



## MISSION AND VISION STATEMENT

The Single European Sky ATM Research 3 (SESAR 3) Joint Undertaking (aims to accelerate through research and innovation the delivery of an inclusive, resilient and sustainable digital European sky.

- Sustainable – establishes Europe as the most efficient and environmentally friendly sky in which to fly in the world.
- Resilient – enables flexible, scalable, safe and secure air traffic management (ATM) that can withstand disruptions in the aviation system.
- Inclusive – integrates and connects all types of air vehicles and users, including civil and military, manned and unmanned.
- Accelerate – reduces time to market through focused and agile R&I, supporting faster transition to deployment through an extended innovation life cycle.

SESAR 3 JU brings together the EU, Eurocontrol, and more than 50 organisations covering the entire aviation value chain, including airports, airspace users of all categories, air navigation service providers, drone operators and service providers, the manufacturing industry and the scientific community. The partnership also works closely with regulatory and standardisation bodies, notably EASA and EUROCAE, as well as key stakeholders such as professional staff organisations, the space and military communities and global partners.

SESAR 3 JU builds upon the experience of the SESAR JU and continues its coordination role in ATM technology in the EU to further integrate the R&I capacity in Europe.

## KEY FACTS AND FIGURES

**Horizon Europe Pillar and Cluster:** Pillar II – Cluster 5: Climate, energy and mobility

**Type of partnership:** Institutionalised (Art 187 TFEU) – joint undertaking

**Total estimated budget:** EUR 1.6 bn\*

**EU commitments:** EUR 600 m

**Partners' commitments:** EUR 1 bn\*\*

**Predecessor under Horizon 2020:** SESAR Joint Undertaking

\* In addition, to meet its obligations defined in the Single Basic Act, the Digital European Sky programme will also benefit from funding for its digital sky demonstrators from the Connecting Europe Facility (in coordination with CINEA) to the value of at least EUR 200 million.

\*\* Out of which the private members will make a total contribution of at least EUR 500 m and Eurocontrol will make a total contribution of up to EUR 500 m.

## FIND OUT MORE

[www.sesarju.eu](http://www.sesarju.eu)

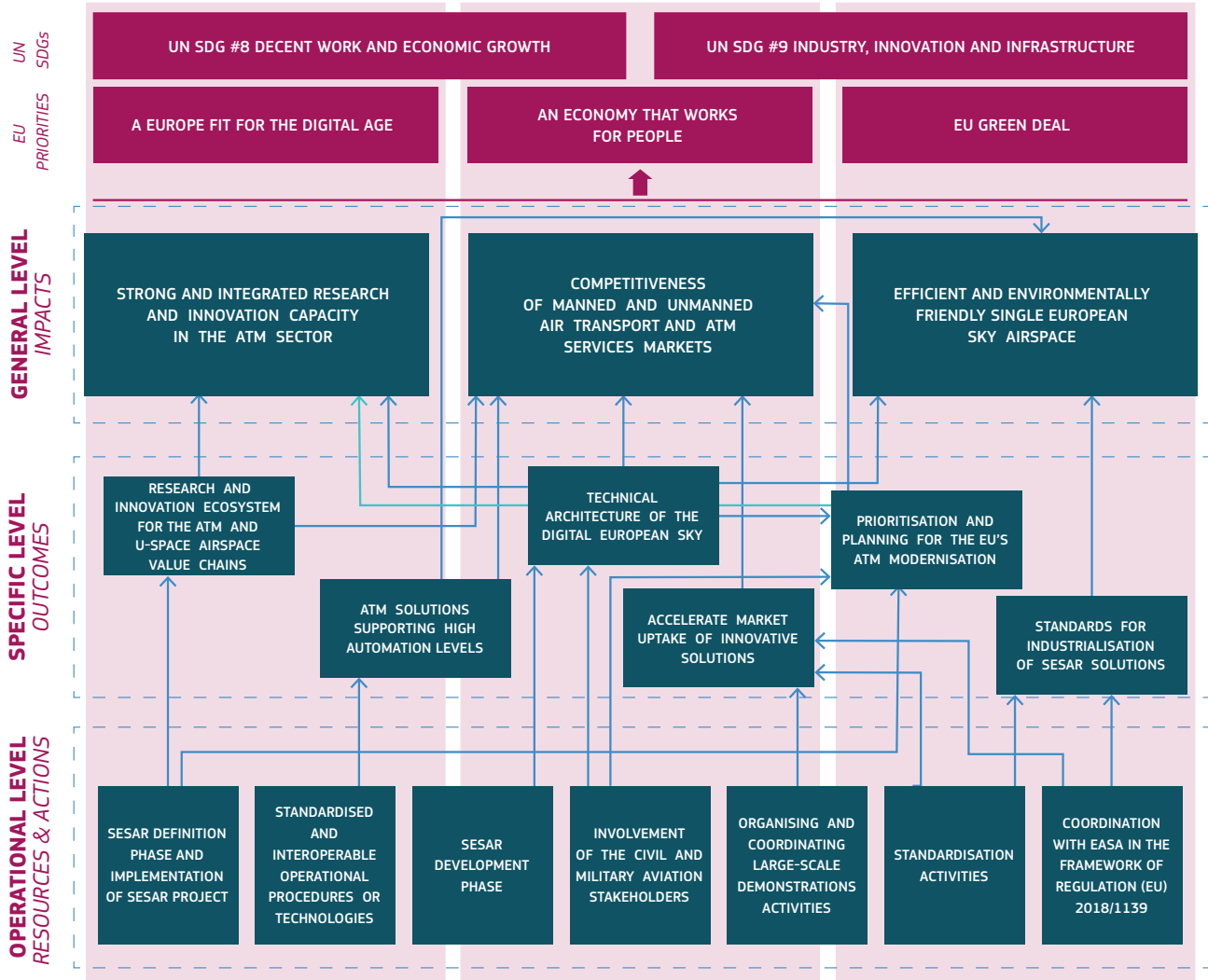
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**PARTNERSHIP SPECIFIC IMPACT PATHWAY (PSIP)**

