INFORMATION DAY

SESAR 3 Digital European Sky Calls

HORIZON-SESAR-2025-DES-ER-03 Exploratory research
HORIZON-SESAR-2025-DES-IR-02 Industrial research

Join at
slido.com
#1604 954

20 February 2025

This session will be recorded (Regulation 2018/1725)

Co-funded by the European Union

Before starting the meeting…

✓ The Info day is **recorded**

✓ The **recording and presentations will be published** on SESAR JU website in the days following the event

✓ **Questions** can be asked via **Sli.do**

✓ **Participants will be muted** during the speakers' presentations

✓ An **FAQs document on 2025 DES Calls** will be published in the FTP in the coming weeks

Submit your question:

Join at
slido.com
#1604 954

INFORMATION DAY
Digital European Sky
2025 Calls for Proposals

EXPLORATORY RESEARCH 03 and INDUSTRIAL RESEARCH 02

20 February 2025, 9:30 – 12:30

09:30 **Welcome**
Andreas Boschen, Executive Director, SESAR JU

09:40 **Digital European Sky (DES) programme overview**
Benoit Fonck, Chief Programme, SESAR JU

10:00 **DES Exploratory Research – third call**
Olivia Nunez, Head of Technology and Master Planning, SESAR JU
Alfredo Gomez – Strategic Planning and Monitoring Senior Officer, SESAR JU

10:20 **DES Industrial Research – second call**
Olivia Nunez, Head of Technology and Master Planning
Alfredo Gomez – Strategic Planning and Monitoring Senior Officer, SESAR JU

10:40 **Programme management**
Olivier Mongenie, Head of Operations Quality Control, SESAR JU
Luca Capoferri, ATM/ANS Expert, EASA

11:00 **Communication, Dissemination & Exploitation**
Olivier Mongenie, Head of Operations Quality Control, SESAR JU

11:10 **Horizon Europe Call evaluation and procedures**
Emanuela Flora, Head of Call Coordination and Grant Management, SESAR JU

11:30 **Legal and financial aspects of grants – key messages**
Emanuela Flora, Head of Call Coordination and Grant Management, SESAR JU

11:50 **Tips and tricks for proposal submission**
Emanuela Flora, Head of Call Coordination and Grant Management, SESAR JU

12:00 **Questions and answers**

12:30 **ENDS**

SESAR 3 DIGITAL EUROPEAN SKY

WELCOME

Andreas Boschen

SESAR 3 DIGITAL EUROPEAN SKY PROGRAMME OVERVIEW

Benoit Fonck

The current context - challenges

CLIMATE TAKES CENTRE STAGE

Key EU goal: Achieve net-zero emissions by 2050 through innovative solutions.

Destination 2050 estimates:

€441 bn to deliver sustainable fuels

€820 bn value chain to be generated by for electric and hydrogen aircraft

COMPLETELY NEW SECURITY CONTEXT

Geopolitical shifts
New threats require deeper collaboration

New focus: increase the security posture of ATM

Less available airspace due to the Ukraine war

Increase in cyber incidents from 2020 to 2021

20%

70%

RETURN OF CAPACITY AND SCALABILITY CHALLENGES, PUSH FOR EU COMPETITIVENESS

Vision: make Europe the most efficient and environmentally friendly flying sky in the world

All flights will operate to maximise aircraft capabilities, **reducing aviation's overall climate impact** (CO2 and non-CO2), to reach the lowest environmental footprint possible.

Air traffic management processes and services will **optimize each flight trajectory.** This optimization **is systematic, continuous and extremely precise.**

The continuous optimisation will be the new norm thanks to a **new service delivery model** and **high connectivity** in a secure manner**.** This will ensure **optimize and efficient dual** (civil and military) **use of resources.**

For certain phases of flight, **the system will be fully automated and able to handle both nominal and non-nominal situations.**

In this new environment, **the role of the human has significantly evolved,** performing only the tasks that are too complex for automation to handle. **Voice communication** is no longer primary way of communicating.

Strategic deployment objectives

SDO 1
ALERTS FOR REDUCTION OF COLLISION RISKS ON TAXIWAYS AND RUNWAYS

SDO 2
OPTIMISING AIRPORT AND TMA ENVIRONMENTAL FOOTPRINT

SDO 3
DYNAMIC AIRSPACE CONFIGURATION

SDO 4
INCREASED AUTOMATION SUPPORT

SDO 5
TRANSFORMATION TO TRAJECTORY-BASED OPERATIONS (TBO)

SDO 6
VIRTUALISATION OF OPERATIONS

SDO 7
TRANSITION TOWARDS HIGH PERFORMANCE OF AIR-GROUND CONNECTIVITY (MULTILINK)

SDO 8
SERVICE-ORIENTED DELIVERY MODEL (DATA-DRIVEN AND CLOUD-BASED)

SDO 9
CNS OPTIMISATION, MODERNISATION AND RESILIENCE

SDO 10
ENABLE INNOVATIVE AIR MOBILITY (IAM) AND DRONE OPERATIONS

Complementary to ICAO Global Air Navigation Plan (GANP)

Strategic development priorities – <u>Scope of the calls</u>

sesar
JOINT UNDERTAKING

Exploratory research

FUNDAMENTAL RESEARCH

FR-1 ATM impact on climate change

FR-2 Digital flight rules

FR-3 Investigate Quantum sensing and computing applied to ATM

APPLIED RESEARCH

AR-1 Research to help shape the future regulatory framework for a Digital European Sky

AR-2 *Definition of advanced U4 U-space full services*

AR-3 Integration of the next generation aircraft for zero/low emission aviation

Industrial research

IR-1 Transformation to trajectory-based operations

IR-2 Transition towards high performance of air-ground connectivity (multilink)

IR-3 Future en-route and TMA ground platforms

IR-4 Future airport platform

IR-5 Autonomy and digital assistants for the flight deck

IR-6 U3 U-space advanced services, IAM and vertiports

New exploratory and industrial research calls

SESAR JU launches
EUR 254 million
in research calls to shape the future of European air traffic management

EUROPEAN PARTNERSHIP
Co-funded by the European Union

sesar
JOINT UNDERTAKING

EXPLORATORY RESEARCH CALL

Fundamental research (WA1)

Activities advancing concepts and technologies from TRL0 to TRL1

EUR 10 M

Applied research (WA2)

Bridging fundamental research and higher maturity industrial research (TRL1 to TRL2)

EUR 14 M

INDUSTRIAL RESEARCH CALL

Industrial research

Focuses on advancing significantly the six development priorities defined in the European ATM Master Plan for industrial research
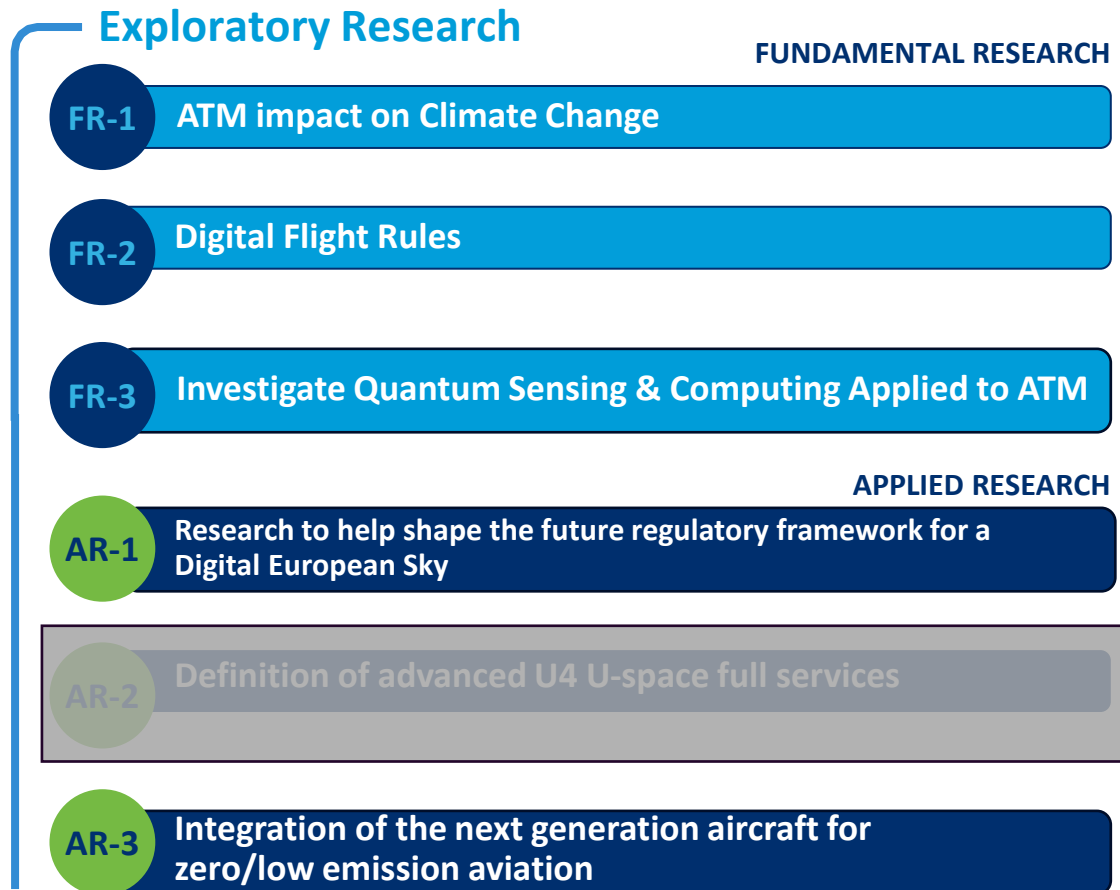
EUR 230 M

TOTAL AMOUNT = EUR 254 M

SESAR 3 DIGITAL EUROPEAN SKY
DES EXPLORATORY RESEARCH ER-03

Olivia Nunez
Alfredo Gomez de Segura

Reference : ATM MP development priorities for Exploratory Research

Exploratory Research

FUNDAMENTAL RESEARCH

FR-1 ATM impact on Climate Change

FR-2 Digital Flight Rules

FR-3 Investigate Quantum Sensing & Computing Applied to ATM

APPLIED RESEARCH

AR-1 Research to help shape the future regulatory framework for a Digital European Sky

AR-2 Definition of advanced U4 U-space full services

AR-3 Integration of the next generation aircraft for zero/low emission aviation

- Call specifications cover ATM Master Plan development priorities for fundamental research (WA1) and applied research (WA2).

- There is a topic per development priority:
  - Except AR-2 "definition of U4 U-space services", not covered by ER-03.

- For fundamental research, a generic WA1-4 covers research elements not directly linked to FR-1, FR-2 or FR-3:
  - Proposals shall justify the innovation / breakthrough potential, alignment to MP vision and how the expected outcomes will contribute to one or more of the **five key transformation levers** described in the ATM Master Plan.

GENERAL PRINCIPLES

- ❑ Proposal shall justify the link between the proposed research and the ATM MP development priorities for Exploratory Research.

- ❑ Proposals shall demonstrate their transformative potential for ATM and be focused on embryonic/emerging technologies or areas of knowledge.

- ❑ About the R&I needs listed under scope in each of the topics:

  - ❑ Proposals are **not expected to address ALL R&I needs** listed under a topic.

  - ❑ R&I needs are proposed as an illustration, but the list is not exhaustive and hence is **not prescriptive:** proposals can address R&I needs that are not listed in the call specifications so long as the link to the ATM MP ER development priorities is justified.

GENERAL PRINCIPLES

❏ Proposals shall describe with adequate rationale how the proposed scope is expected to contribute to one or more of the following:

  ❏ **Increased performance of the ATM system** in one of the areas addressed in the Chapter 7 of the MP:

    ❏ Airspace capacity

    ❏ Airport capacity

    ❏ Environment

    ❏ Passenger time saving/departure punctuality

    ❏ Cost-efficiency

  ❏ ATM/UTM **safety and/or resilience**

  ❏ Support to the evolution towards the **new service delivery model**, including support to the development of the new certification framework.

GENERAL PRINCIPLES – Automation levels

FIGURE 21: LEVELS OF AUTOMATION TAXONOMY AND CORRESPONDENCE TO EASA AI LEVELS

Proposals shall describe (with adequate rationale) how the proposed SESAR solution(s) will **contribute to achieve automation level 4** within a pre-defined scope and be able to revert to automation level 3 or lower outside of this scope (when a task becomes too complex for automation to handle), **or how the proposed SESAR solution(s) will effectively operate in such an environment**.

❑ Proposals not addressing the increase of the automation level must be compatible with a highly automated environment.

GENERAL PRINCIPLES

❑ The projects awarded in this call should follow the EU open science principles, making their results and research databases publicly available. In case there are deliverables planned as confidential/ restricted access in the proposal, a justification must be provided (for example based on the need to protect intellectual property rights) and complementary measures must be planned to ensure an adequate level of dissemination, e.g. scientific publications with GOLD access level, additional public deliverables containing the non-sensitive content, etc.

❑ ER-01 and ER-02 projects are already in execution: proposals shall take care of avoiding duplication in terms of scope with research elements under ER-01/ER-02 or justify the complementarity if this happens.

❑ The links to the projects are below:

▪ ER-01

▪ ER-02

GENERAL PRINCIPLES

❑ The applicable target maturity levels for exploratory research are TRL1 (fundamental research) and TRL2 (applied research).

❑ Proposals can target higher maturity levels than those initially expected for fundamental research (TRL1) or applied research (TRL2). However, following the project handbook principles, the expected type of deliverables and content are driven by the target maturity level and not by the type of project or call. Intermediate TRLs (i.e., TRL3, TRL5) are not applicable.

❑ The type of deliverables and content that are required as evidence for successfully achieving the target maturity level depends on the type of SESAR solution (ATM solution / Technological solution).

❑ Proposals shall align to the requirements included in the SESAR project handbook. Deviations are possible when justified (e.g., the expected technical deliverables per TRL in the project handbook may not be fully applicable due to the nature and/or objectives of the research).

WA1-1 ATM impact on environment and climate change

- Objective is to assess the impact of aviation on environment and climate change: mechanisms involved, obtain accurate scientific data, etc. for developing evidence-based optimisation algorithms and rules aimed at reducing the environmental impact.

- Proposals shall consider on-going work under the "Aviation Non-CO2 Expert Network (ANCEN)" and when relevant work performed under Clean Aviation Programme.

- Expertise on atmospheric physics and climate change is required

WA1-2 Digital flight rules

❑ Introduction of a new type of flight rules that leverage advanced technologies to complement the current VFR/IFR paradigm:

  ❑ Making IFR in uncontrolled airspace safer (IFR aircraft will be able to self-separate in uncontrolled airspace).

  ❑ Making VFR safer in all types of airspace (support to out-the window)

❑ Digital flight rules are anticipated to make use of DAA to enable uncrewed machines to operate safely VFR or IFR amongst crewed aviation.

❑ Digital flight rules will also be applicable to crewed aviation.

❑ Research must consider impact on ICAO documentation as described in the call specification.

❑ **The primary objective is not the development of the DAA technical enabler, but the development of a concept of operations.**

  ❑ Note there is a synergy with the scope of IR-2 WA 5 addressing the DAA enabler and the integration of IFR RPAS in airspace D-G.

❑ Requires ATM, cockpit and technical expertise.

