Single European Sky Air Traffic Management Research

Modernising European Air Traffic Management

Economic regulation
↓
Performance & charging schemes

Airspace organisation & use
↓
Network management
Air trafic flow management
Flexible use of airspace

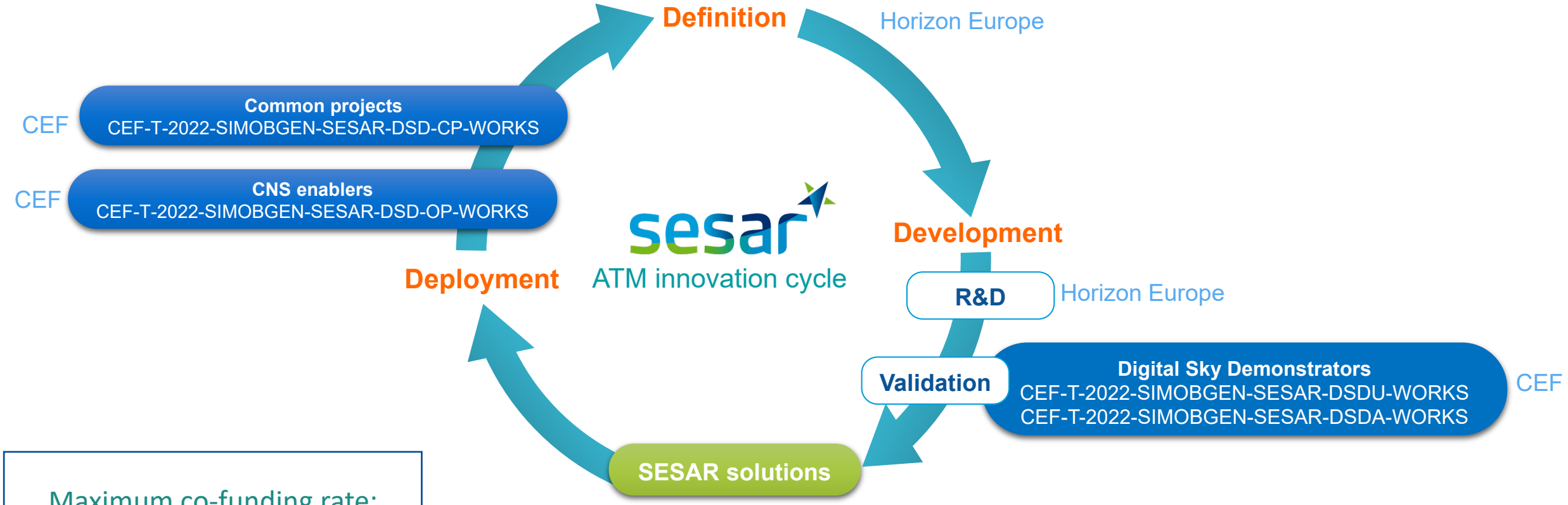
Technological innovation

European ATM Master Plan

SESAR 3 Joint Undertaking – R&D work programme

Common projects - Deployment Programme
SESAR Deployment Manager

Single European Sky Air Traffic Management Research



Maximum co-funding rate:

General envelope: 50%

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Digital Sky Demonstrators Call 2

What is a Digital Sky Demonstrator?

Digital Sky Demonstrators
CEF-T-2022-SIMOBGEN-SESAR-DSDU-WORKS
CEF-T-2022-SIMOBGEN-SESAR-DSDA-WORKS

- Demonstrate the SESAR Solutions required to deliver the **Digital European Sky**:
  - Involving ground and airborne industry (when required)
  - Executed by operational ATM actors (e.g. air navigation service providers, airports, airlines, Network Manager, etc.)
  - Executed across European airspace
  - Closely connected to standardisation and regulatory activities
- Provide a platform for “early movers”
- Accelerate market uptake
- Target maturity level: TRL 7 & 8

