



2018  
World ATM Congress



**SESAR**  
walking  
tours



#PoweredBySESAR

**Stand 890**

# S2020 PJ28 - Integrated Airport Operations (VLD)

## WAC 2018 Madrid – Walking Tour 12 – 07. March

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COMMISSION IMPLEMENTING REGULATION (EU)  
No 716/2014 of 27 June 2014 on the establishment of the  
**Pilot Common Project** supporting the implementation  
of the European Air Traffic Management Master Plan



## ATM Functionality 2 Airport Integration and Throughput

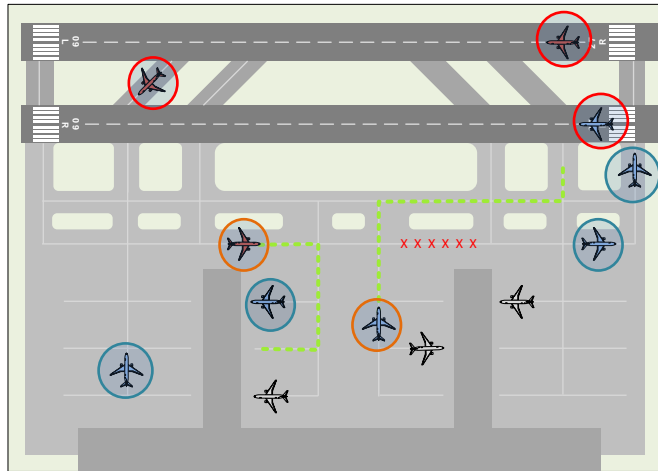


**Airport Safety Nets**

**Automated Assistance to Controller for  
Surface Movement Planning and Routing**

**Departure Management Synchronised with  
Pre-departure sequencing**

**Departure Management integrating Surface Management  
Constraints**



# Very Large Scale Demonstration...



*...plays an active role in the de-risking of the later deployment phase by demonstrating the operational and technical readiness of the **SESAR 1 solutions.***

Its 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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# Solutions to be demonstrated (Ground)

Source: SESAR Solution Catalogue Ed2 2017

<p><b>#02</b></p> 	<p>ANSP</p> <p>AO</p> <p>AU</p> <p>NM</p>	<p><b>Airport Safety Nets for controllers: conformance monitoring alerts and detection of conflicting ATC clearances</b></p>	<ul style="list-style-type: none"> <li>• Increased situational awareness</li> <li>• Improved safety in airport operations</li> <li>• Enhanced safety and situational awareness</li> </ul>
<p><b>#22</b></p> 	<p>ANSP</p> <p>AO</p> <p>AU</p> <p>NM</p>	<p><b>Automated Assistance to Controller for Surface Movement Planning and Routing</b></p>	<ul style="list-style-type: none"> <li>• Improved predictability</li> <li>• Enhanced safety</li> <li>• Increased capacity</li> <li>• Improved taxi times resulting in reduced fuel burn</li> </ul>
<p><b>#53</b></p> 	<p>ANSP</p> <p>AO</p> <p>AU</p> <p>NM</p>	<p><b>Pre-Departure Sequencing supported by Route Planning</b></p>	<ul style="list-style-type: none"> <li>• Reduced waiting time at the runway holding point</li> <li>• Increased accuracy of taxi time-out prediction and hence take-off time predictability</li> <li>• Provision of a more stable pre-departure sequence</li> </ul>

# Solutions to be demonstrated (Onboard)

Source: SESAR Solution Catalogue Ed2 2017

<p><b>#26</b></p> 	<p>ANSP</p> <p>AO</p> <p>AU</p> <p>NM</p>	<p><b>Manual Taxi Routing Function</b></p>	<ul style="list-style-type: none"> <li>• Enhanced safety</li> <li>• Improved predictability</li> <li>• Increased efficiency in surface operations</li> <li>• Reduced fuel burn and emissions</li> </ul>
<p><b>#23</b></p> 	<p>ANSP</p> <p>AO</p> <p>AU</p> <p>NM</p>	<p><b>D-TAXI service for controller-pilot datalink communications (CPDLC) application</b></p>	<ul style="list-style-type: none"> <li>• Provides reliable, repeatable message sets for non-safety critical exchanges</li> <li>• Frees up congested radio channels enhances safety at busy airports</li> <li>• Delivers instructions more effectively</li> </ul>
<p><b>PJ03b-05</b></p> 	<p>ANSP</p> <p>AO</p> <p>AU</p> <p>NM</p>	<p><b>Traffic Alerts for Pilots for Airport Operations</b></p>	<ul style="list-style-type: none"> <li>• Introducing extra on-board safety layer</li> <li>• Increasing traffic awareness and safety by providing indications and alerts of surrounding traffic</li> </ul>

