SESAR 2020 Programme Overview

Peter Hotham
Deputy Executive Director

Brussels 22 March 2017
Where are we Today?

Building upon established results
SES performance in a global context
53 grants awarded

- Solutions delivered in SESAR 1
- Solutions developed in SESAR 1, to be delivered in SESAR 2020
- Solutions to be developed in SESAR 2020

-30% flight time variance*  
-4% air navigation service costs  
-2.3% fuel consumption and emission per flight  
+34% airspace capacity en-route  
+11% airport capacity  
+33% airspace capacity in TMA  

* Corresponding to a reduction of the standard deviation between actual and scheduled flight time from 7.4 to 6.1 minutes.
Introduction

• The SESAR 2020 Programme offers:
  • Continuity of research work started under SESAR 1
  • Opportunity to open new and innovative research
  • The time until end 2024 to run projects

• The SESAR 2020 Programme is:
  • Coordinated by an independent EU Body (EU Regulation)
  • Aligned to stakeholder needs - European ATM Master Plan
  • Described in published annual planning documents
  • Funded using mostly Horizon 2020 Research funds
  • Uniquely structured to encourage the flow of research to results
  • Continually assessed for contribution to real-world performance targets
SESAR lifecycle

To define, develop and deploy the technology that is needed to increase ATM performance and build Europe’s intelligent air transport system.
Programme Structure & Functioning

SINGLE EUROPEAN SKY

ATM MASTER PLAN
- Optimised ATM network services
- High-performing airport operations
- Advanced air traffic services
- Enabling aviation infrastructure

EXPLORATORY RESEARCH

INDUSTRIAL RESEARCH AND VALIDATION

VERY LARGE SCALE DEMOS

INCREASING MATURITY

SESAR SOLUTIONS

« DEFINITION »

« DEVELOPMENT »

« DEPLOYMENT »
From research to results

Unlike the other JU’s and JTIs, the SJU also has a unique connection with Deployment which gives an exclusive view on how R&D results will be implemented.
SESAR programme mission

Align with EU strategy, policy & stakeholder needs
Realise the ‘Pipeline’ to Innovation
Focus on the high-value results as Solutions
Generate knowledge and develop skilled people
SESAR programme vision

- Automation support
  Automation and use of data communications

- Integrated systems
  Lean and modular systems, easily upgradable and interoperable

- Integration of all vehicles
  All air vehicles fully integrated in ATM environment (incl. RPAS)

- Sharing of information
  Information shared digitally via data services

- Flight- and flow-centric operations
  Airspace users fly their preferred business and mission trajectory in a flow and network context

- Virtualisation
  Virtualisation allowing more dynamic resource allocation
SESAR Programme budget

- Around €270M awarded 2015-16 on ER, IR & VLD
- About €37M expected to be committed in 2017 on ER & VLD
- Over €200M remain to be committed in 2018-20
Call identifier: H2020-SESAR-2016-2
Deadline: 11 May 2017

1 ER Topic for a Knowledge Transfer Network (c.4M€)
5 ER Topics for Application-Oriented Research (c.6M€)
6 VLD Topics for High Performing Aviation (c.10M€)
2 VLD Topics for Global Interoperability (c.3M€)
2 VLD Topics for Safe Integration of General Aviation, Rotorcraft & Drones (c.5M€)
Why our programme?

• We are ‘open’
  • You can work with us - same conditions as other H2020 calls
• We are ‘ambitious’
  • Join us and show-case what you can do, then go further
• We ‘challenge’
  • Embrace the targets and explore how to get there
• We ‘partner’
  • Build lasting and valuable partnerships beyond ATM
• We ‘deliver’
  • Secure a reputation for delivering research that matters
Thank you very much for your attention!

SESAR 2020 Programme Overview