3.1.1. **Single European Sky – SESAR**

The objective in the area is to support the timely and efficient implementation of the Single European Sky (SES), in particular the deployment of SESAR (Single European Sky ATM Research and Development).

The achievement of this objective requires improving the performance of air traffic management (ATM) in Europe by modernising and harmonising ATM systems, synchronising the deployment of essential ATM functionalities, enhancing civil-military interoperability, reducing fragmentation and consolidating the provision of air navigation services.

The SESAR project represents the technological pillar of the Single European Sky. It aims to modernise ATM in Europe and to provide the Union with a high performing ATM infrastructure that will enable the safe, efficient and environmentally friendly operation and development of air transport.

The proposed Actions under this objective shall include works under one of the following 2 categories:

1. **Common Projects**

This category includes civil and military Implementation projects deploying ATM functionalities¹ identified in Common Projects², in accordance with the Deployment Programme³.

In order to optimise the impact of Union funding on the implementation of the Deployment Programme, the Commission may focus on specific ATM functionalities or parts of them, in particular:

(a) Implementation projects that support the implementation of the following families identified in the deployment programme⁴:

- 1.1.2: AMAN (Arrival Manager) upgrade to include extended Horizon function;
- 1.2.3: RNP1 (Required Navigation Performance) operations in high density TMAs (Terminal Control Areas) ground capabilities;
- 2.2.1: A-SMGCS Levels 1 and 2 (Advanced Surface Movement Guidance and Control System);
- 2.4.1: A-SMGCS routing and planning functions;
- 2.5.1: Airport safety nets associated with A-SMGCS (Level 2);
- 2.5.2: Aircraft and vehicle systems contributing to airport safety nets;
- 3.2.1: Upgrade of AATM systems (NM, ANSPs, AUs) to support Direct Routings (DCTs) and Free Routing Airspace (FRA);
- 3.2.4: Implement free route airspace;

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¹ Commission Implementing Regulation (EU) No 409/2013 of 3 May 2013 on the definition of common projects, the establishment of governance and the identification of incentives supporting the implementation of the European Air Traffic Management Master Plan (OJ L 123, 4.5.2013, p. 1).


⁴ The Deployment Programme can be found at: [http://ec.europa.eu/transport/modes/air/nessar/deployment_en](http://ec.europa.eu/transport/modes/air/nessar/deployment_en)
- 4.2.2: Interactive rolling Network Operations Plan (NOP)
- 5.1.2: New PENS – Future Pan-European Network Service;
- 5.1.3: Common SWIM (System Wide Information Management) infrastructure components.

(b) Implementation projects aiming to implement datalink capability in support to AF6-Initial Trajectory Information Sharing. These projects shall be implemented in accordance with the recovery plan² developed by the SESAR Deployment Manager and shall respect the regulatory deadlines prescribed by the Commission Implementing Regulation (EU) No 2015/310. Costs incurred after the deadlines for the implementation of these projects will not be funded.

Implementation projects presented under the above-mentioned recovery plan must follow the planning proposed in the applications. The specific grant agreements awarded for the implementation projects under the recovery plan must include milestones for the assessment of the projects' progress. Major deviations from the approved planning or poor progress of a project will trigger the relevant provisions on suspension and termination applicable to the specific grant agreements.

The indicative financial envelope that is made available for the implementation of the recovery plan cannot exceed 30% of the budget allocated to the Common Projects under this call.

Grants for projects in this category shall be awarded through Specific Grant Agreements established under the SESAR Deployment Framework Partnership Agreement concluded between the Deployment Manager⁶ and the implementing partners, on the one hand, and the Commission on the other hand⁷. The Deployment Manager is to act as coordinator in each of these projects. Applicants who are awarded a grant under this call and are not partners in the SESAR Deployment Framework Partnership shall be required to join the SESAR Deployment Framework Partnership, as partners, by signing the Framework Partnership Agreement before being able to sign the Specific Grant Agreements covering their projects.

Applicants under this category must coordinate their applications with the Deployment Manager who shall perform a screening of these applications to assess their relevance to this category. For this purpose the above mentioned applicants shall provide the Deployment Manager with all the necessary information that it requires to ensure coherence and effective coordination of the projects in accordance with the Deployment Programme. Based on this assessment, the Deployment Manager may advise the applicants to revise their applications or to submit them under the "Other projects" category (See section 2 below).

The amount of financial assistance to be granted to the actions selected may be modulated on the basis of a cost benefit analysis of the Common projects or the cost-effectiveness analysis of the project proposals.

The model Specific Grant Agreement for SESAR Implementation projects and the model SESAR Framework Partnership Agreement shall be published with the call for proposals.

Applicants for Actions under this category shall provide evidence that national civil-military

⁵ http://ec.europa.eu/transport/modes/air/esar/deployment_en
⁶ http://www.sesardeploymentmanager.eu/contact/
coordination has taken place. This has to be validated by the Member States, which need also to provide their agreement on the proposals in accordance with Article 9(1) of Regulation (EU) No 1316/2013.

