

...OPEN UP FOR NEW APPROACHES IN TOWER CONTROL

- Changing airport layout (taxiways, runways, etc.)
- Weather dependent capacity
- ATCO workload issues
- Service shutdowns for maintenance
- Limited market opportunities because of enormous installation costs
- Increasing maintenance costs of aging infrastructure

- To enhance safety in the most vulnerable situations
- To improve situational awareness
- To have a chance for real solutions 100% tailored to your needs
- To multiply your aerodrome service cost-effectively (both remote and conventional)
- To exploit the advantages of augmented reality
- To get closer to new market opportunities

**IF YOU ARE
FAMILIAR WITH THESE
AERODROME ISSUES...**

UNIQUE RTWR
CONCEPT

COMMITTED TO
BREAKTHROUGH
INNOVATION

WHAT
WE OFFER

en.hungarocontrol.hu

TAILORED
TO YOUR NEEDS

TO FIX YOUR
ATM CHALLENGES

ON-SITE AUDIT

Problem definition

- Objective: Specify your business/operational needs and identify possible solutions fitting to your unique requirements
- Assessing local circumstances
- Applying decision tree technique
- Output: Business needs / Operational demands

2 DAYS, ON-SITE

LAB

Concept preparation workshop

- Objective: definition of the operational concept being adapted to your own airport
- Definition and preliminary analysis of potential alternatives
- Identifying the change including implementation guideline
- Defining and setting priorities
- Output: Concept of Operation including simulation layout

2-3 DAYS, BUDAPEST, HUNGARY

LIVE PICTURE WITH ADDITIONAL INFORMATION



WHAT WE OFFER

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REHEARSAL

Concept
validation
workshop

- Objective:
validation of
the operational
concept defined
for your own
airport
- Scenario
definition

- Simulation
exercises
- Output: validated
CONOPS ready to
be implemented
including Human
factors and safety
case aspects

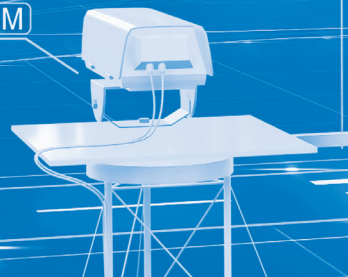
3-5 DAYS
BUDAPEST,
HUNGARY

 **HungaroControl**

TAILORED
TO YOUR NEEDS

FIXED CAMERAS

CAM



PAN-TILT ZOOM



THE PILLARS OF OUR COMPETENCE

► REMOTE TOWER EXPERIENCE

The 1st and proven rTWR concept for mid-size airports

- **Successful live trials were completed** at Budapest Airport with a fully seated shift in November 2016.
- Close to **600 movements** were managed without any restrictions.
- The demonstration proved that this kind of **technology is suitable for both contingency purposes and live traffic control.**
- **Budapest 2.0**
The project was co-financed by **SESAR JU.**

► R&D PARTNERSHIPS

Frequentis SESAR Partners

- As the ANSP partner of **Frequentis** and **Atos**, HungaroControl's support includes
- **ATM expertise, real-life operating experience** and the provision of **simulation facilities.**

Budapest 2.0 project

- International collaboration with **Pildo Labs.**
- Main contributors were **INDRA** Naviair and **SeaRidge** Technologies.

budapest.pildo.com

► CENTRE OF RESEARCH, DEVELOPMENT AND SIMULATION (CRDS)

- **Prototyping and development**
- **Validation of new technologies and solutions**
- **Validation of new operational concepts**
- **Validation of new supporting tools and devices**

- **Central Europe's largest ATC simulator** facility
- Large-scale simulations up to **34 controller** working positions and **26 pilot** working positions.
- **90% human-machine interface (HMI) similarity.**

- **Human Factors assessment capabilities**
- **Modelling, simulating and analysing unusual, emergency and extreme situations**
- **Integrating Remotely Piloted Air Vehicles in the civil airspace**

