



SESAR walking tours

2020 World ATM Congress



#PoweredBySESAR

WAC 2020 Madrid – Walking Tour 2 – 10. March

Demonstrating Integrated Airport Operations



Very Large Scale
Demonstrations
(VLD)



The aim is to **show the benefits** of Air Traffic Management (ATM) solutions developed in SESAR 1 **in an operational environment** and to ease their industrial deployment.



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INTEGRATED AIRPORT — OPERATIONS — PJ.28

AIRBUS

 SINTEF


DSNA


DLR

indra

Honeywell

 Air Navigation Services
of the Czech Republic

498

1233

480

931

553/1143

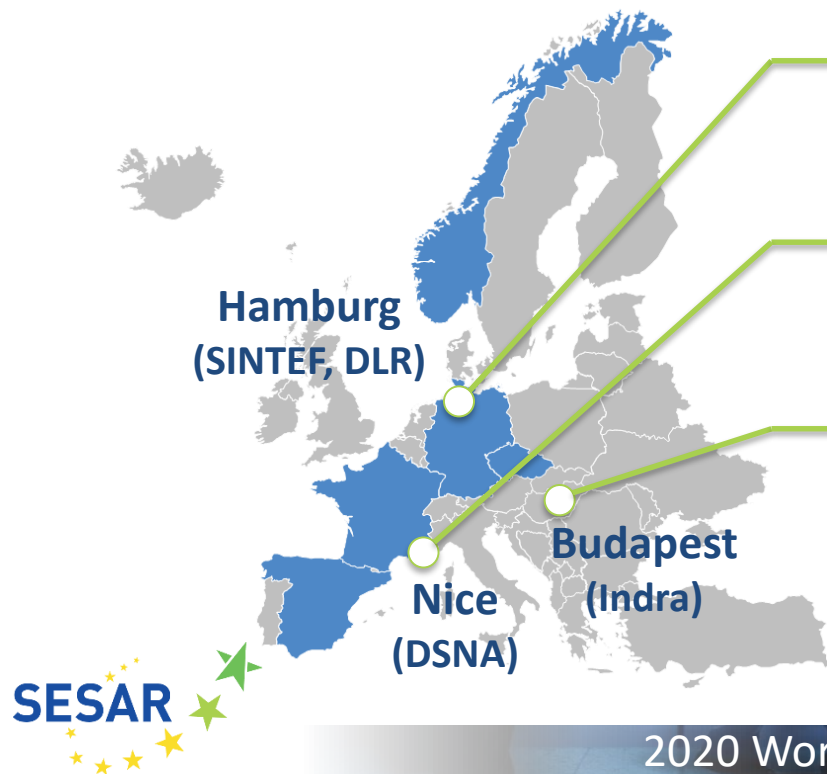
967



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Exercises



TOUR 2: TUESDAY 10/03
Safer and more efficient airport
surface operations

Onboard Traffic Alerts
(Honeywell)

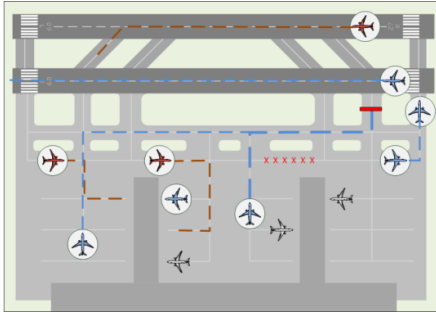
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Solutions demonstrated

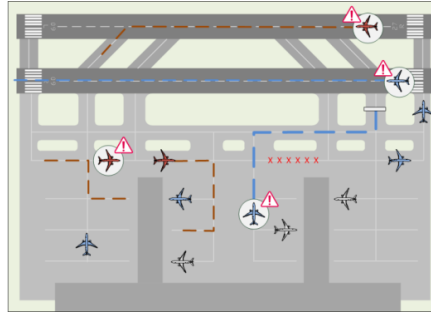
Automated Assistance to Controller for Surface Movement Planning and Routing (#22)

- Generate a digital route for each aircraft
- Route display and controller interaction



Airport Safety Nets for controllers: Conformance monitoring alerts and Conflicting ATC clearance (#02)

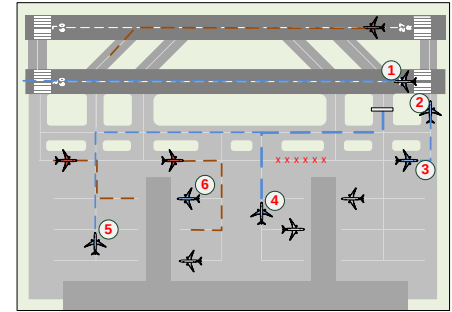
- Deviation detection
- Avoid conflicting clearances before issued



TOUR 2: TUESDAY 10/03
Safer and more efficient airport
surface operations

Departure Management integrating Surface Management Constraints (#53)

- Reduce queues at the RWY holding point
- Use calculated taxi times instead of static data



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Outcome

Challenges

- Changing Airport Layouts
- Tuning and adaptation based on local standards and procedures
- Limited time for training
- Personal preferences

Results

- Solutions are able to work with real live data
- Safety Nets very positively rated
- Calculation of accurate taxi times challenging (dependent on many parameters)

Recommendations

- Standardisation for providing the airport layout (including dynamic information)
- Include all available information for a robust route proposal function
- Check calculated taxi times against static matrices values
- Reserve time for tuning of Safety Net functions

The VLD was an important step between Validation and Deployment !
Solutions are ready to be deployed in real operational environments



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AUDIO

AIRSPACE USER SUPPORTING
DEMONSTRATIONS OF INTEGRATED
AIRPORT OPERATIONS



SINTEF



Lufthansa



DLR

Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center



1233

931



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Idea / Goal



Provide flight crews on-board with additional routing information and visualisation of surrounding traffic currently available to controllers only.