International Standards

Annex 2
to the Convention on
International Civil Aviation

Rules of the Air

WA1-3 Investigate quantum computing, cryptography and sensing applied to ATM

- ❑ Explore how **quantum computing** could be applied in air traffic management and how it could impact ATM:

  - ❑ **Objective is not to develop quantum science**, but to explore applicability to ATM

  - ❑ Requires ATM expertise for the definition of ATM relevant use cases.
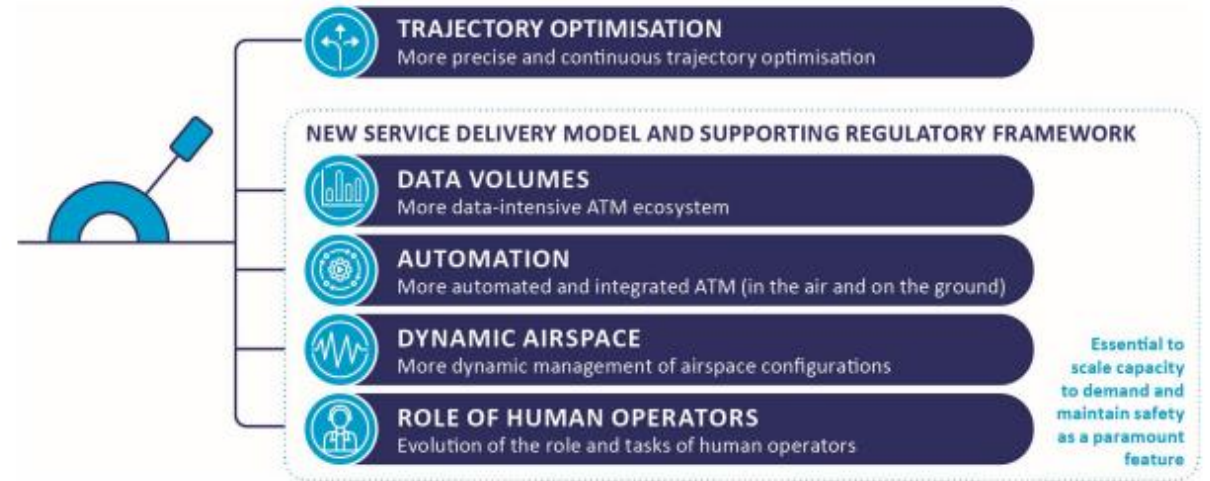
- ❑ Assessment of **ATM cybersecurity/cryptographic needs in the upcoming quantum** era and how they may be addressed (e.g. Post-quantum cryptography (PQC) and potentially Quantum Key Distribution (QKD)):

  - ❑ Requires demonstrated awareness of ATM (ground-ground) communications infrastructure

  - ❑ **The objective is not to advance cryptographic science**, but to examine how cutting-edge cryptographic science may be applied to secure the ATM infrastructure.

- ❑ Explore how **quantum sensing** could be applied for air navigation of crewed aircraft and drones, e.g.:

  - ❑ High-performing alternative position, navigation and timing (A-PNT).

 - ❑ Impact on datalink communications (e.g. time-stamp)

WA1-4 Fundamental research for other topics

❑ Any ATM/U-space research not covered by the ATM Master Plan development priorities for fundamental research (FR-1, FR-2 or FR-3) described in previous topics.

❑ Objective is to develop innovative ideas, concepts, emerging technologies, methods, and theories that explore the current boundary of knowledge on ATM/U-space and that have potential for the evolution of the future air traffic management / U-space system.

❑ Proposals shall demonstrate their innovation / breakthrough potential, justify how the scope of the proposed research is aligned to the ATM Master Plan vision and how the expected outcomes will contribute to (one or more) **key transformation lever(s)** described in the ATM Master Plan.

❑ Requires ATM expertise for the definition of relevant use cases.

TRAJECTORY OPTIMISATION
More precise and continuous trajectory optimisation

NEW SERVICE DELIVERY MODEL AND SUPPORTING REGULATORY FRAMEWORK

DATA VOLUMES
More data-intensive ATM ecosystem

AUTOMATION
More automated and integrated ATM (in the air and on the ground)

DYNAMIC AIRSPACE
More dynamic management of airspace configurations

ROLE OF HUMAN OPERATORS
Evolution of the role and tasks of human operators

Essential to scale capacity to demand and maintain safety as a paramount feature

WA2-1 Research to help shape the future regulatory framework for a Digital European Sky

❑ Support the **evolution of the future regulatory framework** addressing the **impact of automation on the human role** and the challenges to design **AI and non-AI based automation tools**.

❑ Harmonised application of **airspace classification** in Europe.

❑ Develop applications of **Data4Safety**.

❑ Automation of the **security risk assessment** process.

❑ Climate and **environmentally driven modulation of route charging.**

❑ Proposals must demonstrate awareness of state of the art, current regulation and previous research (e.g. by SESAR and/or EASA) on these areas.
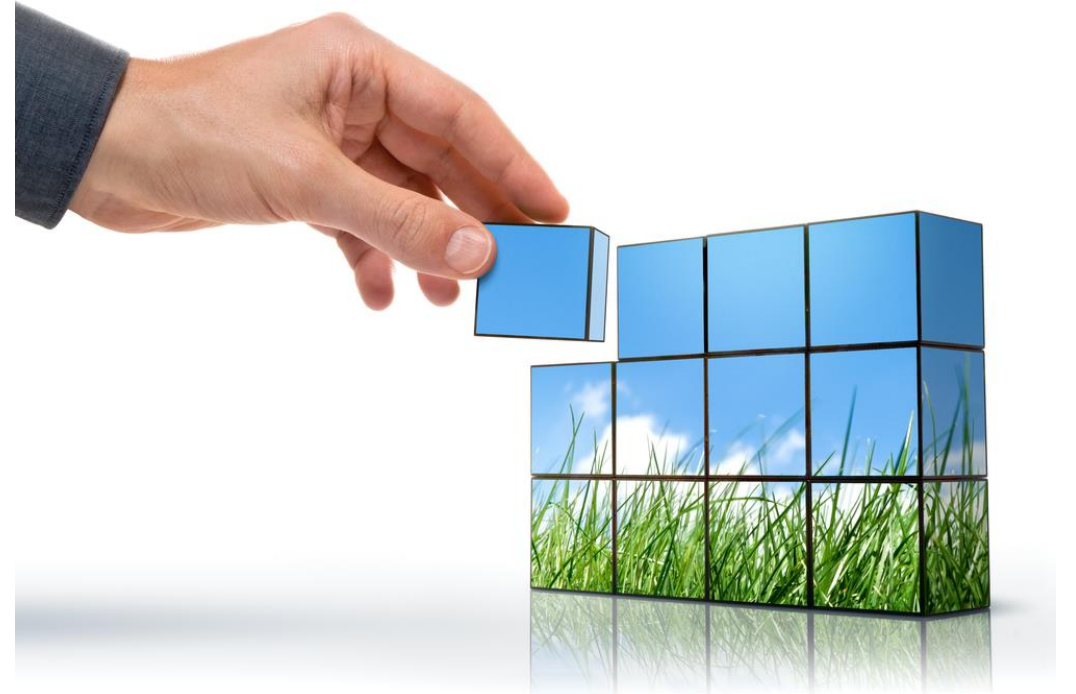
WA2-2 Integration of the next generation aircraft for zero/low emission aviation

- ❑ Ensure ATM system is ready to fully integrate future zero/low emission aircraft without a disproportional impact on conventional air traffic operations:

  - ❑ Collect requirements for their seamless integration in European airspace, and where appropriate provide recommendations for ATM developments.

  - ❑ Definition of potential future scenario(s) representative of future demand for 2035.

  - ❑ Assess the impact on performance, not limited to environmental related KPAs.

- ❑ Identify the needs for the adaptation of the regulatory framework for air navigation and aerodromes and the related safety standards.

- ❑ Research shall consider the work performed under the AZEA initiative and Clean Aviation Joint Undertaking programme.

SESAR 3 DIGITAL EUROPEAN SKY
DES INDUSTRIAL RESEARCH IR-02

Olivia Nunez
Alfredo Gomez de Segura

Reference : ATM MP strategic development priorities

Industrial research

IR-1 Transformation to Trajectory-based Operations

IR-2 Transition towards high performance of air-ground connectivity (multilink)

IR-3 Future En-Route and TMA ground platforms

IR-4 Future Airport platform

IR-5 Autonomy and digital assistants for the flight deck

IR-6 U3 U-space advanced services, IAM and vertiports

- The call covers the 6 ATM Master Plan development priorities for Industrial Research: one WA per development priority

- One or more different topics per WA / development priority

- As additional working area WA 7 covering transversal activities

GENERAL PRINCIPLES

❑ Proposal shall justify the link between the proposed solution(s) and the ATM MP development priorities and development actions for Industrial Research.

❑ Proposals shall identify (if any) the specific and concrete pre-requisites (e.g., SESAR solution(s) / element(s) part of the strategic deployment objectives (SDOs)), which constitute the required background on top of which the new solutions will be developed.

❑ Please pay attention to the specific requirements in terms of expertise, consortia composition and operational capacity, which are detailed for each topic.

GENERAL PRINCIPLES

- ❑ About the **R&I needs** listed under scope in each of the topics:

  - ❑ Proposals are **not expected to address any specific R&I need** listed under a topic, but w**hen an R&I need is covered, the SHALL statements** and scope described in the specification must be considered.

  - ❑ Proposals are not expected to address a specific minimum number of R&I needs.

  - ❑ R&I needs are proposed as an illustration, but the list is not exhaustive and hence is **not prescriptive:** proposals can address R&I needs that are not listed in the call specifications so long as the link to the ATM MP IR development priorities is justified.

- ❑ Note that in addition to the illustrative R&I needs, the topic description for WA 3-1 and WA 4-1 includes nine required capabilities. Unlike the R&I needs**, the required capabilities are prescriptive.**

  - ❑ Please see more information on dedicated slide

GENERAL PRINCIPLES

❑ Proposals may need to consider the execution of integrated validation activities in coordination with one or more projects in other Working Areas and topics.

   ❑ In some research elements there is reference to the potential need for integrated validations, **but this is not intended as prescriptive**

      1) *Integrated validations can be proposed even if there is no specific reference to them in the topic.*

      2) *There is no requirement to propose validations involving a different WA even when they are referred to in the topic (cross-WA validations may not be needed if the validation needs can be covered within the project).*

   ❑ **If integrated validations activities are proposed, they must be planned in a separate work package(s)** and identify associated risks in case the other project(s) are not finally awarded.
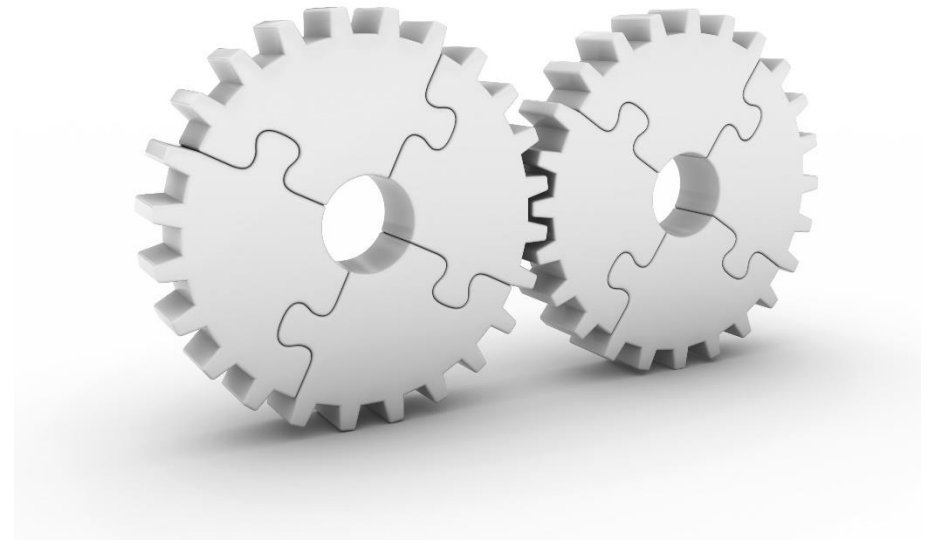
GENERAL PRINCIPLES

❏ Proposals shall describe (with adequate rationale) how the proposed scope is expected to contribute to one or more of the following:

   ❏ **Increased performance of the ATM system** in one of the areas addressed in the Chapter 7 of the MP for Phase D:

      ❏ Airspace capacity

      ❏ Airport capacity

      ❏ Environment

      ❏ Passenger time saving/departure punctuality

      ❏ Cost-efficiency

   ❏ ATM/UTM **safety and/or resilience**

   ❏ Support to the evolution towards the **new service delivery model**, including support to the development of the new certification framework.

GENERAL PRINCIPLES – Automation levels

FIGURE 21: LEVELS OF AUTOMATION TAXONOMY AND CORRESPONDENCE TO EASA AI LEVELS

Proposals shall describe (with adequate rationale) how the proposed SESAR solution(s) will **contribute to achieve automation level 4** within a pre-defined scope and be able to revert to automation level 3 or lower outside of this scope (when a task becomes too complex for automation to handle), **or how the proposed SESAR solution(s) will effectively operate in such an environment**.

❑ Proposals not addressing the increase of the automation level must be compatible with a highly automated environment.

GENERAL PRINCIPLES – New Service delivery model
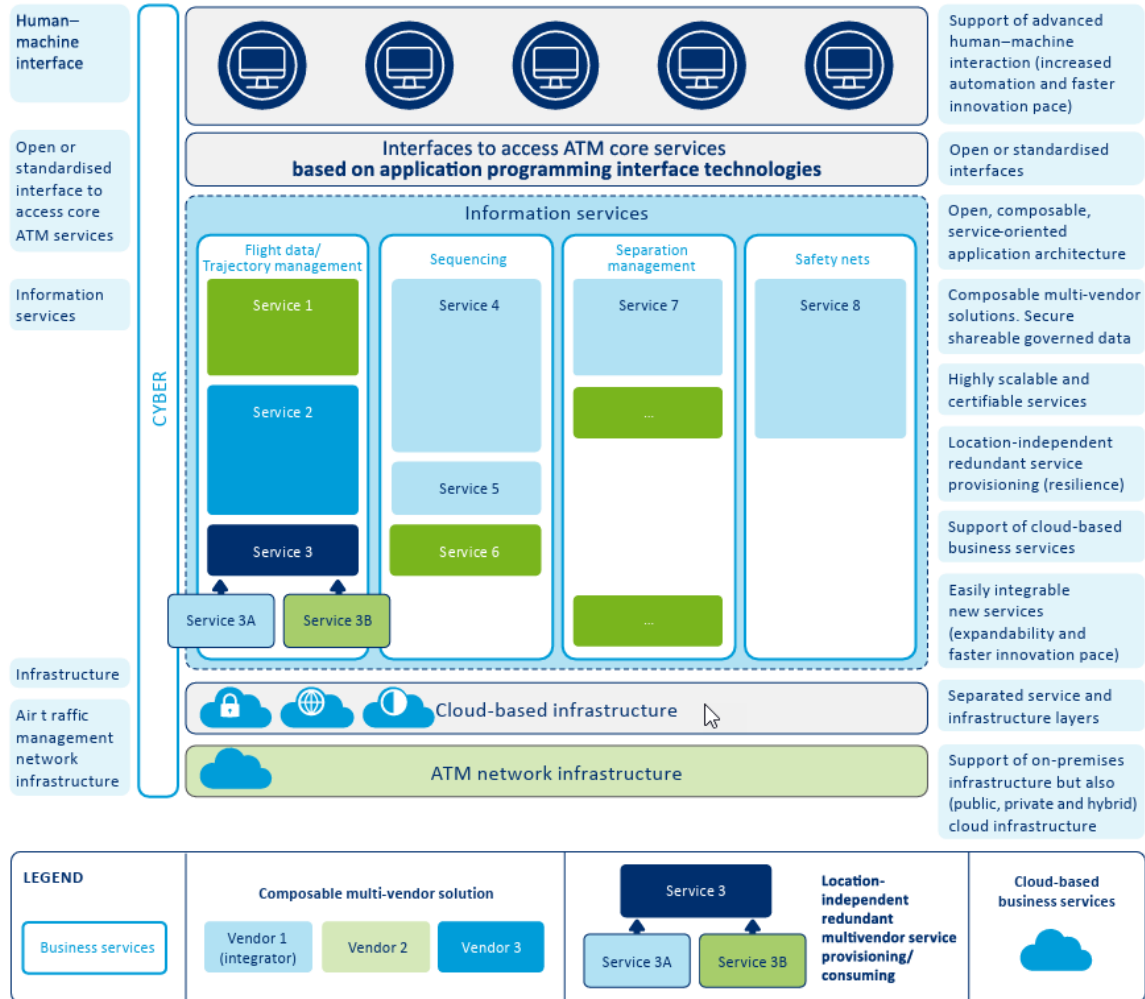
FIGURE 4: VISUALISATION OF THE NEW SERVICE DELIVERY MODEL FOR A TYPICAL ACC

Proposals shall describe (with adequate rationale) how the proposed SESAR Solution(s) will be developed aligned to the **new service delivery model** outlined in the ATM Master Plan.