**ACCELERATE THROUGH RESEARCH AND INNOVATION THE DELIVERY OF AN INCLUSIVE, RESILIENT AND SUSTAINABLE DIGITAL EUROPEAN SKY**





## SYNERGIES WITH OTHER EUROPEAN AND NATIONAL INITIATIVES

| KPI NAME  | UNIT OF MEASUREMENT                 | BASELINE     | TARGET 2023 | TARGET 2025 | TARGET 2027      | AMBITION >2027       |
|---|-------------------------------------|--------------|-------------|-------------|------------------|----------------------|
| <b>RESOURCES (INPUT), PROCESSES AND ACTIVITIES</b>  |                                     |              |             |             |                  |                      |
| Signed grants (Digital European Sky programme)  | #                                   | 0 (2021)     | 70          | 135         | 167              | 175                  |
| Joint calls <sup>1</sup>  | #                                   | 1 (2021)     | 2           | 2           | 2                | TBD                  |
| Complementary funding (HE, national, ERDF, CEF,...)   | €                                   | €60 m (2021) | €171 m      | n/a         | TBD <sup>2</sup> | TBD                  |
| <b>OUTCOMES</b>   |                                     |              |             |             |                  |                      |
| Solutions delivered* ready for industrialisation or deployment (Digital European Sky programme)                                   | #                                   | 0 (2021)     | 30          | 40          | 75               | 115                  |
| Solutions available for deployment against ambitions of the ATM Master Plan (SESAR 1, SESAR 2020, Digital European Sky programme) | %                                   | 37 (2019)    | 51          | 68          | 86               | 100                  |
| Solutions with supporting standards & regulations* (Digital European Sky programme)   |                                     | 0 (2021)     | TBD         | TBD         | TBD              | TBD                  |
| Share of solutions in deployment in min. 20% of EU MS <sup>3</sup> (Digital European Sky programme)                               | %                                   | 0 (2021)     | TBD         | TBD         | TBD              | TBD                  |
| <b>IMPACTS</b>  |                                     |              |             |             |                  |                      |
| Accidents (Safety)  | % reduction                         | -36.5%       |             | TBD         |                  | -51% <sup>4</sup>    |
| Capacity  | % increase (peak hourly throughput) |              |             |             |                  |                      |
| <ul style="list-style-type: none"> <li>● airports</li> <li>● TMA**</li> <li>● en route</li> </ul>                                 |                                     | 21.4%        |             | TBD         |                  | 10% <sup>5</sup>     |
|   |                                     | 27.7%        |             | TBD         |                  | 47% <sup>6</sup>     |
|   |                                     | 48.8%        |             | TBD         |                  | 49% <sup>7</sup>     |
| Punctuality (flights departing < 3min of scheduled time)  | % increase                          | 4.3%         |             | TBD         |                  | 10% <sup>8</sup>     |
| Fuel savings  | Kilograms per flight                | 147.4        |             | TBD         |                  | 250-500 <sup>9</sup> |
| ATCO productivity***  | % increase                          | 74.8%        |             | TBD         |                  | 97.7% <sup>10</sup>  |
| Technology cost reduction per flight  | % reduction                         | 30.8%        |             | TBD         |                  | 43.4% <sup>11</sup>  |

