

- Integrated AODB/RMS/FIDS/BILLING

**INTEGRATED PLANNING SYSTEMS**

- AODB
- RMS
- FIDS
- BILLING
- BAGGAGE
- ...

**SEPARATE INFORMATION SYSTEMS**

**“SWEETSPOT”**

**ANSPs**

**AIRPORT**

# Journey Towards Digitalization in ATM - Integrated Tower



**A-SMGCS**



- **WEATHER**
- **AGL**
- **VCS**
- **AIRPORT INFO**

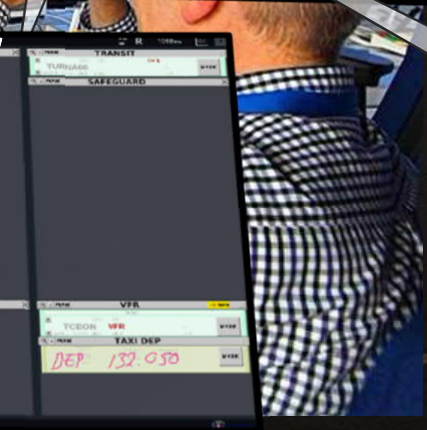


**SEAMLESS USER INTERACTION**

**EFS**



**RDP/APP**

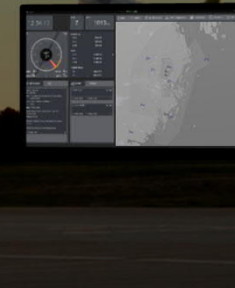


# Journey Towards Digitalization in ATM

## - Integrated Tower



ANY USER



FLEXIBLE

INTEGRATED TWR

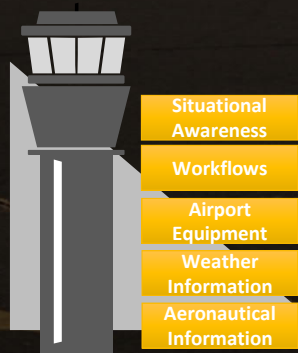
SCALABLE

ANY USE CASE



LARGE TOWER

- Situational Awareness
- Safety Nets
- Routing & Guidance
- Workflows
- Airport Equipment
- Weather Information
- Aeronautical Information
- Flow Management



MEDIUM TOWER

- Situational Awareness
- Workflows
- Airport Equipment
- Weather Information
- Aeronautical Information



SMALL TOWER

- Situational Awareness
- Airport Equipment
- Weather Information



APPROACH

- Situational Awareness
- Safety Nets
- Workflows
- Weather Information
- Aeronautical Information
- Flow Management