❑ The new services to be developed by the proposals shall meet SWIM registry (*https://eurregistry.swim.aero/home*) requirements so their interfaces can be later used during the deployment phase.

GENERAL PRINCIPLES

- ❑ Proposals shall describe (with adequate rationale) how the proposed SESAR Solution(s) will be developed aligned to the **new service delivery mode**l outlined in the ATM Master Plan.
  - ❑ The new services to be developed by the proposals shall meet SWIM registry (https://eurregistry.swim.aero/home) requirements so their interfaces can be later used during the deployment phase.

- ❑ IR1 and ER2 projects are already in execution: **proposals shall justify the complementarity with on-going IR1 and ER1-ER2 projects, if the proposals address the same R&I need.**
  - ❑ The links to the projects are below:
    - ER-01
    - ER-02
    - IR-01

GENERAL PRINCIPLES

- ❏ Target maturity levels (TRL):

    - ❏ For WA1 to WA5, proposals shall target TRL6.

        - ❏ Proposals may target TRL4 if duly justified unless otherwise specified in the topic description.

    - ❏ For WA6 (fast-tracks), the target maturity level is TRL7, at least for one of the proposed SESAR solution(s)

        - ❏ Proposals can address additional SESAR solutions targeting a lower TRL (in addition to the solution targeting TRL 7) if duly justified.

    - ❏ Proposals shall not target TRL lower than TRL4 for any of the proposed SESAR solutions.

- ❏ Live trials can be validation techniques for all TRL levels if duly justified.

- ❏ Following the project handbook principles, the expected type of deliverables and content are driven by the target maturity level and not by the type of project or call. Intermediate TRLs (i.e., TRL3, TRL5) are not applicable.

- ❏ The type of deliverables and content that are required as evidence for successfully achieving the target maturity level depends on the type of SESAR solution (ATM solution / Technological solution).

- ❏ Proposals shall align to the requirements included in the SESAR project handbook. Proposals shall align to the requirements included in the SESAR project handbook (e.g., performance management, architecture modelling, etc.). Deviations are possible when justified (e.g., the expected technical deliverables per TRL in the project handbook may not be fully applicable due to the nature and/or objectives of the research).

WA1 (IR-1) Transformation to trajectory-based operations

❑ Covers research needs identified in the ATM Master Plan TBO roadmap.

❑ Requires developments on:

  ❑ Airborne systems: FMSs and EFBs.

  ❑ Ground systems: FOC/WOC, ATS and NM systems

  Developments may be in the same project or in a different working area (WA 3, WA 4, WA 5) and linked to the WA 1 project through integrated validation activities.

WA2 (IR-2) Transition towards high performance of air-ground connectivity (multilink)

- ❏ **Main objective: complete development of successor(s) to VHF datalink mode 2 (VDL2) and must target TRL 6.**

- ❏ It also covers digital voice (if addressed, target TRL 6 is mandatory) and aircraft as a sensor.

- ❏ Civil-military spectrum compatibility must be addressed.
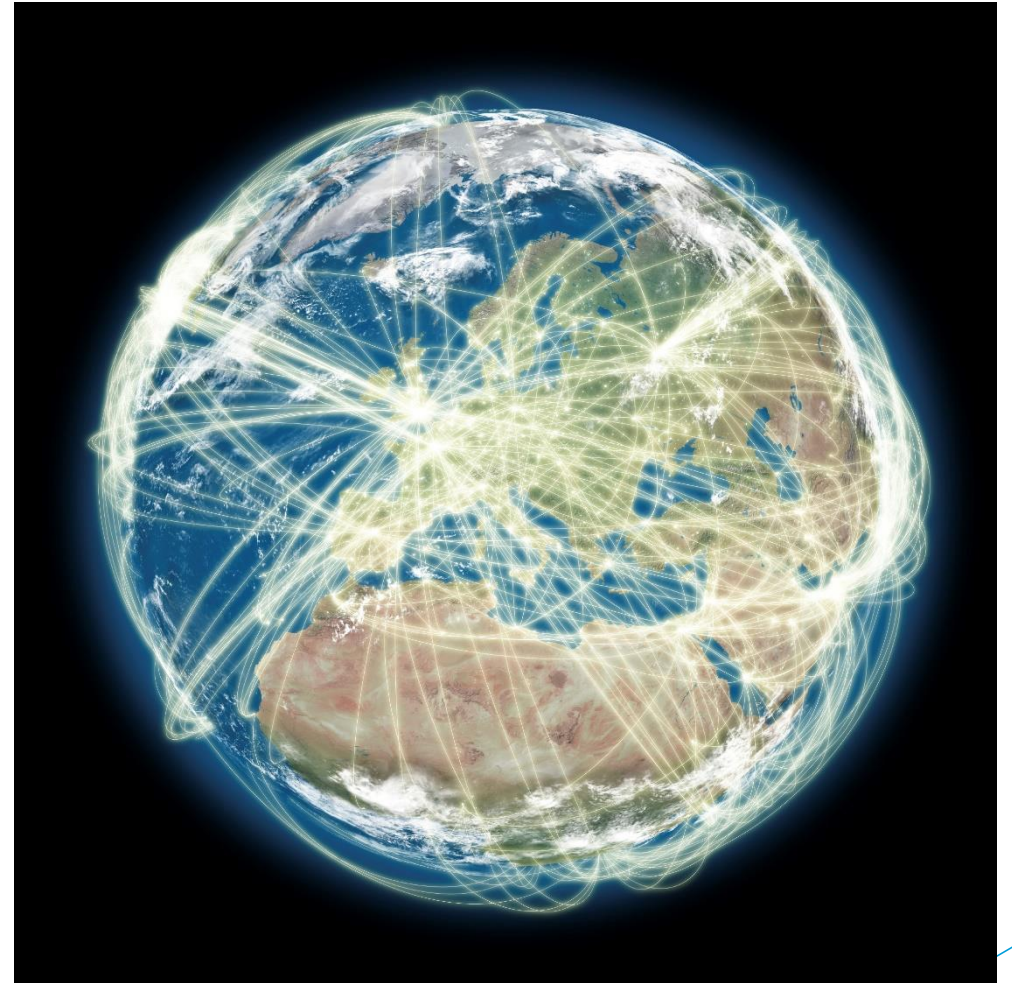
WA3 (IR-3) Future En-Route and TMA ground platforms WA4 (IR-4) Future airport platform (1/2)

WA 3.1 LIST OF NINE REQUIRED CAPABILITIES

- Ensuring that all flights/missions (crewed or uncrewed) operate in a way that maximises, to the fullest extent, aircraft capabilities to reduce the overall climate impact of aviation (CO_2 and non-CO_2) (see detailed R&I needs below).

- Ensuring that each flight trajectory is optimised considering the individual performance characteristics of each aircraft, user preferences, real-time traffic, local circumstances, and meteorological conditions throughout the network. This optimisation shall be systematic, continuous (from planning to execution phase), and extremely precise (see detailed R&I needs below).

- Potential conflicts between trajectories or traffic bottlenecks are resolved much earlier than today, bringing safety benefits.

- Service providers can dynamically and collaboratively scale capacity up or down in line with demand by all airspace users. These capacity adjustments are implemented in real time and ensure optimal and efficient dual (both civil and military) use of resources at any moment across the network (airspace, data, infrastructure, and human-machine teaming).

- End-points, data connection and ecosystem (considering civil-military needs) are cybersecure thanks to the enhancement of information security such as, but not limited to, strong identification, authentication and integrity. Post-quantum cryptography (PQC) algorithms.[84] should be considered where appropriate. Research shall consider the on-going work by ICAO on the international aviation trust framework (IATF), which aims at developing standards and harmonised procedures for a digitally seamless sky and dependable information exchange between all parties.

- The continuous optimisation of every flight/mission from gate to gate is systematically guaranteed thanks to high connectivity between air-ground and ground-ground components.

- The human operator is performing only the tasks that are too complex for automation to handle, teaming up with automation (see automation roadmap of the Master Plan and detailed R&I needs below).

- Voice communication is no longer the primary way of communicating and most routine tasks should be managed through machine-to-machine applications.

- To enable TBO Phase 3 in a highly automated ATM environment in accordance with the TBO and automation roadmaps in the ATM MP (see detailed R&I needs below).

WA 4.1 LIST OF NINE REQUIRED CAPABILITIES

- Ensuring that all flights/missions (crewed or uncrewed) operate in the airport and in adjacent airspace in a way that maximises, to the fullest extent, aircraft capabilities to reduce the overall climate impact of aviation (CO2 and non-CO2) (see detailed R&I needs below).

- Ensuring that each flight trajectory is optimised considering the individual performance characteristics of each aircraft, user preferences, real-time traffic, local circumstances, and meteorological conditions at the airport. This optimisation shall be systematic, continuous (from planning to execution), and extremely precise throughput is improved in high demand scenarios (see detailed R&I needs below).

- Intelligent surface management and airport safety nets maintain airport operations safe in all weather conditions while runway throughput is improved in high demand scenarios (see detailed R&I needs below).

- Service providers can dynamically and collaboratively scale capacity up or down in line with demand by all airspace users. These capacity adjustments are implemented in real time and ensure optimal and efficient dual (both civil and military) use of resources at any moment at the airport (data, infrastructure, and human-machine teaming).

- Endpoints, data connection and ecosystem are cybersecure thanks to enhancement to key properties of information security such as, but not limited to, strong identification authentication and integrity. Post-quantum cryptography (PQC) algorithms should be considered where appropriate, ensuring cyber-resilience risks are adequately managed. Collaboration among airports and system manufacturers will enable an enhanced cybersecurity in the next generation of ATS platforms. Research shall consider the on-going work by ICAO on the international aviation trust framework (IATF), which aims at developing standards and harmonised procedures for a digitally seamless sky and dependable information exchange between all parties.

- The contribution during airport operations to the continuous optimisation of every flight/mission from gate to gate is systematically guaranteed thanks to high connectivity between air-ground and ground-ground components.

- The human operator is performing only the tasks that are too complex for automation to manage, teaming up with automation (see automation roadmap of the Master Plan).

- Air-ground voice communication is no longer the primary way of communicating and most routine tasks should be managed through machine-to-machine applications.

- To enable TBO phase 3 in a highly automated airport environment in accordance with the TBO and automation roadmaps in the ATM MP (see detailed R&I needs below).

☐ Proposals shall describe how the new platform(s) will enable **THE FULL LIST of NINE required capabilities** described as SHALL STATEMENTS in the call specification under "Scope (R&I needs)" for the relevant WA.

☐ It is recommended that proposals **provide a table detailing how each of the nine capabilities** is addressed by the proposed action.

WA3-1 (IR-3) and WA 4-1 (IR-4) Next generation of ATS platforms (2/2)

- ❑ **Innovation is required:**

  - ❑ **Objective is NOT limited to the technological update of existing platforms:** the new platforms must support new operational concepts and higher levels of automation.

  - ❑ Detailed R&I needs are illustration of relevant innovation elements.

- ❑ **Hearings might be organised for proposals addressing WA 3-1 and 4-1** to ensure alignment between proposals and expectations:

  - ❑ Level of innovation.

  - ❑ Coverage of the nine required capabilities.

  - ❑ Contribution to automation level 4.

WA3-2 (IR-3) Enhanced CNS capabilities

- Objective is to advance the capabilities of the following systems:

  - CNS systems: improved navigation and surveillance systems.

  - ATS systems: ability of core ATS platforms for en-route and TMA operations to leverage CNS data as a service.

- Covers Ground-based A-PNT / C-PNT technologies (airborne-based A-PNT / C-PNT technologies are covered in WA-5).

- Call specs are technology agnostic. Proposals may include other technologies that those proposed provided they meet accuracy, availability, continuity, and integrity requirements.

WA4-2 (IR-4) Smarts airports, airports as multimodal nodes and passenger experience

- ❑ Proposals covering the scope of this topic (e.g., multimodality) shall be focused on the ATM dimension / impacts.

- ❑ Requires airport operations expertise (both airside and landside) and may require (depending on the proposed research the participation of ANSPs, NM and/or other modes of transport actors).

- ❑ To facilitate the task of the evaluators when assessing the impact of the proposed action, it is recommended to indicate the targeted airport categories and the potential scalability to other airport categories.

WA5 (IR-5) Autonomy and digital assistants for the flight deck

❑ Development of onboard capabilities:

  ❑ **Automation to support the flight crew for ATM tasks** during complex scenarios, reducing workload while improving safety and efficiency, e.g. support for CPDLC-related tasks. Applicable to SIPO and also to

  ❑ **Automation to support the flight-crew for non-ATM tasks** that free pilot resources so that CPDLC can be used in the TMA and airport surface.

❑ DAA and IFR RPAS integration in airspace D/E (controlled IFR) and F/G (uncontrolled IFR) – note there is a connection to the Digital Flight Rules concept development in ER-03.

❑ Development of small low-power IFR equipage – integration of smaller IFR RPAS for which IFR equipage is too heavy / too energy consuming.

❑ HAO navigation

❑ SBAS and ABAS DFMC, A-PNT / C-PNT for all & Galileo OSNMA

❑ ATM-relevant airborne concepts supporting a reduced environmental impact of aviation - proposal may address ground counterpart within the project or in integrated validations with WA 3 proposals.

WA6 (IR-6) U3 U-space services, IAM and vertiports

Important reminder: each proposal must include at least one solution with a TRL7 maturity level (and may include more additional solutions with target TRL < 7)

❑ To facilitate the task of the evaluators, it is recommended that proposals detail whether the proposed scope applies to open/specific drones, certified aircraft (detailing whether they are IFR or VFR) or the integration of open/specific drones and certified aircraft in the same airspace (typically below 500 ft when the certified aircraft are taking off or landing).

    ❑ An effort has been made to provide scope of applicability (open/specific drones and/or certified aircraft) for each of the research elements provided as illustration.

    ❑ Note editorial error in the specification: Operation of **open and ~~certified~~ specific** drones in controlled airspace without dynamic airspace reconfiguration (DAR)

❑ Synergies to other WAs, e.g.:

    ❑ The integration of IFR certified drones, including DAA development, is covered in WA 5.

    ❑ The development of digital flight rules is covered in the ER-3 call.

❑ Common activities (validation or simply coordination) can be planned. If so, it is recommended that they are planned in a separate work package (that can easily be cancelled if the other project is not awarded).

WA7 Transversal activities

❑ Note that this is a "Coordination and support action (CSA)"

❑ Scope covers two topics:

    ❑ Support to programme execution framework on performance

        ❑ Maintenance of performance framework

        ❑ Support to performance assessment and consolidation of network impact assessment: including network impact assessment

    ❑ Support to programme execution on SESAR architecture and on Strategic deployment planning and monitoring

        ❑ The scope distinguishes between "main activities" and "additional support activities" on the request of the SESAR 3 JU

❑ Note that is WA7-1 there is an editorial mistake: text in red should be ignored (Architecture is covered in WA7-2 not in WA7-1).