\*TRL6

\*\* Terminal Maneuvering Area

\*\*\* Air Traffic Control

1) Cumulative

2) Pending confirmation through future CEF programme's approval

From 3) to 11): Pending update of the performance ambition of the ATM Master Plan

## SYNERGIES WITH OTHER EUROPEAN AND NATIONAL INITIATIVES

### MAXIMISING SYNERGIES ACROSS HORIZON EUROPE

SESAR 3 JU will put in place measures to maximise its impact using all possible synergies with other European Partnerships and related national activities. Beyond the involvement in the overall coordination of Horizon Europe, SESAR 3 JU will, in particular, focus on capturing synergies across the following two clusters.

**Synergies within the Climate, energy and mobility cluster:** in this thread, SESAR 3 JU will reach out to other mobility JUs with the aim of building consolidated roadmaps and action plans for climate neutral mobility solutions. This will also address common sectorial issues such as multimodality transport, automated vehicles and the decarbonisation of the sector. In particular, a specific coordination with the European Partnership for Clean Aviation is believed to be essential for the aviation sector.

**Synergies with the Digital, industry and space cluster:** considering that the digital transformation of aviation is at the core of the SESAR 3 JU's goals, it strongly echoes the ambition of the digital, industry and space cluster. It is in many ways complementing this cluster by addressing aviation-critical applications. Therefore, it is essential to put in place synergies with all relevant digital initiatives outside of the climate, energy and mobility cluster. For example AI, cybersecurity and high-performance computing are cross-sectorial issues that require deep coordination, especially for the development of use cases and the application of European standards. In addition, the partnership will contribute to the achievement of European space policy. According to the European ATM Master Plan, satellite CNS services are considered essential enablers of the digital European sky. Therefore, the partnership will build on the achievements of SESAR 2020 in the space domain to further engage space actors in the innovation ecosystem.

### COHERENCE AND SYNERGIES IN RELATION TO MAJOR NATIONAL (SECTORIAL) POLICIES, PROGRAMMES AND ACTIVITIES

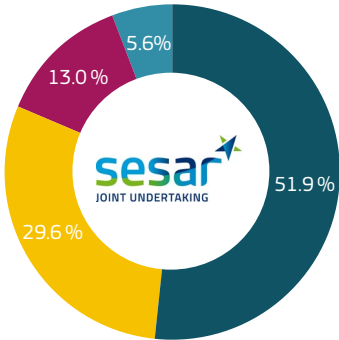
To help repair the economic and social damage caused by the COVID-19 pandemic to the aviation sector, SESAR 3 JU will exploit all possible synergies in relation to major national (sectorial) policies, programmes and activities (such as those that will be part of the EU stimulus package, the Recovery and Resilience Facility, to ensure maximum levels of complementarity and impact). It will aim to leverage local investments and complement R&I needs by looking at the wider European goals and applications.

SESAR 3 JU will explore opportunities for coordination with national and regional initiatives and consult widely through the newly established states' representatives group.