Furthermore, Member States shall verify that the works projects proposed under this category are consistent with their adopted performance plans referred to in Commission Implementing Regulation (EU) 390/2013.

2. Other projects

This category comprises other projects not included in Common Projects and not falling under the competence of the Deployment Manager that contribute to the implementation of the SES by promoting the optimal provision of air navigation services and seamless functioning of the European ATM system.

In this category, priority shall be given, to proposals for works Actions that:

(a) deploy new technologies and best practices\(^8\) aiming to implement or support interoperable and harmonised ATM systems and equipment (e.g. primarily focusing on meeting the requirements of existing implementing rules and/or their related means of compliance under Regulation (EC) No 552/2004 of the European Parliament and of the Council\(^9\));

(b) aim to specify and deploy new generation of flight and radar data processing systems based on European standards, open source and modular systems;

(c) address the optimal provision of air navigation services, mainly in the context of the functional airspace blocks (FAB) and in particular to those Actions concerning:

- commonality of technical systems or at least of subsystems and tools;
- infrastructure rationalisation such as replacement of legacy or overlapping secondary surveillance radars with lower cost technology solutions;
- Introduction of Performance Base Navigation (PBN) procedures and ground and airborne equipment, in particular those related to the use of satellite technologies, together with a planned reduction in legacy infrastructure;
- airspace projects culminating in the cross-border implementation of Free Routeing across the FAB;
- common Air Traffic Flow Management (ATFM) Flow Management Position (FMP), starting with joint operation of FMPs, joint ATFM;
- cross-border operation of Air Traffic Control (ATC) within a FAB;
- optimal vertical profiles (climb as well as descent) at airports and in TMAs (Terminal Control Areas);
- airspace planning carried out (cooperatively) for the whole FAB region;
- removal of national boundaries in upper airspace for air traffic control purposes;
- dynamic sectors spanning across national borders;

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\(^8\) Best in class technologies and practices: technologies and operational practices that are demonstrated to be best in class from cost-efficiency and performance perspective when compared with other technologies and practices applied in similar environments.

• sector boundaries put in low-interaction areas;
• cross-border sectorisation.

(d) aim to deploy or support the deployment of ATM functionalities defined in the European ATM Master Plan and the deployment baseline that are not included in Common Projects. Priority shall be given to projects addressing those ATM functionalities that are defined as “essential” in the European ATM Master Plan or that constitute SESAR solutions10.

In order to optimise the impact of Union funding on the implementation of other projects, the Commission may focus on some of the above-mentioned priorities or parts thereof, in particular:

(a) Actions that support early implementation of instrument approaches utilising Performance Based Navigation (PBN), with a corresponding commitment to phase-out legacy navigation infrastructure, as well as airborne infrastructure that support the use of satellite based augmentation system (SBAS), in particular the European Geostationary Navigation Overlay Service (EGNOS). With regard to the ground infrastructure, all airports that do not fall under Part 1.2 of the Annex to Commission Implementing Regulation (EU) No 716/2014 can be funded under this call. The proposed projects must achieve at least LPV-200 approach minima by the end of 2019 and include a plan through which existing legacy equipment – if any - used for approaches to those runways is decommissioned. The grant will be limited to a maximum of €25,000 per approach. Applications covering several runways and/or airports will be given priority.

(b) Actions that support equipage with 8.33 KHz radios in existing aircraft fleet. Regulations (EC) No 1265/2007 and (EU) No 1079/2012 require the conversion of at least one radio per aircraft to have to be capable of operating on the 8.33 KHz channel spacing. An amount of €10 million is targeted at proposals for conversions of existing aircraft fleet that currently do not have radios with 8.33 KHz channel spacing. The grant will be limited to 20% of the total cost of radio conversion, including both equipment procurement and installation costs.

The Actions proposed under this category must not duplicate or oppose the implementation of Common Projects or the activities of the SESAR Joint Undertaking and must contribute to meet the performance targets in the context of the performance scheme.

For both categories mentioned above:
- Priority shall be given to proposals for Actions or parts of Actions that: most contribute to ATM performance; or are organised at FAB level or promoting Union-wide, inter-FAB or civil-military coordination, or address effective change management; or that create new employment opportunities.
- Indicatively, 80% of the funding available under Priority "Single European Sky - SESAR" shall be dedicated to projects selected under the Common Projects category (Category 1). However, the final allocation of funding may be adjusted between Common Projects and Other Projects (Category 2) depending on the actual funding needs of the selected proposals, while giving priority to the implementation of Common Projects.

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10 SESAR Solutions are operational and technological improvements developed by SESAR Joint Undertaking members and partners which aim to contribute to the modernisation of the European and global ATM system (http://www.sesarju.eu/solutions).
Funding under this call shall not be granted for Actions or parts of Actions addressing obligations under Union Law, in particular relating to the SES, whose deadline for implementation has expired by the date on which this call is published. In any case, costs for such actions shall not be eligible after the above-mentioned deadline for implementation.