        ❑ "The scope covers the support to SESAR performance related activities. architecture activities (i.e., architecture modelling framework and support) and performance activities".

SESAR 3 DIGITAL EUROPEAN SKY PROGRAMME MANAGEMENT

Olivier MONGÉNIE

SESAR JU programme execution framework

SESAR 3 JU Project Handbook - Edition 02.00

Programme Execution Framework

Edition date: 19 December 2024
Edition: 02.00
Status: Approved

Abstract

This document is the guidance to project managers (i.e. coordinators) of SESAR 3 Joint Undertaking (SESAR 3 JU) projects and their teams about how to conduct their project and comply with needs defined by the SESAR 3 JU for its programme execution. **This guidance is applicable to all projects that entered execution after its publication date, unless otherwise specified**.

The application of this project handbook is mandatory with the aim to execute the European Air Traffic Management (ATM) Master Plan.

EUROPEAN PARTNERSHIP

Co-funded by the European Union

- The **SESAR JU project handbook** provides an **overview of the management of the SESAR JU DES programme**

- It lists the **key processes applicable to all the DES projects**

- It provides **guidance on how SESAR JU projects shall be managed** to support project delivery according to SESAR JU expectations and European ATM Master Plan ambitions

- Edition 02.00 of the project handbook included is in the **call documentation**

- The programme execution framework as well as the related guidelines, templates and tools to be used during the projects' execution will be presented in more details at the projects' kick off

Grant & project management – key milestones for ER projects

1. Kick-off meeting: T_0+1 month

2. Project management plan (PMP), including, for each SESAR Solution[1], the confirmation of its title, definition, description, initial maturity level as well as performance expectations: T_0+3 months

3. Validation activities: when required

4. Iterative versions and final versions of the deliverables: when required

5. End of first reporting period: T_0+12 months

6. Horizon Europe project review (including technical review): T_0+14-15 months

7. Final solution technical deliverables submission: T_{end}-10 months

8. Exit maturity gate: T_{end}-8 months

9. End of R&I activities / start of final communication, dissemination & exploitation activities: T_{end}-6 months

10. Final non-technical deliverables submission: T_{end}-2 months

11. Grant Agreement end date (end of second reporting period): T_{end} (T_0+30 months max.)

*[1] IR projects and application-oriented ER projects are expected to identify candidate SESAR Solution(s) **as part of their proposal** while ATM excellent science and outreach ER projects may wait for R&I activities to progress to identify candidate SESAR Solution(s)*

Grant & project management – key milestones for ER projects

Grant management stream

- T_0+1 KO meeting
- Project initiation
- T_0+1 KO meeting
- T_0+12 Start REPA
- T_0+14 (max) HE technical & financial report
- T_0+15 Project review
- T_0+17 Payment
- $T0+?$ Grant amendment
- T_{end} Project closure
- $T_{end}+2$ (max) Final HE technical & financial report
- $T_{end}+5$ Payment

REPA / Final REPA

Programme management stream

- Confirmed project / solution exit maturity level & project schedule
- T_0+3 PMP & CDE plan
- T_0+6 DMP
- $T_0+?$ Iterative versions of deliverables
- T_0+14 Project input to review (e.g. maturity self assessment, validation approach) + CDE plan update
- T_0+15 Project review
- $T_0+?$ Validation activities
- $T_0+?$ Iterative versions of deliverables
- $T_{end}-10$ PJ provides deliverables for maturity assessment
- $T_{end}-8$ Exit maturity gate
- $T_{end}-6$ Project submits final solution-related deliverables reflecting MG outcome
- Final CDE period (no technical work)
- $T_{end}-2$ Project submits final non solution-related deliverables (e.g. CDE plan, DMP)

Acronym	Definition
CDE	Communication, dissemination & exploitation
DMP	Data management plan
HE	Horizon Europe
KO	Kick-off
PMP	Project management plan
REPA	Reporting & payment process

- HE milestone
- Technical milestone
- Project submission
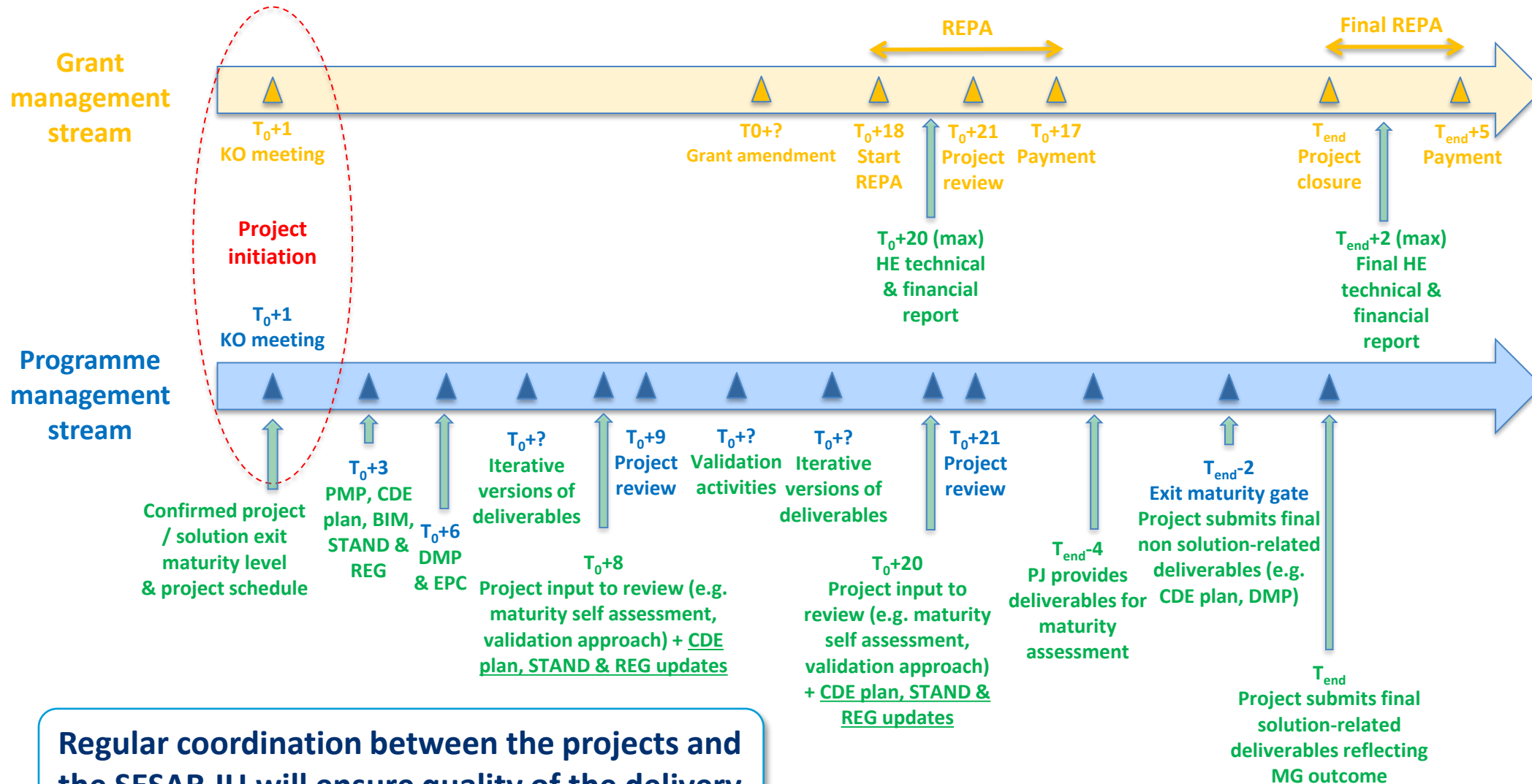- T_0+12 $T_0 + 12$ months

Regular coordination between the projects and the SESAR JU will ensure quality of the delivery

Grant & project management – key milestones for IR projects

1. Kick-off meeting: T_0+1 month

2. Project management plan (PMP), including, for each SESAR Solution[1], the confirmation of its title, definition, description, initial maturity level as well as performance expectations: T_0+3 months

3. Validation activities: when required

4. Iterative versions and final versions of the deliverables: when required

5. Technical project review: T_0+9-10 months

6. End of first reporting period: T_0+18 months

7. Horizon Europe project review (including technical review): T_0+20-21 months

8. Final solution technical deliverables submission: T_{end}-4 months

9. Exit maturity gate: T_{end}-2 months

10. Final non-technical deliverables submission: T_{end}-2 months

11. Grant Agreement end date (end of second reporting period): T_{end} (T_0+36 months max.)

[1] *IR projects and application-oriented ER projects are expected to identify candidate SESAR Solution(s) **as part of their proposal** while ATM excellent science and outreach ER projects may wait for R&I activities to progress to identify candidate SESAR Solution(s)*

# Grant & project management – key milestones for IR projects

Grant management stream

REPA

Final REPA

- T_0+1 KO meeting
- T0+? Grant amendment
- T_0+18 Start REPA
- T_0+21 Project review
- T_0+17 Payment
- T_{end} Project closure
- $T_{end}+5$ Payment

Project initiation

T_0+20 (max) HE technical & financial report

$T_{end}+2$ (max) Final HE technical & financial report

T_0+1 KO meeting

Programme management stream

- Confirmed project / solution exit maturity level & project schedule
- T_0+3 PMP, CDE plan, BIM, STAND & REG
- T_0+6 DMP & EPC
- $T_0+?$ Iterative versions of deliverables
- T_0+8 Project input to review (e.g. maturity self assessment, validation approach) + CDE plan, STAND & REG updates
- T_0+9 Project review
- $T_0+?$ Validation activities
- $T_0+?$ Iterative versions of deliverables
- T_0+20 Project input to review (e.g. maturity self assessment, validation approach) + CDE plan, STAND & REG updates
- T_0+21 Project review
- $T_{end}-4$ PJ provides deliverables for maturity assessment
- $T_{end}-2$ Exit maturity gate Project submits final non solution-related deliverables (e.g. CDE plan, DMP)
- T_{end} Project submits final solution-related deliverables reflecting MG outcome

Regular coordination between the projects and the SESAR JU will ensure quality of the delivery

Acronym	Definition
CDE	Communication, dissemination & exploitation
DMP	Data management plan
HE	Horizon Europe
KO	Kick-off
PMP	Project management plan
REG	Regulatory deliverable
REPA	Reporting & payment process
STAND	Standardisation deliverable

- HE milestone
- Technical milestone
- Project submission
- T_0+12 T_0 + 12 months

SESAR Solutions: main programme output

- Each project shall define SESAR Solution(s)[1]
  - SESAR Solution = **deployable** ATM improvement in a relevant operating environment
  - Definition & description according to European ATM Master Plan vision
  - Expected performance (KPAs & KPIs)
  - Initial and target exit maturity levels

- Projects shall apply transversal areas methodologies for safety, human performance, security and environment assessments (when applicable)
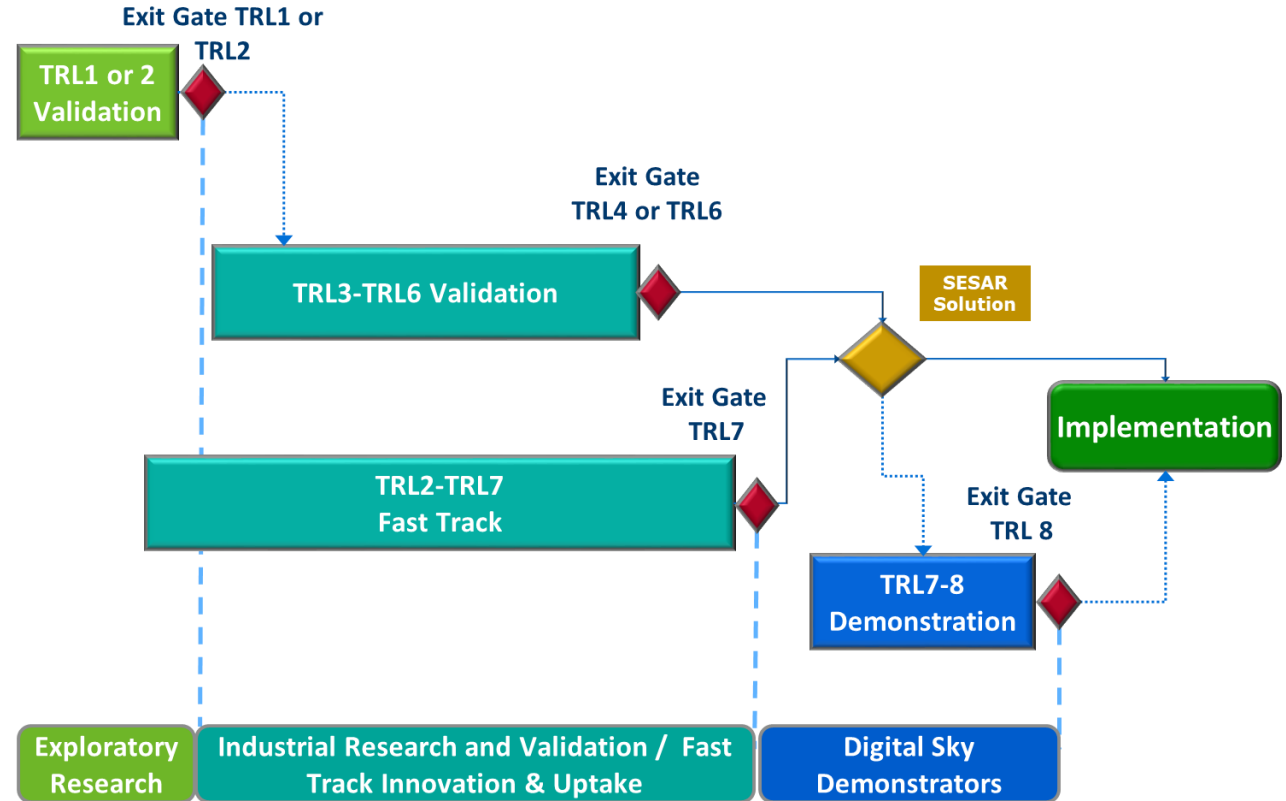
[1] IR projects and application-oriented ER projects are expected to identify candidate SESAR Solution(s) **as part of their proposal** while ATM excellent science and outreach ER projects may wait for R&I activities to progress to identify candidate SESAR Solution(s)

SESAR Solution deliverables vs. target maturity levels

- The applicable target maturity levels for the different types of projects are those indicated in the call documentation

  - ER WA1 (fundamental research): TRL1

  - ER WA2 (applied research): TRL2

  - IR WA1 to WA5: TRL6[1]

  - IR WA6 (fast-tracks): TRL7[2]

- Proposals can target higher maturity levels than those initially expected. However, **the expected type of deliverables and content are driven by the target maturity level and not by the type of project or call**