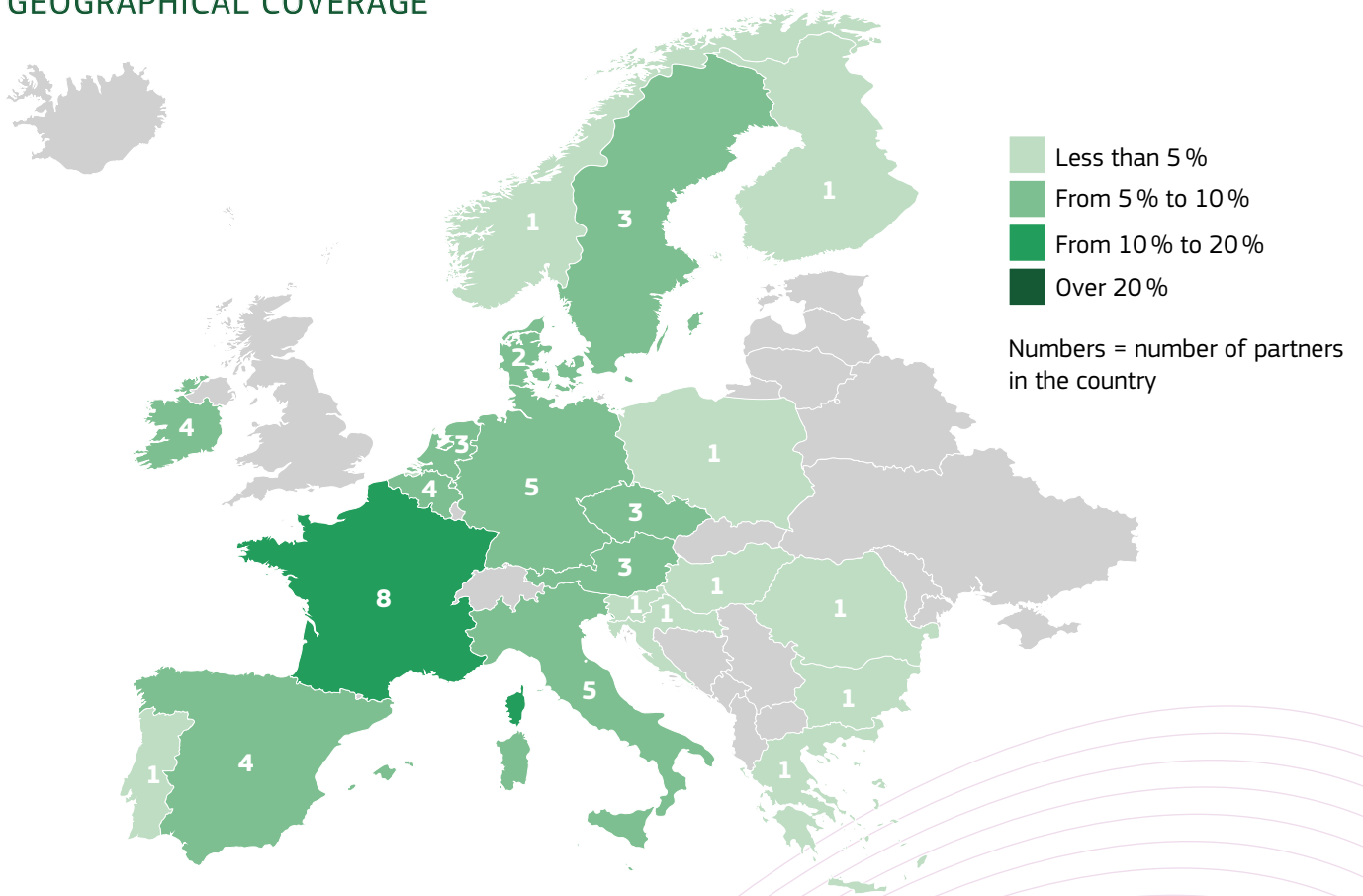
**OVERVIEW OF MEMBERS**

**MEMBERS PER TYPE**



- INDUSTRY** Other Industrial and/or profit Private organisation
- RESEARCH** Public research organisation (including international research organisation as well as private research organisation controlled by a public authority)
- PUBLIC** Research funders, ministries, regions, cities
- SMEs**

**GEOGRAPHICAL COVERAGE**



Total number of partners: 54