# Partners / Exercises

Coordinated by:



DSNA

**Honeywell**



**indra**

**THALES**



**SINTEF**

**AIRBUS**



Air Navigation Services  
of the Czech Republic

NATMIG



**AT-One**



**B4**  
CONSORTIUM

**SESAR**



## Onb. Traffic Alerts

Sol.  
PJ03b  
-05



**HONEYWELL**

## Man. Taxi Routing

Sol.  
#26



**THALES**

## Nice

Sol.  
#02  
#22  
#53  
#23



**DSNA**

## Budapest

Sol.  
#02  
#22  
#53



**INDRA**

## Hamburg

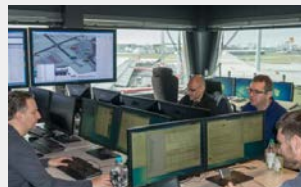
Sol.  
#02(p)  
#22  
#53



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# Example - Exercise HAM



Airport Research & Innovation  
Facility Hamburg

[www.arif-hamburg.net](http://www.arif-hamburg.net)



Data from Operational Airport Systems  
(A-SMGCS, A-CDM, AODB)

SESAR1  
Solutions

Controller

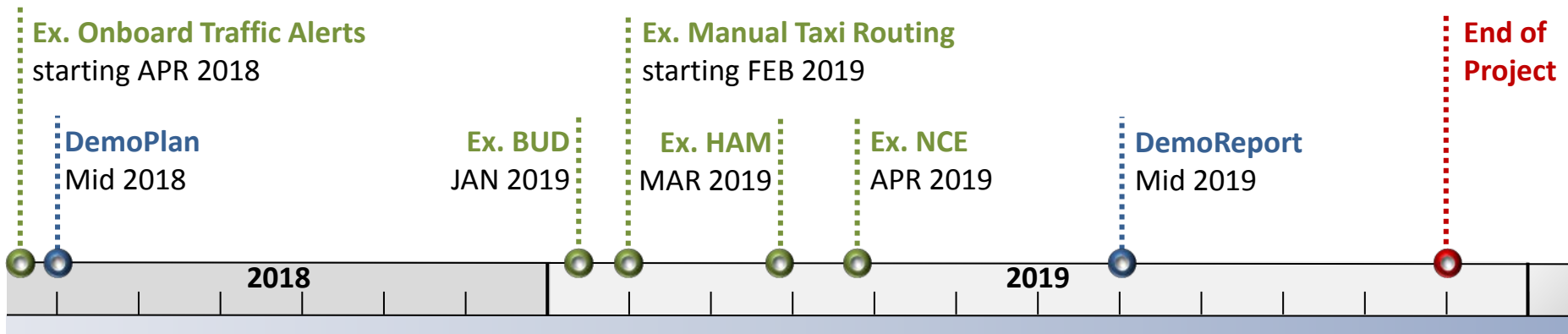
Analyses  
Evaluation

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# Planned Way Forward



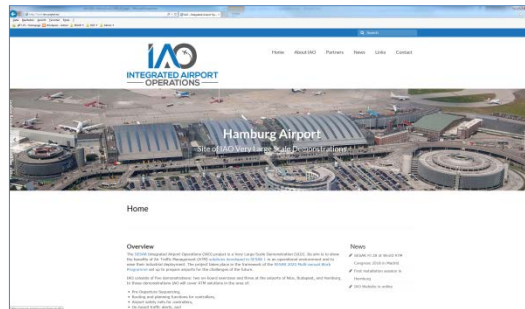
Technical Preparations  
Onsite Installations  
Exercise Execution



Data Evaluation  
Results preparation

**Open Days !**

**see the Solutions and Technical Systems in Action**



[www.iao-project.eu](http://www.iao-project.eu)



## S2020 PJ28 - Integrated Airport Operations

# Thank you very much for your attention!



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