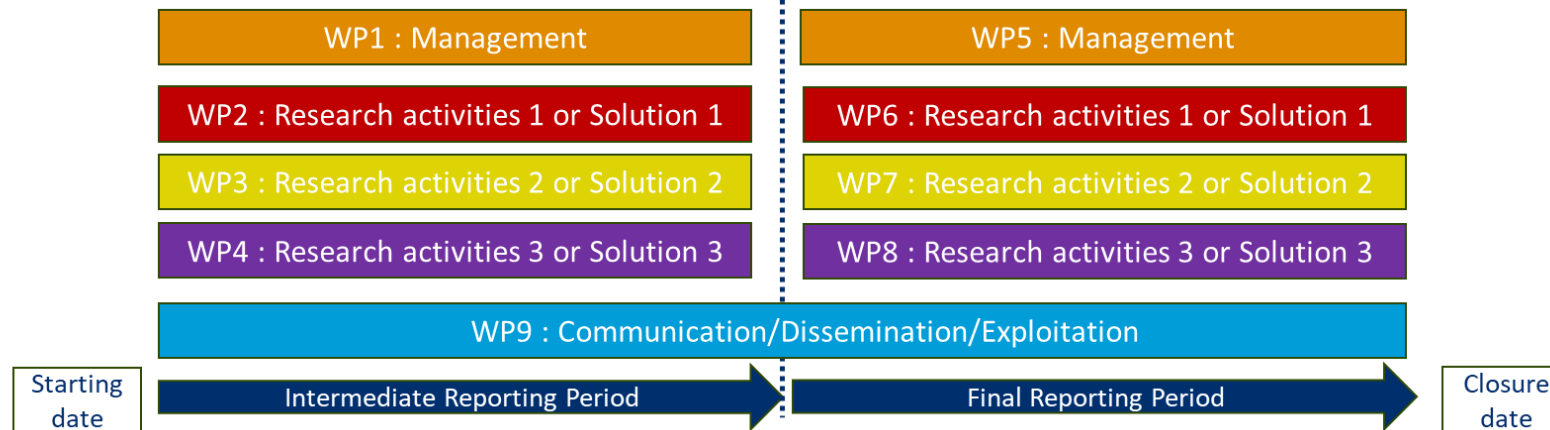| Deliverable	Exit maturity level				
	TRL1	TRL2	TRL4/6	TRL7	TRL8
Concept outline	X	X			
ERP	X	X			
ERR	X	X			
OSED (ATM solutions only)		X			
FRD		X			
ECO-EVAL		X			
CN			X	X	
SPR-INTEROP/OSED (ATM solutions only)			X	X	
TS/IRS			X	X	
(T)VALP			X	X	
(T)VALR			X	X	
CBA(T)			X	X	
STAND			X	X	X
REG			X	X	X
DEMOP					X
DEMOR					X

[1] *Proposals may target TRL4 if duly justified, unless otherwise specified in the topic description*
[2] *For at least one of the proposed solutions in a fast-track project*

Lump sum approach vs. project work breakdown

- The lump sum approach is a financial form of EU contribution based on the quality of the work delivered instead of the actual costs
  - Lump sums = costs associated to a specific work package (WP)
  - WP = major sub-division of the project work plan (WP ≠ single activity or single task)
  - WPs must be defined according to the grant duration / reporting period in the proposal (only 2 reporting periods will be defined)

- Principles to be followed for structuring proposals
  - A WP might cover either one or two reporting periods
  - A research activity / SESAR Solution development should be covered by only one WP per reporting period
  - Deliverables shall be identified per WP

- WP completion assessment based on available deliverables + elements related to the project review (1st reporting period) and the exit maturity gate (final reporting period)

Example of project structure:

WP1 : Management	WP5 : Management
WP2 : Research activities 1 or Solution 1	WP6 : Research activities 1 or Solution 1
WP3 : Research activities 2 or Solution 2	WP7 : Research activities 2 or Solution 2
WP4 : Research activities 3 or Solution 3	WP8 : Research activities 3 or Solution 3
WP9 : Communication/Dissemination/Exploitation	

Starting date → Intermediate Reporting Period → Final Reporting Period → Closure date

Project reviews

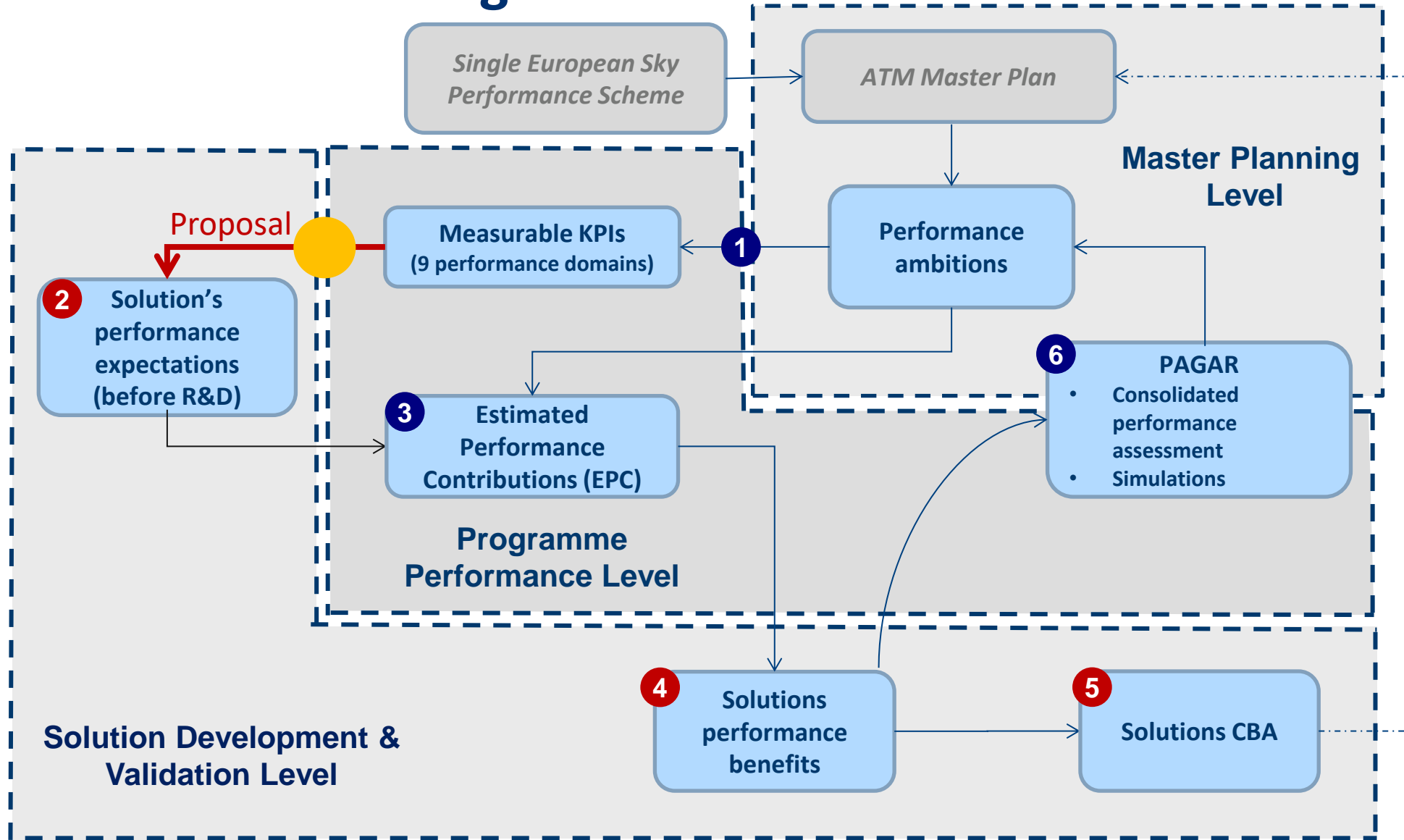| Provide a project & programme snapshot on a yearly basis | When applicable, review the project's compliance with the grant agreement & support the assessment of the payment request | Review progress of the R&I and solutions' development and expected outcomes (solution projects) / Review support to the programme (transversal projects) | Review project & programme risks, issues & opportunities | Review contribution to standardisation & regulatory activities | Review and agree on communication & dissemination activities | Support update of the extended release strategy |

The technical project review is a key milestone to steer the projects and the programme!

Performance management[1]

Master Planning Level

Programme Performance Level

Solution Development & Validation Level

Single European Sky Performance Scheme

ATM Master Plan

Performance ambitions

1

Measurable KPIs (9 performance domains)

Proposal

2 Solution's performance expectations (before R&D)

3 Estimated Performance Contributions (EPC)

6 PAGAR
- Consolidated performance assessment
- Simulations

4 Solutions performance benefits

5 Solutions CBA

[1] *Full workflow and performance expectations applicable to IR projects only.*

● Step performed in the proposal   ● Step performed by the performance transversal project   ● Step performed by the solution

ATM Master Plan performance ambition[1]

SUSTAINABILITY

Future system design should adapt to **the total climate impact of aviation** while addressing noise and local air quality.

ENHANCED SAFETY

Increase safety levels as the traffic will become more complex to manage.

IMPROVED PASSENGER EXPERIENCE

Enhance overall passenger experience through integrated multi- modal transportation, emphasising predictability, punctuality and seamless connectivity.

FULLY SCALABLE WITHIN MINUTES

Enable ATS providers to scale airspace capacity dynamically within minutes to meet all demand types (civil, military, manned, unmanned), optimising resource and technologies usage.

SECURE DATA FLOWS

Ensure free and secure data exchange among trusted users.

Safety

Security

Capacity

Predictability

Cost efficiency

SUSTAINABILITY
(emissions and noise)

Scalability

Punctuality

ATM top priorities
No trade-offs

Delivering societal benefits, improving the overall passenger experience

Trajectories continuously optimised
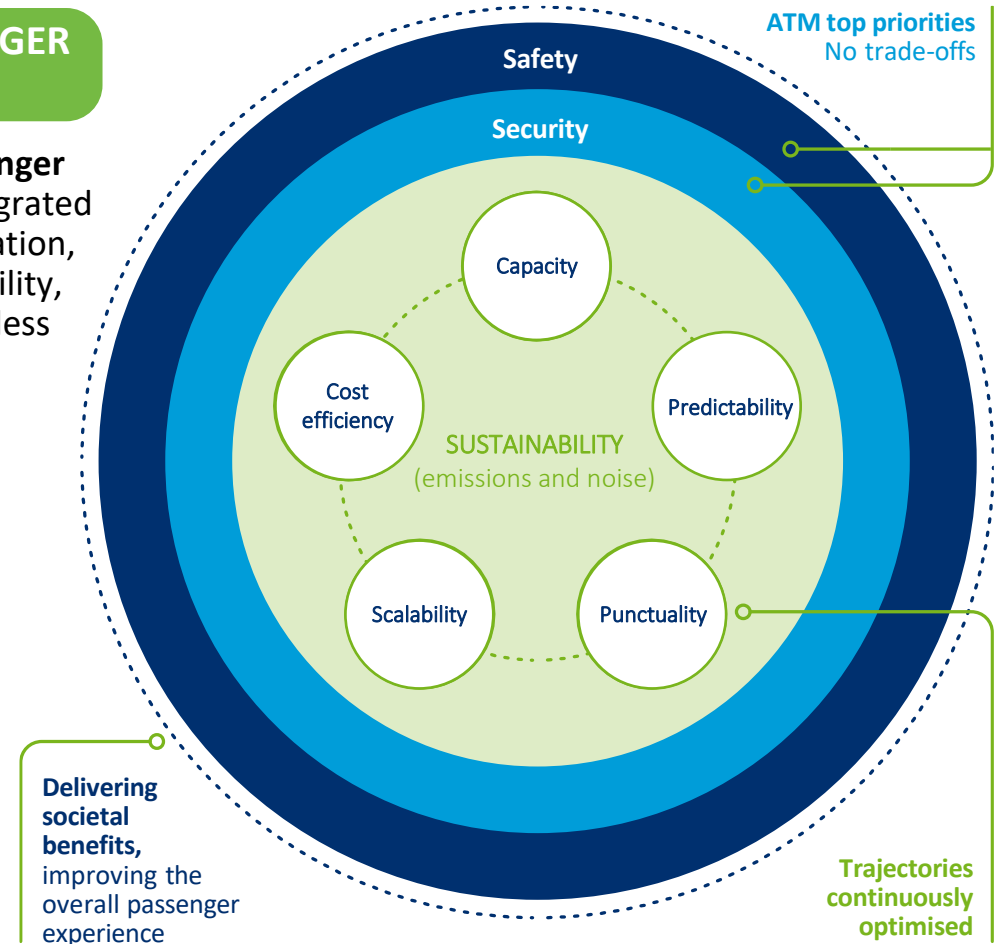
[1] IR proposals shall position the solutions against the ATM Master Plan performance areas

Maturity assessment

Projects shall assess the maturity of their content / SESAR Solutions by applying the **SESAR maturity criteria**, based on evidences supported by technical deliverables

- SESAR maturity criteria
  - Structured per threads
  - Built progressively from one maturity phase to the next one
  - Key focus changes depending on the maturity level and solution nature (ATM or technological)

- **Exit maturity gate** = formal milestone led by the SESAR JU at the end of the R&I activity
  - Assess and agree of the actual maturity level (TRL) of a SESAR Solution
  - Agree on recommendations and identify risks or opportunities for the next R&I phase

Type of SESAR Solution	Thread	Criteria ID	Criteria definition	Where - Technical Deliverable
ATM Solution	OPERATIONAL	OPS.TRL2.1	Is the initial documented description of the proposed ATM solution justified by the ATM Master Plan and/or SRIA e.g. reference to specific section or paragraph?	SPR-INTEROP/OSED TRL2 (i.e. mainly OSED section)
ATM Solution	OPERATIONAL	OPS.TRL2.2	Is there an initial identification and definition of the ATM SESAR Solution and related OI steps?	SPR-INTEROP/OSED TRL2 (i.e. mainly OSED section)
ATM Solution	OPERATIONAL	OPS.TRL2.3	Have different options for the new operating method been described and assessed?	SPR-INTEROP/OSED TRL2 (i.e. mainly OSED section)
ATM Solution	OPERATIONAL	OPS.TRL2.4	Have potential operating environments been identified where, if deployed, the ATM SESAR Solution could bring performance benefits?	SPR-INTEROP/OSED TRL2 (i.e. mainly OSED section)
ATM Solution	OPERATIONAL	OPS.TRL2.5	Have representative stakeholders been identified, are their needs and expectations for the ATM SESAR solution documented?	SPR-INTEROP/OSED TRL2 (i.e. mainly OSED section)
ATM Solution	SYSTEM	SYS.TRL2.1	Has the ATM solution architecture been documented? e.g. what systems may be impacted? Note: For U-space, the references are the latest applicable version of CORUS Concept confirmed by the SJU and the U-space architecture principles	FRD TRL2
ATM Solution	SYSTEM	SYS.TRL2.2	Have several architectural options for the ATM solution been proposed/ investigated?	FRD TRL2
ATM Solution	SYSTEM	SYS.TRL2.3	Are there needs for supporting CNS infrastructure (if any) adequately identified and justified for the different operating environments relevant for the ATM SESAR Solution?	FRD TRL2
ATM Solution	PERFORMANCE & CBA	PER.TRL2.1	Has a TRL2 Human Performance assessment been performed and documented following SESAR HP reference material?	SPR-INTEROP/OSED TRL2 (i.e. HPAR) ERR TRL2
ATM Solution	PERFORMANCE & CBA	PER.TRL2.2	Has a TRL2 performance assessment been performed and documented following SESAR performance reference material?	SPR-INTEROP/OSED TRL2 (PAR) ERR TRL2