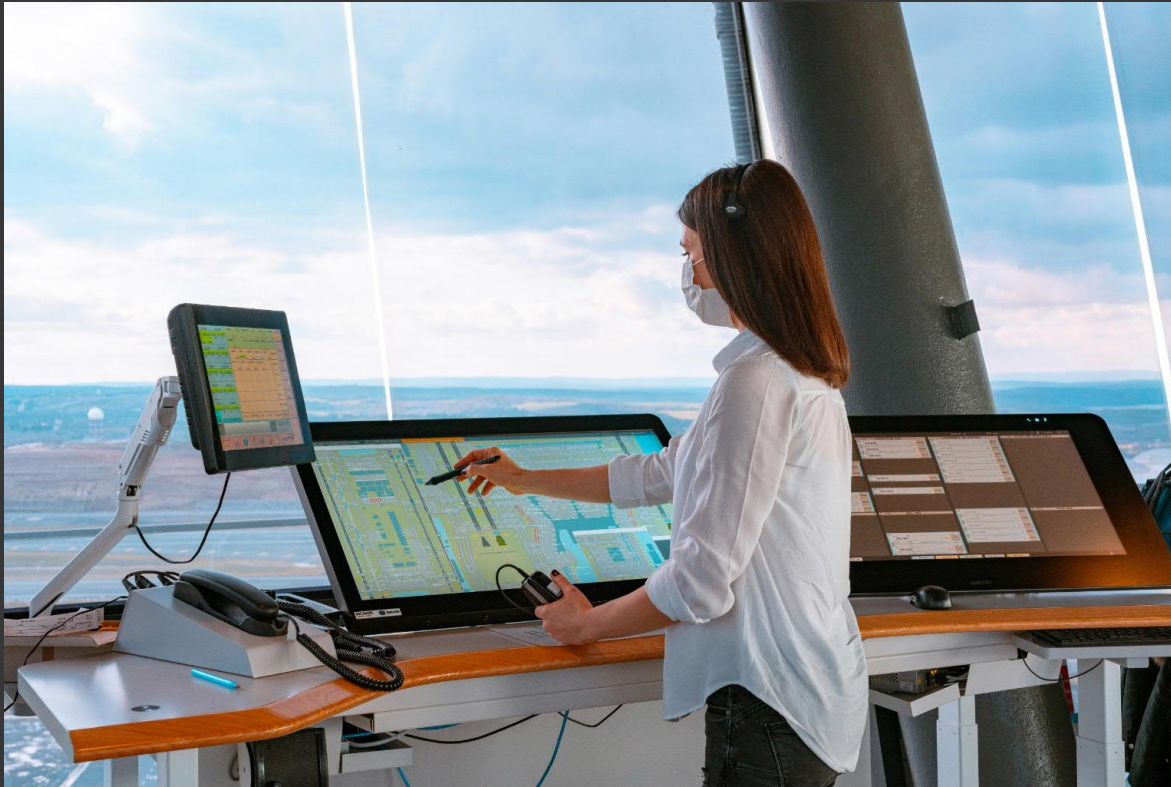
# Integrated Tower

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# Integrated Tower

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# Integrated Tower

## – Advanced Integration & Functionality



- Single HMI
- A-SMGCS SUR & Fusion
- A-SMGCS Safety Nets
- Integrated AGL Control
- A-SMGCS Routing
- A-SMGCS Guidance
- A-CDM, DMAN, AMAN & ATFM
- Video Surveillance

The screenshot displays a comprehensive HMI interface for an integrated tower. At the top, it shows 'Preset 1', 'DEF 03 ARR 21', and a pressure reading of '1030.3 hPa'. The main interface is divided into several functional panels:

- Weather and Sensor Data:** Includes a circular gauge for wind speed (130 kts) and direction (6°), along with temperature (20°C) and runway surface temperature (23°C).
- Pressure and QNH:** A digital display showing '1030 hPa'.
- Lighting and Signs:** Controls for 'Other light' (RGL, OBST, SIGNS) and 'Taxi light' (TWY 3, TWY 4, TWY 5, TWY 6, TWY 7, TWY 8, TWY 9, TWY 10, TWY 11, TWY 12, TWY 13, TWY 14, TWY 15, TWY 16, TWY 17, TWY 18, TWY 19, TWY 20, TWY 21, TWY 22, TWY 23, TWY 24, TWY 25, TWY 26, TWY 27, TWY 28, TWY 29, TWY 30, TWY 31, TWY 32, TWY 33, TWY 34, TWY 35, TWY 36, TWY 37, TWY 38, TWY 39, TWY 40, TWY 41, TWY 42, TWY 43, TWY 44, TWY 45, TWY 46, TWY 47, TWY 48, TWY 49, TWY 50, TWY 51, TWY 52, TWY 53, TWY 54, TWY 55, TWY 56, TWY 57, TWY 58, TWY 59, TWY 60, TWY 61, TWY 62, TWY 63, TWY 64, TWY 65, TWY 66, TWY 67, TWY 68, TWY 69, TWY 70, TWY 71, TWY 72, TWY 73, TWY 74, TWY 75, TWY 76, TWY 77, TWY 78, TWY 79, TWY 80, TWY 81, TWY 82, TWY 83, TWY 84, TWY 85, TWY 86, TWY 87, TWY 88, TWY 89, TWY 90, TWY 91, TWY 92, TWY 93, TWY 94, TWY 95, TWY 96, TWY 97, TWY 98, TWY 99, TWY 100, TWY 101, TWY 102, TWY 103, TWY 104, TWY 105, TWY 106, TWY 107, TWY 108, TWY 109, TWY 110, TWY 111, TWY 112, TWY 113, TWY 114, TWY 115, 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# The Digital Tower

– A new Digital Working Environment

# Journey Towards Digitalization in ATM



Data sharing, integration & collaboration



**SAAB**

# THANK YOU

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