#### 6<sup>th</sup> DATS Workshop on Digital Air Traffic Services: Workload and Safety Assessment

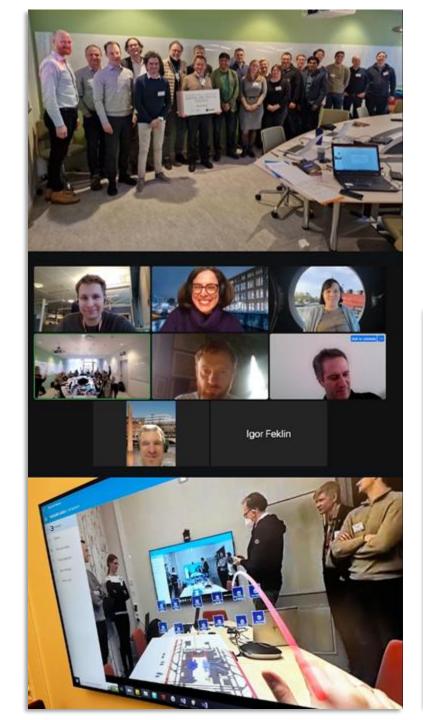




# Workload and Safety Assessment







# Workload and Safety Assessment











### Workload and Safety Assessment





#### 6<sup>th</sup> DATS Workshop on Digital Air Traffic Services: Workload and Safety Assessment

- 13:00 Billy Josefsson, Tatiana Polishchuk, Christiane Schmidt : welcome notes, round table, introduction
- 13:30 KEYNOTE Gabriele Enea, MIT Lincoln Laboratory: Integrating Weather Data into ATC Decision-Support Tools Human Factors Lessons Learned from the Development of Operational Prototypes
- 14:15 Coffee break
- 14:45 Laurie Marsman, Michelle Bont, NLR: Eye-tracking and AI: classifying fatigue and workload in ATCOs using Machine Learning
- 15:15 Boel Stefansson, LFV: Validations exercises within the IFAV3 project (increased flexibility of ATCOs deployment)
- 15:45 Lothar Meyer, LFV: Automation Surprise in Air Traffic Control: Causes, Frequency, and Safety Implications
- 16:15 Technical break
- 16:30 Helena Sjöström Falk, IFATCA: Digitalisation and AI in air traffic control: balancing innovation with the human element
- 17:00 Johan Holmér, Arlandasamordningen: Coordination for Arlanda's future development
- 17:15 Discussion, closing notes
- 19:00 Networking event at THE LAMP restaurant (sponsored by LIU)



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- 8:45 Gathering
- 9:00 Gunilla Björklund, Jan Andersson, VTI Train dispatchers' experience of workload and working environment
- 9:30 Vishwanath Bulusu, Crown Consulting, USA: Where can we fly? Reimagining Airspace with Digitization for Novel Entrants!
- 10:00 Coffee break

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- 10:30 KEYNOTE Ruth Stilwell, Aerospace Policy Solutions, LLC: Digitalization and ATC in Aviation's Info-Centric Future 11:15 - Discussions
- 11:45 Niclas Gustavsson, SAAB, closing notes: Saab Integrated Digital Tower Suite platform for accelerated digitalization 12:00 - Lunch at VY NKPG (Sponsored by SAAB)
  - Time keeping = key!
    - For the Hybrid ppl, Write questions in the Chat, Chair will let you talk
    - As always, be to the point with your question / remark

#### 19:00 – Networking event at <u>THE LAMP restaurant</u> (sponsored by LIU)

The ultimate networking and further detailed discussion about the future, life and everything. Make some new friends!







# Emerging Themes for coming DATS......

- Multiple remote tower? operational implementation
  Capacity to deal with the increase of traffic
  Difficulties with hiring new controllers

- Reconsider working conditions for controllers to keep them longer (when to retire?)
- New requirements in connection to new Al/other technologies
  Jamming/spoofing, security related
  Better use of the existing controllers
  Better use of simulators in training

- Railway: recruitment process keeping the dispatchers
  Bridging research to operations!
  Quality of information to be processed
  Human integration to the systems
  Integration of new entrants and the associated challenges
- Multimodelling other modes of transportation
   Industrial involvement in the research + feedback loop
- Expand to other areas safety-critical

# What's in the Research pipe for DATS, 3,4,5-10 yrs ahead

- Labelinteraction (less or no need for e strip)
- Workload monitoring
- Automatic Speech Recognition
- Attention Guidance supported by AI



- Weather prediction and integration in operational concept
- New sensors
- Augumented Reality where it helps
- Automation support for training and verification of competence
- Resilient Strategies for multiple information sources (RE5 X10 hybrid i/f)