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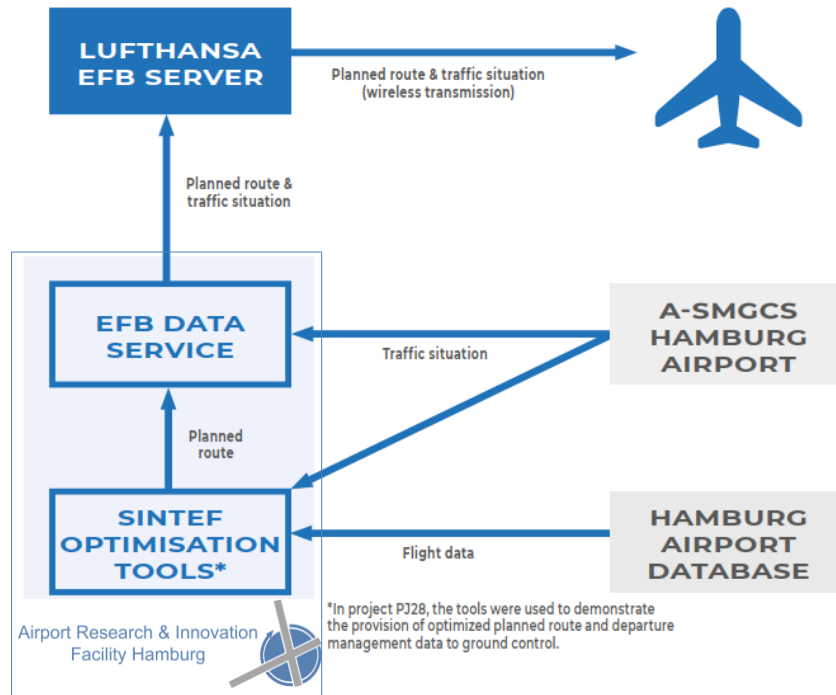


Demonstration Approach

Use the existing
Infrastructure from PJ.28

Use the demonstrated
SESAR Solutions from PJ.28

Use already implemented
data transfers for the EFB
application in LH aircraft

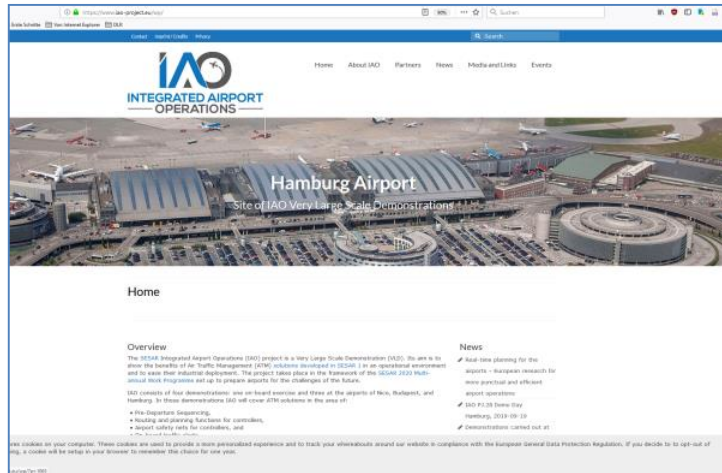


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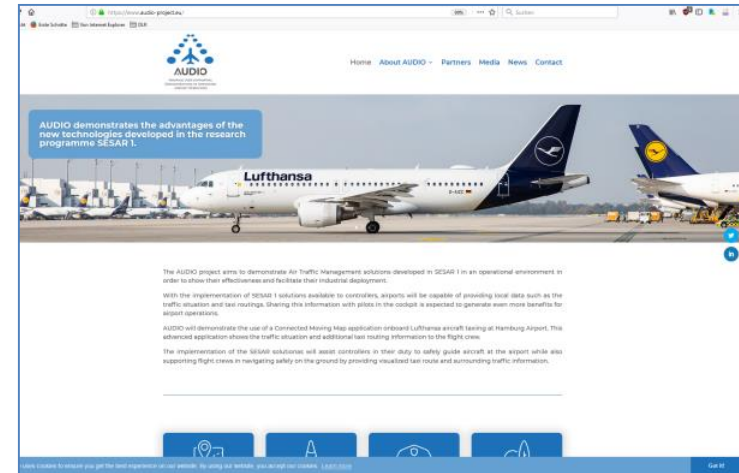
Information

www.iao-project.eu



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www.audio-project.eu



This project has received funding from the SESAR Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No [783161]



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Thank you very much
for your attention!



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