SUSTAINABLE & SMART
MOBILITY STRATEGY
CEF-T-2022-SIMOBGEN - **WORKS**

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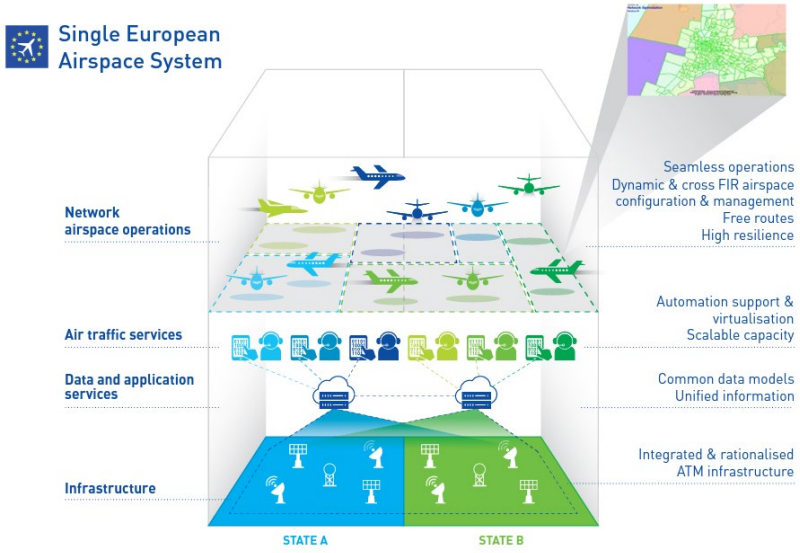
Digital Sky Demonstrators Call 2

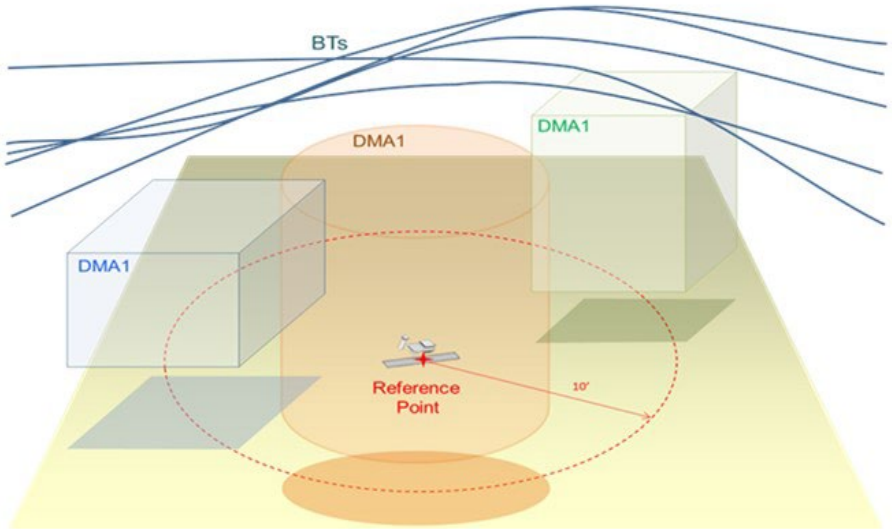
Contributing to achieving the Airspace Architecture Study Transition Plan

Digital Sky Demonstrators
CEF-T-2022-SIMOBGEN-SESAR-DSDU-WORKS
CEF-T-2022-SIMOBGEN-SESAR-DSDA-WORKS

Connected and automated ATM



Virtualisation and cyber-secure data sharing



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Digital Sky Demonstrators Call 2

Contributing to achieving the Airspace Architecture Study Transition Plan

Gradual transition towards higher levels of automation (e.g.)

→ **Digital Sky Demonstrators**
CEF-T-2022-SIMOBGEN-SESAR-DSDU-WORKS

- Improved ATC decision support tools integrating Met and aircraft derived data
- Short term demand capacity balancing optimisation of TMA and Extended TMA
- Regional airports better connected to the Network Manager
- Operating a Multilink communications infrastructure
- Next generation of air - ground datalink via LDACS (L-band-digital aeronautical communication system)

Virtual center and ATM Data Service Providers (ADSPs)

→ **Digital Sky Demonstrators**
CEF-T-2022-SIMOBGEN-SESAR-DSDA-WORKS

- Cross border delegation of ATC services based on Virtual Centre
- Integration of dynamic airspace configurations, digital integrated network management and ATC planning and Dynamic Mobile Areas