Quality assessment of deliverables
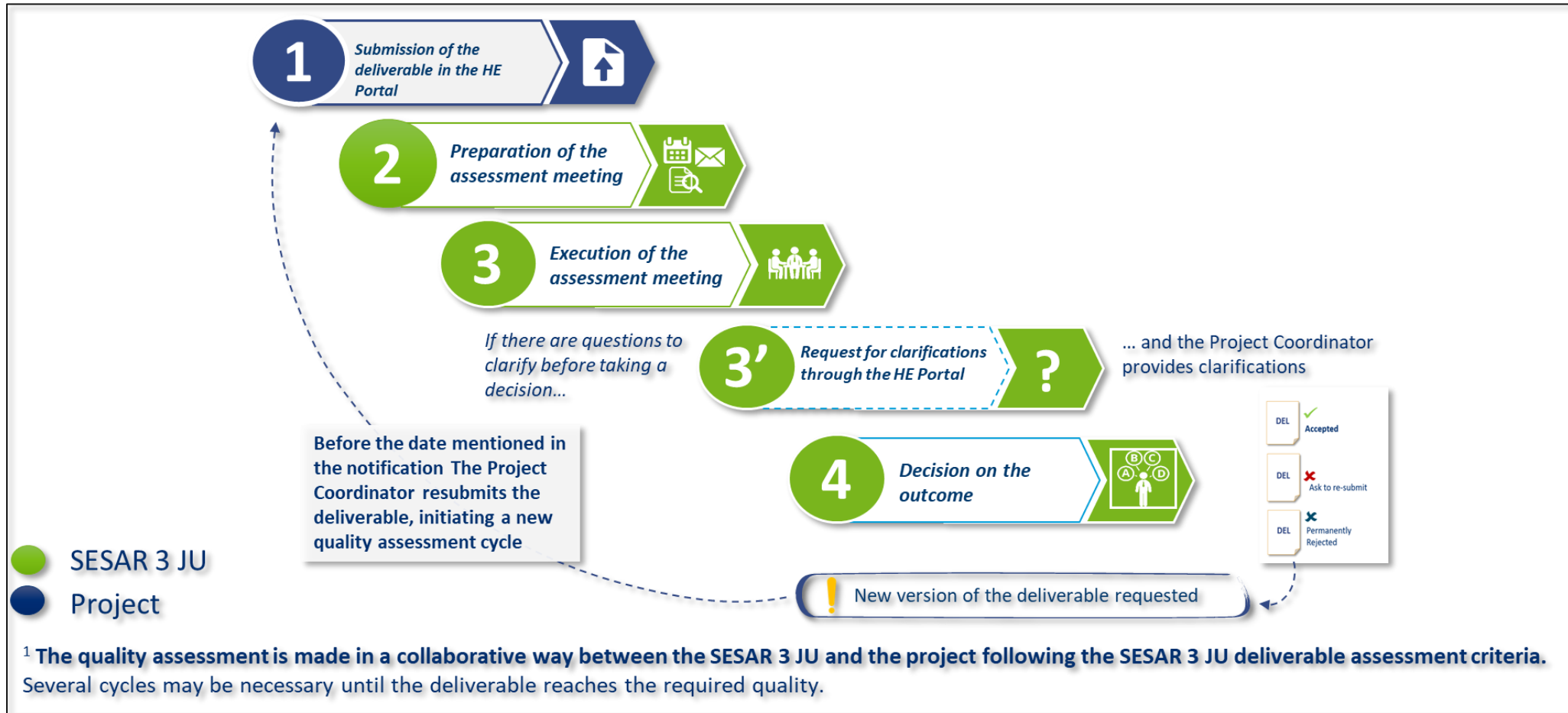
- **Iterative review** of draft deliverables will **de-risk the formal assessment** of the final deliverable
- At start of deliverables drafting, please consider
  - Contribution to standardisation and regulatory needs (e.g. coordination with EUROCAE, EASA)
  - Applying performance and transversal assessment methodologies

SESAR 3 DIGITAL EUROPEAN SKY EASA

Luca CAPOFERRI

EASA in your proposals

- As per article 156(1) of the SBA, EASA may be invited to advise on issues related to compliance with aviation safety, interoperability and environmental standards, to ensure that these lead to timely development of relevant standards, testing capacity and regulatory requirements for product development and deployment of new technologies

- When relevant, projects shall **anticipate the (financial) contribution of EASA in the grant** providing advice to beneficiaries in line with Article 156(1) of the SBA. The eligibility of applicable costs of the beneficiaries is regulated under Section 6.2 C.3 of the Grant Agreement

- EASA contribution may include:
  - Coordinating the **review of the safety argumentation** with the competent authorities involved
  - Providing guidance to support the **safety review**, and the development of **REG and STAND** deliverables
  - Supporting the **approval and endorsement** of the safety cases

- Contact during the proposal elaboration phase: SESAR_requests@easa.europa.eu

- EASA will share a template with interested projects/proposals for the establishment of a service contract

SESAR 3 DIGITAL EUROPEAN SKY COMMUNICATION, DISSEMINATION & EXPLOITATION

Olivier MONGÉNIE

Definitions

sesar JOINT UNDERTAKING

Communication:
Promote your action and results

Inform, promote and communicate your activities and results

Reaching multiple audiences
Citizens, the media, stakeholders

How?
- Having a well-designed strategy
- Conveying clear messages
- Using the right media channels

When?
From the start of the action until the end

Why?
- Engage with stakeholders
- Attract the best experts to your team
- Generate market demand
- Raise awareness of how public money is spent
- Show the success of European collaboration
- **Legal obligation: Article 38.1 of the Grant Agreement**

Dissemination:
Make your results public

Open Science: knowledge and results (free of charge) for others to use

Only to scientists?
Not only but also to others that can learn from the results: authorities, industry, policymakers, sectors of interest, civil society

How?
Publishing your results on:
- Scientific magazines
- Scientific and/or targeted conferences
- Databases

When?
At any time, and as soon as the action has results

Why?
- Maximise results' impact
- Allow other researchers to go a step forward
- Contribute to the advancement of the state of the art
- Make scientific results a common good
- **Legal obligation: Article 29 of the Grant Agreement**

Exploitation:
Make concrete use of results

Commercial, Societal, Political Purposes

Only by researchers?
Not only, but also:
- Industry including SMEs
- Those that can make good use of them: authorities, industrial authorities, policymakers, sectors of interest, civil society

How?
- Creating roadmaps, prototypes, softwares
- Sharing knowledge, skills, data

When?
Towards the end and beyond, as soon as the action has exploitable results

Why?
- Lead to new legislation or recommendations
- For the benefit of innovation, the economy and the society
- Help to tackle a problem and respond to an existing demand
- **Legal obligation: Article 28 of the Grant Agreement**

Communication is a contractual obligation

In line with the grant agreement (**Art. 17 & Annex V**), project beneficiaries are obliged to:

1. **Promote** activities according to a communications plan.

2. **Display** logos of funding bodies and disclaimer

3. **Acknowledge** the source of the funding.

4. **Coordinate** all planned activities between consortia members and with the SESAR 3 JU

➡️ Breach of contract obligations may lead to reduced grant

Display logos of funding bodies and disclaimer

Article 17.2/3 and Annex 5

Logos

Acknowledgement

The project is supported by the SESAR 3 Joint Undertaking and its founding members.

Disclaimer

'*Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or SESAR 3 JU. Neither the European Union nor the SESAR 3 JU can be held responsible for them.*'

To be used for:
- Activities media relations, conferences, seminars, etc,
- All material: website, publications, posters, presentations, roll-ups, etc.
- All formats: paper, digital
- Infrastructure, equipment, vehicles, supplies or major results funded by the grant

Additional SESAR 3 JU branding components

Streamlined visual identity for projects:

- Project logo style per programme strand
- Association with SESAR 3 JU logo, EU emblem and grant agreement text.
- To be used in all communications material

SESAR 3 JU will provide logo templates to all projects once established.

SESAR 3 JU visual charter and "Support by" logo

CORUS

ERICA

ADCENSIO

FAST TRACK

EXPLORATORY RESEARCH	DEEP BLUE
	C 100% / M 85% / Y 5% / K 30%
	R 0 / G 48 / B 111
	#00306F

INDUSTRIAL RESEARCH	LIGHT BLUE
	C 100% / M 0% / Y 5% / K 0%
	R 0 / G 157 / B 217
	#009DD9

DIGITAL SKY DEMONSTRATORS	GREEN GRASS
	C 60% / M 0% / Y 100% / K 0%
	R 122 / G 181 / B 29
	#7AB51D

FAST TRACK	DARK GREEN
	C 80% / M 10% / Y 100% / K 0%
	R 25 / G 156 / B 105
	#199C69

Co-funded by the European Union

SUPPORTED BY
sesar
JOINT UNDERTAKING

Coordinate all planned activities between consortia members and with the SESAR 3 JU

(4)

- Ensures that project communications and outreach milestones are **integrated** into broader SESAR 3 JU communications scheduling and planning

- Enables a **consistency** check of project strategies, key messages, targeted audiences and communications material and an alignment with the SESAR 3 JU's core objectives

- Provides communications **support** of the SESAR 3 JU in promoting project events and conferences

- **Maximises outreach** by using SESAR 3 JU communications channels and cooperative arrangements to further cascade relevant content
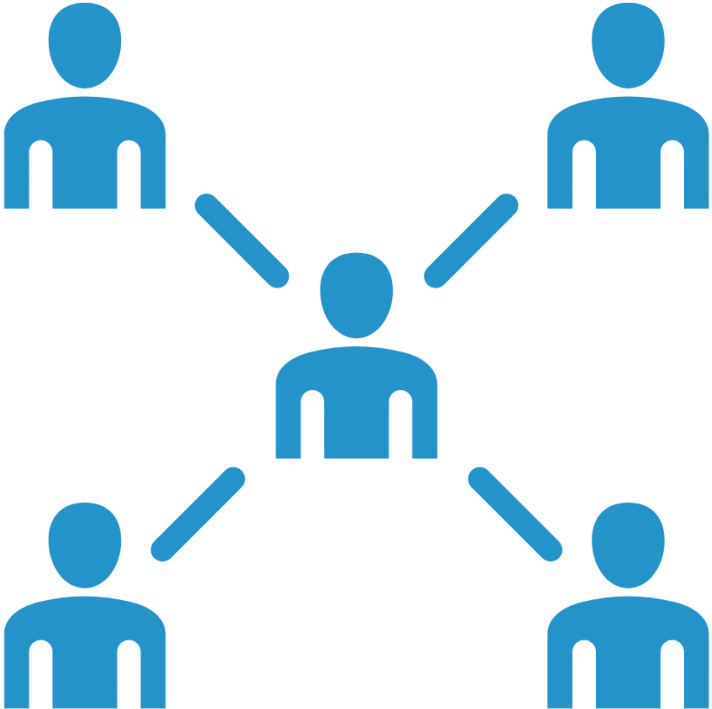
SESAR 3 DIGITAL EUROPEAN SKY HORIZON EUROPE CALLS EVALUATION AND PROCEDURES

Emanuela FLORA

SESAR 3 DIGITAL EUROPEAN SKY CALLS

HORIZON-SESAR-2025-DES-ER-03 – Exploratory research and HORIZON-SESAR-2025-DES-IR-02 – Industrial research

15 January 2025

1 April 2025

16 September 2025

9 October – 14 November 2025

17 November – 5 December 2025

February 2026

16 May 2026

Remote evaluation

Central evaluation

Calls publication

Calls opening

Calls deadline

GAP opened

All GAs to be signed
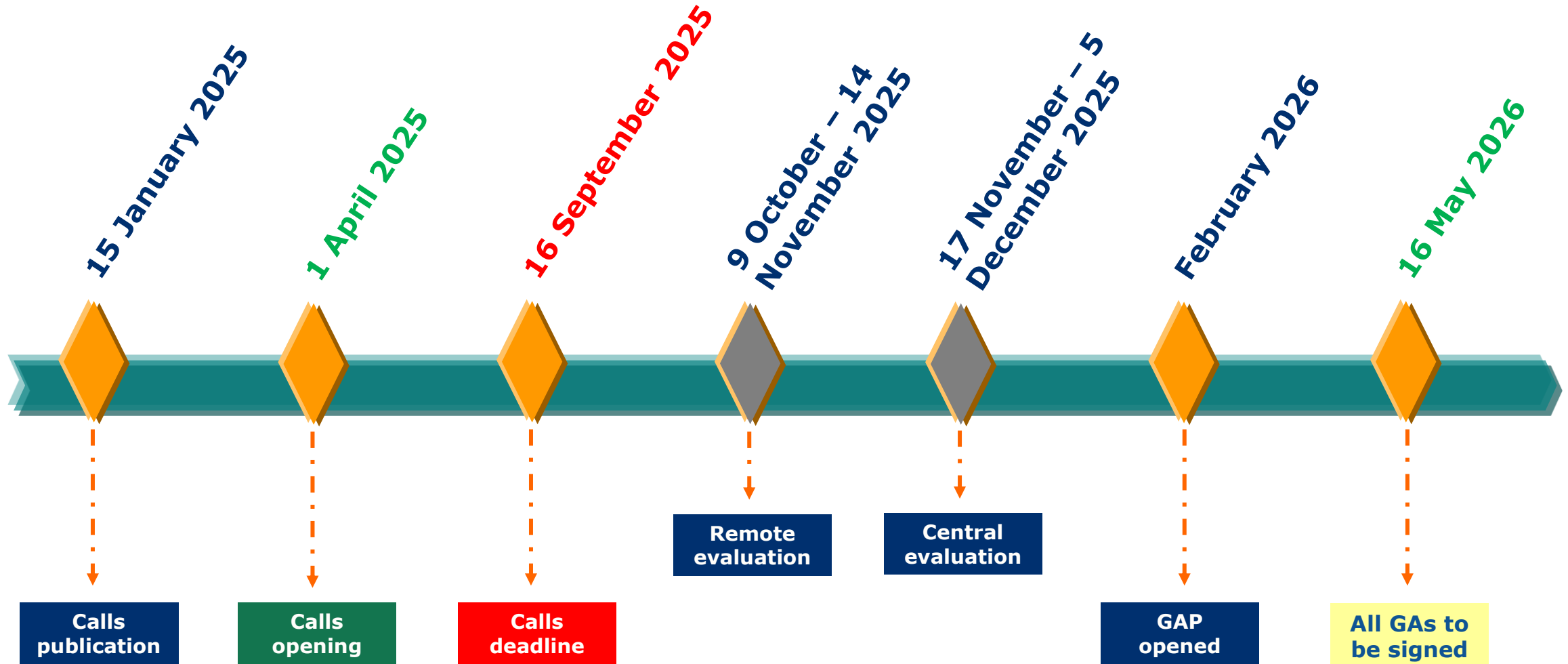
Work Areas and budget allocation

Work Area	Full title	Type of Action	Budget	
	EXPLORATORY RESEACH (ER-03)			
WA1	Fundamental research	RIA	€	10.000.000
WA2	Applied research	RIA	€	14.000.000
TOTAL		-	**€**	**24.000.000**

Work Area	Full title	Type of Action	Budget	
	INDUSTRIAL RESEACH (IR-02)			
WA1	Transformation to trajectory-based operations	RIA	€	20.000.000
WA2	Transition towards high performance of air-ground connectivity (multilink)	RIA	€	14.000.000
WA3	Future En-Route and TMA ground platforms	RIA	€	113.000.000
WA4	Future airport platform	RIA	€	30.000.000
WA5	Autonomy and digital assistants for the flight deck	RIA	€	30.000.000
WA6	U3 U-space services, IAM and vertiports	IA	€	20.000.000
WA7	Transversal activities	CSA	€	3.000.000
TOTAL		-	**€**	**230.000.000**

⚠️ Bi-Annual Work Programme 2024-2025 – Annex III for max contribution per project under each Work Area (WA)

Admissibility – Annexes A and E of <u>HE General Annexes</u>

- **submitted electronically** via the Funding & Tenders Portal **on time**
- **readable, accessible and printable**
- **complete** (Part A administrative data, Part B technical description, **detailed budget table**)
- include a **plan for the exploitation and dissemination of results**

Proposal part B **page limit**

- **RIA** and **IA** type of actions: limit for a full application is **50 pages**
- **CSA** type of actions: limit for a full application is **33 pages**

Please note that excess pages will be disregarded!

Eligibility – Annex B of HE General Annexes

Who is eligible to participate?

CONSORTIUM COMPOSITION

Three legal entities independent from each other and each established in a different country as follows:

- **at least one** independent legal entity established in a **Member State** and

- **at least two** other independent legal entities, each established in different **Member States or Associated countries**

Gender Equality Plan (GEP)

Participants that are **public bodies, research organisations or higher education establishments from Members States and Associated countries** must have a gender equality plan, covering minimum process-related requirements.

- A **self-declaration** at proposal stage

- GEP **must be in place** at the time of the Grant Agreement signature

Eligibility – Annex B of HE General Annexes

Eligibility Restrictions for Participation

apply to ER3/IR2 actions which are "*subject to restrictions for the protection of European communication networks*":

- Entities assessed as **high-risk suppliers of mobile network communication equipment** (and any entities they own or control) are **not eligible to participate** as beneficiaries, affiliated entities and associated partners.

- The **assessment criteria** are set out in **Annex B of HE General Annexes**, focusing on factors like ownership, cybersecurity practices, and security risks.

- Entities assessed as "high-risk suppliers", are currently set out in the second report on Member States' progress in implementing the EU toolbox on 5G cybersecurity of 202317 and the related Communication on the implementation of the 5G cybersecurity toolbox of 202318.

- **Exceptions may be requested** from the granting authority and **will be assessed case-by-case**, taking into account the criteria provided for in the 5G cybersecurity toolbox, the security risks and availability of alternatives in the context of the action.

Eligibility – Annex B of <u>HE General Annexes</u>

Who is eligible for funding?

EU COUNTRIES

- EU Member States (MS) including their outermost regions

- The Overseas Countries and Territories (OCTs) linked to the MS.

NON-EU COUNTRIES

- Countries associated to Horizon Europe (AC)

- Low to middle-income countries

<u>List of Participating countries in HE</u>

SPECIFIC CASES

- Affiliated entities established in countries eligible for funding.

- EU bodies

- International organisations (IO):

  → **International European research organisations are eligible for funding**

  → Other IO are not eligible (only exceptionally if participation is essential)

Eligibility – Annex B of HE General Annexes

Associated Countries

For the purposes of the eligibility conditions, applicants established in Horizon 2020 Associated Countries or in **other third countries negotiating association to Horizon Europe will be treated as entities established in an Associated Country**, if the Horizon Europe association agreement with the third country concerned applies **at the time of signature of the grant agreement**.

The **United Kingdom** and **Canada** are associated to HE Programme (entirely or partially) for award procedures implementing Union budget for the year 2024 and onwards.

Switzerland is expected to become associated. Transitional arrangements apply for award procedures implementing budgetary commitments for the year 2025 and onwards.

Eligibility – Annex B of <u>HE General Annexes</u>

Which activities are eligible?

Eligible activities are the ones described in the call conditions

Activities must **focus exclusively on civil applications**

Activities **<u>must not</u>**:

→ aim at human cloning for reproductive purposes;

→ intend to modify the genetic heritage of human beings which could make such changes heritable (except for research relating to cancer treatment of the gonads, which may be financed);

→ intend to create human embryos solely for the purpose of research, or for the purpose of stem cell procurement, including by means **of somatic cell nuclear transfer;**

→ lead to the destruction of human embryos.

SESAR 3 JU topics guarantee an **exclusive focus on civil applications, even if the military is considered** (e.g. topics on civil–military interoperability and coordination)

Maximum funding rates

Call	Type of action	Funding rate
Exploratory Research ER-03	Research and innovation action (RIA)	100%
Industrial Research IR-02	Research and innovation action (RIA)	70% *
Industrial Research IR-02	Innovation action (IA)	70% *
Industrial Research IR-02	Coordination and support action (CSA)	70% *

for all types of legal entities

Specific call conditions

Bi-Annual Work Programme (BAWP) 2024-2025 – ANNEX III

→ Award criteria

→ Additional dissemination and exploitation obligations

Max project duration

- DES CALL **ER-03**: **30 months** _including 6-months_ at the end of the project for CDE activities

- DES CALL **IR-02**: **36 months**

⚠️ The integration of gender dimension is not a mandatory requirement

Standard evaluation process

NEW

Individual evaluation	Consensus meetings	Hearings	Panel review	Finalization

Individual evaluation

Experts assess proposals **individually**. Minimum of three experts per proposal.

Consensus meetings

All individual experts discuss together to agree on a **common position**, including comments and scores for each proposal.

Hearings

Only for DES call IR-02

All applicants are invited to participate to the **hearing** step that will support the evaluation committee.

↓

ATS Platforms WA 3.1 and WA 4.1

Panel review

The panel of experts reach an **agreement** on the scores and comments for all proposals within a topic, checking **consistency across the evaluations**.

If necessary, resolve cases where evaluators do not agree.

Rank proposals with same score

Finalization

Results of the experts' evaluation are reviewed and the **final ranking list** is put together.

European Commission

| 77

Standard evaluation process: hearings **NEW**

Only for **DES call IR-02** Topics on ATS platforms (WA 3.1 and WA 4.1)

WHY?

1. **clarify** specific **elements of the proposals** and provide the necessary clarifications to allow the evaluation panel to establish its final assessment and scores, or
2. **enhance** the evaluation committee's **understanding** of the proposals to ensure a thorough and accurate evaluation.

HOW?

hearings **will take place** during the Central Evaluation phase. All proposals will be invited. However, participation is **facultative** and applicants who choose not to participate will **not be penalised**. Whether or not applicants participate in the hearings, the <u>written proposal remains the primary basis for evaluation</u>.

Ethics review

For all activities funded, ethics is an **integral part** of research from beginning to end, and **ethical compliance** is essential to achieve real research excellence. An ethics review process is carried out systematically in all HE proposals, based on a **self-assessment** included in the proposal.

Tips to complete the Ethics self-assessment

- Demonstrate **awareness** of potential ethical implications of your proposal
- Complete in **detail the narrative part** (section 4 in part A) to help the screening by the Ethics experts
- Consider **preparatory work** at the proposal stage to save time during project implementation

Table of contents

Section	Title	Action
1	General information	Show
2	Participants	Show
3	Budget	Show
4	Ethics and security	Show
5	Other questions	Show

< Budget

Table of conte

Administrative forms

Proposal ID **SEP-211141898**
Acronym **TEST**

4 - Ethics & security
Ethics Issues Table

1. Human Embryonic Stem Cells and Human Embryos		Page
Does this activity involve Human Embryonic Stem Cells (hESCs)?	○ Yes ● No	
Does this activity involve the use of human embryos?	○ Yes ● No	

2. Humans		Page
Does this activity involve human participants?	○ Yes ● No	
Does this activity involve interventions (physical also including imaging technology, behavioural treatments, etc.) on the study participants?	○ Yes ● No	
Does this activity involve conducting a clinical study as defined by the Clinical Trial Regulation (EU 536/2014)? (using pharmaceuticals, biologicals, radiopharmaceuticals, or advanced therapy medicinal products)	○ Yes ● No	

3. Human Cells / Tissues (not covered by section 1)		Page
Does this activity involve the use of human cells or tissues?	○ Yes ● No	

4. Personal Data		Page
Does this activity involve processing of personal data?	○ Yes ● No	
Does this activity involve further processing of previously collected personal data (including use of preexisting data sets or sources, merging existing data sets)?	○ Yes ● No	
Is it planned to export personal data from the EU to non-EU countries?	○ Yes ● No	
Is it planned to import personal data from non-EU countries into the EU or from a non-EU country to another non-EU country?	○ Yes ● No	
Does this activity involve the processing of personal data related to criminal convictions or offences?	○ Yes ● No	

5. Animals		Page

European Commission

Security scrutiny

Security issues will be checked **systematically** in all HE proposals. The checks are based on a **self-assessment** included in the proposal. The focus is on:

- Whether the proposal uses or generates **EU classified information**
- Potential of **misuse** of results (that could be channeled into crime or terrorism)
- Whether activities involve information or materials subject to **national security restrictions**

Self-assessment may trigger an in-depth security scrutiny

Table of contents

< Budget

Table of conter

Administrative forms

Proposal ID   SEP-211141898
Acronym   TEST

Section	Title	Action
1	General information	Show
2	Participants	Show
3	Budget	Show
4	Ethics and security	Show
5	Other questions	Show

Security issues table

1. EU Classified Information (EUCI)[2]		Page
Does this activity involve information and/or materials requiring protection against unauthorised disclosure (EUCI)?	Yes ● No	
Does this activity involve non-EU countries which need to have access to EUCI?	Yes ● No	

2. Misuse		Page
Does this activity have the potential for misuse of results?	Yes ● No	

3. Other Security Issues		Page
Does this activity involve information and/or materials subject to national security restrictions? If yes, please specify: (Maximum number of characters allowed: 1000)	Yes ● No	
Are there any other security issues that should be taken into consideration? If yes, please specify: (Maximum number of characters allowed: 1000)	Yes ● No	
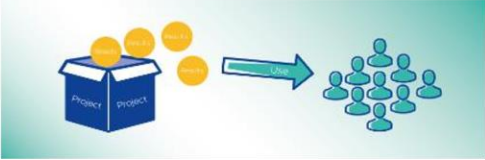
Security self-assessment   ?

Please specify: (Maximum number of characters allowed: 5000)

Remaining characters   5000

European Commission

Dissemination & Exploitation: why?

To maximise the **IMPACT** and benefit society as a whole!

Communication	Dissemination	Exploitation	
Reach out to society and show the impact and benefits of EU-funded R&I activities, e.g. by addressing and providing possible solutions to fundamental societal challenges.	**Transfer knowledge & results** with the aim to enable others to use and take up results, thus maximising the impact of EU-funded research.	**Effectively use project results** through scientific, economic, political or societal exploitation routes aiming to turn R&I actions into concrete value and impact for society.	Objective
Inform about and promote the project AND its results/success.	**Describe** and **ensure results available** for others to **USE** ➡ focus on results only!	**Make concrete use** of research results (not restricted to commercial use.)	Focus
Multiple audiences beyond the project's own community incl. media and the broad public.	Audiences that may take an interest in the potential **USE** of the results (e.g. scientific community, industrial partner, policymakers).	People/organisations including project partners themselves that make concrete use of the project results, as well as user groups outside the project.	Target Audience

Measures to maximise impact

> **Dissemination, exploitation and communication**
>
> **To include a draft CDE plan in proposal is an admissibility condition**

- All measures should be **proportionate** to the scale of the project, and should contain **concrete actions** to be implemented both **during and after** the end of the project

> **Open Science**
>
> **Open science is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the process.**

- Mandatory immediate **Open Access to publications**: beneficiaries must retain sufficient IPRs to comply with open access requirements;

- Data sharing as 'open as possible, as closed as necessary': mandatory **Data Management Plan** for FAIR (Findable, Accessible, Interoperable, Reusable) research data

SESAR 3 DIGITAL EUROPEAN SKY LEGAL AND FINANCIAL ASPECTS OF GRANTS - KEY MESSAGES

Emanuela FLORA

Overview of types of participants

Beneficiary
- Signs the project
- Has all rights and obligations

Affiliated entity
- With a legal or capital link with the beneficiary
- Does work and may declare costs

Third party providing contributions
- Does NOT do work just give in-kind contributions
- The beneficiary may declare the costs of the contributions

Associated partner
- Does work but can NOT declare costs

Subcontractor
- Does work and invoices the beneficiary
- The beneficiary may declare the invoice

Affiliated entities (AE)

Article 187 (1)(b) of the EU Financial Regulation:

Entities *'that have a <u>link with the beneficiary</u>, in particular a legal or capital link, which is <u>neither limited to the action nor established for the sole purpose</u> of its implementation'.*

Article 8 MGA – Lump Sum Grants

- ✓ Affiliated entities can charge **lump sum contributions (=share of the lump sum)** under the same conditions as beneficiaries

- ✓ Their tasks must be set out in **the Proposal** as well their lump sum contributions in **the Detailed Budget Table**

Associated Partners (AP)

Article 9.1 MGA – Lump Sum Grants

Must be identified in Article 9.1, their tasks must be mentioned in Annex 1

Features:

✓ **Participate at its own costs**

✓ It can be linked:

- either to one beneficiary

- or with the whole consortium

The beneficiaries must ensure that MGA obligations apply to AP

Writing a lump sum proposal

- To write a lump sum proposal, you:

  - Use the **part B template that is available in the F&T portal**

  - Present the objectives and methodology of your project and address the expected outcomes and impacts as in any other HE proposal

  - Describe in detail the activities covered by each work package.

- To define and justify the lump sum, you need to provide a **detailed budget table** with cost estimations.

- The detailed budget table is an **Excel file**. You must download it from the online submission system, fill it and submit it as an annex to the Part B of your application form.

Lump Sum in project design – Work packages

Work package distribution

As many as needed but no more than what is manageable

A work package (WP) is a major sub-division of the work plan of your project.

- A single activity is not a WP
- A single task is not a WP
- A % of progress is not a WP (e.g. 50 % of the tests)
- A lapse of time is generally not a WP (e.g. activities of year 1)

Work packages with a long duration **may be split along the reporting periods** (e.g., Management, Dissemination and Exploitation, etc.). In this way, the relevant activities can be paid at the end of the reporting period.

Splitting work packages – example

Single long-duration work package on 36 months duration project

WP no	WP name	YEAR 1												YEAR 2												YEAR 3											
		Reporting Period (RP) 1																								Reporting Period (RP) 2											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
WP1	Management																																				

Splitting *

Split work packages, same content

WP no	WP name	YEAR 1												YEAR 2												YEAR 3											
		Reporting Period (RP) 1																								Reporting Period (RP) 2											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
WP1	Management (RP1)																																				
WP2	Management (RP2)																																				

* Splitting WPs along the boundaries of reporting periods allows activities to be reimbursed at intermediate payments (**ER-03 T0+12 months; IR-02 T_0+18 months**)

* In case the resulting work packages have the same tasks, there is **no need to repeat** the same description for each split work package in the proposal (part B, table 3.1b).

Splitting WPs is entirely **optional**. It should be used if needed to **optimise the cash flow**

Lump Sum in proposal budgeting

- The **detailed Budget Table** provides **cost estimations for each cost category** per beneficiary (and affiliated entity if any) and per Work Package.

- Cost estimations must be an **approximation of the actual costs.** They:

  - are subject to the same **eligibility rules** as in actual costs grants
  - must be **in line with your normal practices**
  - must be **reasonable / non-excessive**
  - must be **in line with** and **necessary for your proposed activities**.

- The cost estimations are used to generate in the detailed budget table a **breakdown of lump sum shares** per work package and participant

  ⚠️ *An altered detailed budget table might lead to declare a lump sum proposal as inadmissible.*

All costs budgeted as average Cost per ITEM X Number of ITEMS

Coordinator: BE1 - BUDGET SHEET — View Summary — BE1-AE2

COST CATEGORY	ITEMS	COST PER ITEM	BE TOTAL COSTS	ITEMS	COST PER ITEM	AE TOTAL COSTS	BE+AE TOTAL COSTS
COSTS WORK PACKAGE 1: Coordination & Management							
A. DIRECT PERSONNEL COSTS							
A.1 Employees (or equivalent)							
SENIOR SCIENTISTS (or equivalent in the private sector)	3.0	3500	10500.00	15.0	10000	150000.00	160500.00
JUNIOR SCIENTISTS (or equivalent in the private sector)	2.0	3200	6400.00	25.0	8000	200000.00	206400.00
TECHNICAL PERSONNEL (or equivalent in the private sector)			0.00			0.00	0.00
ADMINISTRATIVE PERSONNEL (or equivalent in the private sector)			0.00			0.00	0.00
OTHERS			0.00			0.00	0.00
A.2 Natural Persons under direct contract			0.00			0.00	0.00
A.3 Seconded Persons			0.00			0.00	0.00
A.4 SME owners and natural person beneficiaries	2.0	5080	10160.00		6706	0.00	10160.00
B. DIRECT SUBCONTRACTING COSTS							
	2.0	5000	10000.00	1.0	17857	17857.14	27857.14
C. DIRECT PURCHASE COSTS							
C.1 Travel and subsistence			0.00			0.00	0.00
C.2 Equipment (complete 'Depreciation costs' sheet)							
Equipment			0.00			0.00	0.00
Infrastructure			0.00			0.00	0.00
Other assets			0.00			0.00	0.00
C.3 Other goods, works and services							
Consumables			0.00	1.0	0	0.00	0.00
Services for meetings, seminars			0.00			0.00	0.00
Services for dissemination activities (including website)			0.00			0.00	0.00
Publication fees			0.00			0.00	0.00
Other (shipment, insurance, translation, etc.)			0.00			0.00	0.00
D. OTHER COST CATEGORIES							
D.1 Financial support to third parties (if applicable in the topic specific conditions)			0.00			0.00	0.00
D.2 Internally invoiced goods and services			0.00			0.00	0.00
D.3 Transnational access to research infrastructure item costs (if mentioned as eligible in the topic specific			0.00			0.00	0.00
D.4 Virtual access to research infrastructure item costs (if mentioned as eligible in the topic specific conditions)			0.00			0.00	0.00
D.5 PCP/PPI procurement costs (if mentioned as eligible in the topic specific conditions)			0.00			0.00	0.00
TOTAL DIRECT PERSONNEL COSTS AND PURCHASE COSTS (A+C)			27060.00			350000.00	377060.00
TOTAL DIRECT COSTS (A+B+C+D)			37060.00			367857.14	404917.14
E. INDIRECT COSTS (25% * (A+C))			6765.00			87500.00	94265.00
F. TOTAL COSTS (A+B+C+D+E)			43825.00			455357.14	499182.14
COSTS WORK PACKAGE 2: Feasibility Analysis							
A. DIRECT PERSONNEL COSTS							
A.1 Employees (or equivalent)							

Tabs: Instructions | BE list | WP list | Lump sum breakdown | Person-months overview | Summary per WP | BE1 | BE...