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Digital Sky Demonstrators Call 2

Call specificities

Digital Sky Demonstrators
CEF-T-2022-SIMOBGEN-SESAR-DSDU-WORKS
CEF-T-2022-SIMOBGEN-SESAR-DSDA-WORKS

- Grant duration: **36 months**
- Execution framework for technical activities as in the SESAR project handbook (available via the link provided by CINEA)

SESAR 3 JU Website
https://www.sesarju.eu/

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Other SESAR projects

Communication, Navigation & surveillance (CNS) enablers

CNS enablers
CEF-T-2022-SIMOBGEN-SESAR-DSD-OP-WORKS

Performance Based Navigation (PBN regulation)
- Approach procedures and Terminal Area Optimization
- Equipment of aircraft with SBAS/EGNOS avionics
- Rationalisation of navigation infrastructure

Datalink Services (DLS Regulation)
- Upgrades in aircraft equipped with avionics compliant with the regulation to resolve identified interoperability issues

ADS-B (SPI Regulation)
- Equipping aircraft with avionics
- Optimal combination and rationalisation of surveillance infrastructure (e.g. radars)

Other SESAR projects

Call specificities

CNS enablers
CEF-T-2022-SIMOBGEN-SESAR-DSD-OP-WORKS

Modulated funding rates for CNS projects

- **Airborne equipment:** design of airspace and publication of routes/procedures: up to **50%** the eligible costs

- **Ground infrastructure:** up to **30%** of the eligible costs
  + Extra **10%** if includes decommissioning
  + Extra **10%** if includes synchronization of airborne and ground deployments

  } Max funding rate = 50%

- Works in outermost regions: up to **70%** of the eligible costs

Common project one

Commission Implementing Regulation (EU) 2021/116

CP1 includes 6 ATM functionalities & 20 Sub-functionalities
defining 'What', 'Where', 'When' & 'Who'

- **AF1** Extended AMAN and Integrated AMA/DMAN in the high-density TMA
- **AF2** Airport Integration and Throughput
- **AF3** Flexible Airspace Management and Free Route Airspace
- **AF4** Network Collaborative Management
- **AF5** System Wide Information Management (SWIM)
- **AF6** Initial Trajectory Information Sharing

SESAR Deployment Programme
defines 'How' to deploy

25 'Families'
local implementation activities

sesar

Common project one

Commission Implementing Regulation (EU) 2021/116

Common projects
CEF-T-2022-SIMOBGEN-SESAR-DSD-CP-WORKS

Priority topics under the call

(with reference to the SESAR Deployment Programme)

AF1	Sub-AF AMAN/DMAN integration	**Family 1.2.1 - AMAN/DMAN integration**
AF2	Sub-AF airport operations plan	**Family 2.2.2 - Extended AOP**
AF3	Sub-AF free route airspace	**Family 3.2.2 - Enhanced FRA Operations**
AF4	Sub-AF Collaborative NOP Sub-AF AOP/NOP integration	**Family 4.2.2 - Initial AOP/NOP information sharing** **Family 4.4.1 - AOP/NOP integration**
AF5	Sub-AF Aeronautical Information Exchange Sub-AF Flight Information Exchange (Yellow profile)	**Family 5.3.1 - Aeronautical Information Exchange** **Family 5.6.1 - Flight Information Exchange**
AF6	◀◀ **Not eligible under this call**	

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Common project one

Call specificities

Common projects
CEF-T-2022-SIMOBGEN-SESAR-DSD-CP-WORKS

- The SESAR Deployment Programme 2022 is the reference for implementation projects
- The SESAR Deployment Manager is the coordinator of all implementation projects:

https://www.sesardeploymentmanager.eu/

- Clear Milestones based on a strict timeframe, including, where appropriate, requests for certification/approval of new infrastructure and functional systems' changes
- Failure to deliver Milestones may entail financial /administrative penalties
- 'Last chance for funding' approach
- Large projects based on cross-border / multi-stakeholder synchronisation