- Complete **one 'BEx' sheet per beneficiary**. This sheet includes one separate section for each work package. For each work package, enter the cost estimations under each cost category used.

- Enter only the **number of units** and the **cost per unit** for each cost category (yellow cells). The total costs per cost category is calculated automatically.

- For the cost per unit, enter only **whole numbers** (integers)

- If the beneficiary does not contribute to a specific work package, leave the cells empty.

Chose the correct funding rate!

ER-03 → 100%

IR-02 → **70%**
for **all beneficiaries** regardless their status

Detailed Budget table vs. Part B tables

CONSISTENCY

Subcontracts

Please insert the cost of subcontracts in the **Application Form – Part B**
Table 3.1g: 'Subcontracting costs' items and **Detailed Budget Table**

Purchases

Please insert the cost of Purchase costs in the **Application Form – Part B**

Table 3.1h: 'Purchase costs' items *(travel and subsistence, equipment and other goods, works and services)* and **Detailed Budget Table**

Detailed Budget table vs. Part A Budget

CONSISTENCY

ESTIMATED BREAKDOWN OF THE LUMP SUM

BENEFICIARIES \ WORK PACKAGES	WP1 Management	WP2 RESEARCH	WP3 DEMO	Total	Pct %
BE1: Build Consulting SCS	30,677.50	103,697.50	65,625.00	200,000.00	12.90%
> BE1-AE2: Test Camelia-Valeria	318,750.00	131,250.00	0.00	450,000.00	29.03%
BE3: Test France	141,173.88	50,898.69	7,927.44	200,000.00	12.90%
BE4: Sunline Team Tamasz	315,000.00	0.00	385,000.00	700,000.00	45.16%
Total:	805,601.38	285,846.19	458,552.44	1,550,000.00	100.00%
Percentage:	51.97%	18.44%	29.58%	100.00%	

3 - Budget

No	Name of Beneficiary	Country	Role	Requested grant amount	Income generated by the action	Financial contributions	Own resources	Total estimated income
1	Build Consulting SCS	BE	Coordinator	200 000.00	0	0	0	200 000.00
	Total			200 000.00	0	0	0	200 000.00

Besides the funding rate %, the requested EU grant will have to be **equal to or less** than the costs in the Lump Sum Breakdown (Excel detailed budget table)

Budget in the Grant Agreement – Annex 2

For funded proposals, the estimated costs are transformed into **lump sum shares** and are **fixed in the grant agreement for each work package** (Annex 2, 'Estimated lump sum breakdown)

	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	Total
Beneficiary A	250.000			50.000	300.000	250.000		300.000	1.150.000
Beneficiary B		250.000	350.000	50.000			100.000	150.000	900.000
Beneficiary C	100.000	100.000		50.000		280.000			530.000
Beneficiary D		120.000		50.000			100.000	150.000	420.000
Total	350.000	470.000	350.000	200.000	300.000	530.000	200.000	600.000	**3.000.000**

Shares of the lump sum per beneficiary

Shares of the lump sum per WP

Lump sum = Maximum grant amount

Budget transfers between work packages and/or partners require an **amendment** if the consortium wants to reflect them in the grant agreement.

Evaluation of a lump sum proposal

Your proposal will be evaluated by independent experts against the <u>standard evaluation criteria</u>

excellence, impact and implementation

The **cost estimations** are assessed against the proposed activities under the **implementation** criterion.
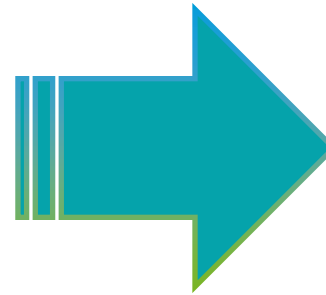
Experts will:
- ✓ ensure that the cost estimations are **reasonable and non-excessive**
- ✓ evaluate whether the proposed resources and the split of the lump sum **allow completing the activities** described in the proposal.

Experts make **precise recommendations** on the basis of which the <u>lump sum amount and the lump sum breakdown will be modified</u> during the grant agreement preparation (GAP)

Cost estimations that are clearly over or under-estimated might lead exceptionally to a **decreased score.**

Horizon dashboard for lump sum evaluations

- Evaluation experts must use the dashboard as an orientation to ensure that budgets are reasonable and non-excessive.

- For each combination of country and organisation type selected, the dashboard displays the distribution between the 20th and the 80th percentile, and the median personnel costs.

- Based on grants signed from 2022

- Applicants justify high personnel costs in the 'Any comments' tab of the Excel detailed budget table.

Access the dashboard here
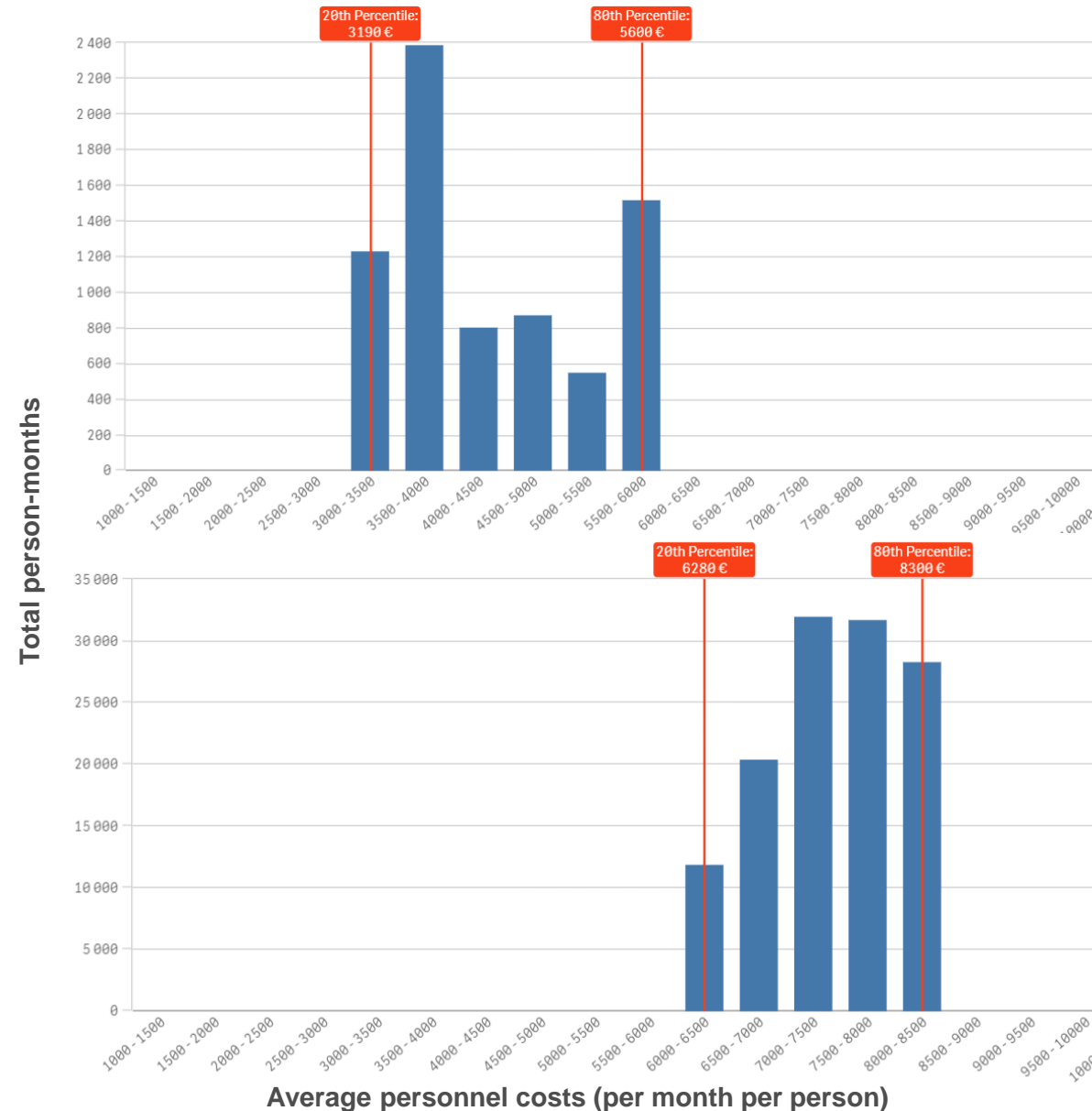
Personnel costs for **Research Organisations** in **Romania**

Personnel costs for **Research Organisations** in **Germany**

Payment schedule

Types of payments:

Pre-financing payment

- Same function and same rules as for other grants

- Coordinator distributes the amount according to consortium agreement

Interim payment

- One or more

- We pay the **shares of the lump sum set out in Annex 2** for the work packages completed & approved in the reporting period

Payment of the balance

- Closes the financial aspects of the grant

- **Partial payment for partially completed WPs possible**

- Releases the amount retained for the Mutual Insurance Mechanism

ER-03
first RP is T_0+12 months
final RP T_0+30 months

IR-02
first RP is T_0+18 months
final RP is T_0+36 months

Resources available

One dedicated **lump sum page** on the Funding &Tenders Portal with:

Video tutorials	• Overview of lump sum funding • Detailed budget table • Horizon dashboard for lump sum evaluations
Guidance documents	• What do I need to know? & Quick guide • Frequently asked questions • Detailed guidance for participants • Lump sum briefing slides for experts
Reference documents	• Model Grant Agreement Lump Sum • Decision authorising the use of lump sum contributions under the Horizon Europe Programme
Events	• **Next event on 27 March 2025 available here** • Past events and recordings

SESAR 3 DIGITAL EUROPEAN SKY TIPS & TRICKS FOR PROPOSAL SUBMISSION
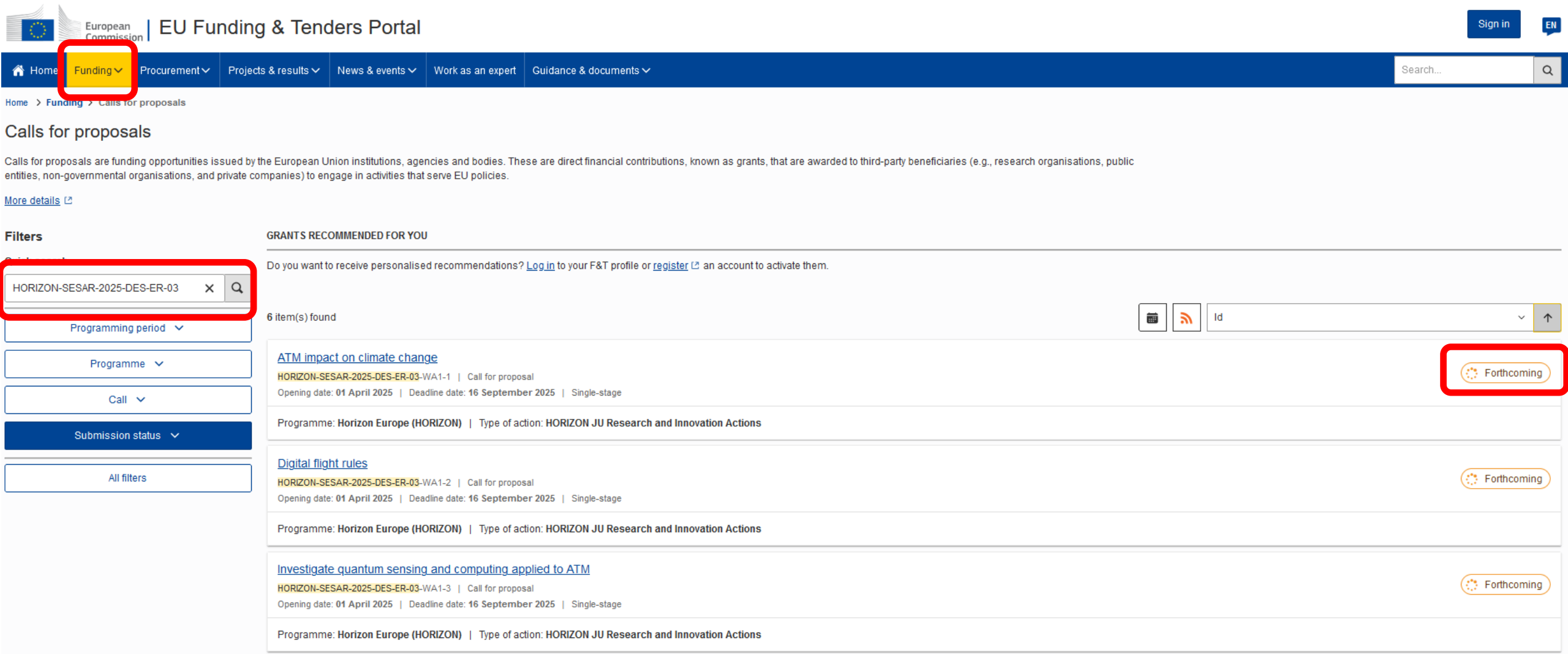
Emanuela FLORA

Available Information /1

All relevant call documentation is available on the Funding & Tenders opportunities

Click on any of the topics

Available Information /2

Available Information /3

All relevant documentation

Call documents:

SESAR 3 Joint Undertaking Bi-Annual Work Programme (BAWP) 2024-2025 - Annex III ⬈

Application form templates

Standard application form (HE RIA, IA) ⬈ - *please note that only Part A of this template is applicable for this call. For Part B, see below.*

SESAR 3 application form (RIA, IA) - Part B ⬈ - *this application form specific for this call is available in the Submission System*

Detailed budget table (HE LS) ⬈   **NEW**

Evaluation form templates

Standard evaluation form (HE RIA, IA) ⬈ - *will be used with the necessary adaptations based on specific award criteria (see BAWP, Annex III, section 1.4).*

Guidance

HE Programme Guide ⬈

Model Grant Agreements (MGA)

Lump Sum MGA ⬈   **NEW**

Call-specific instructions

Guidance: "Lump sums - what do I need to know?" ⬈

Additional documents:

SESAR 3 Joint Undertaking Multi-Annual Work Programme (MAWP) 2022-2031 ⬈

SESAR 3 Project Handbook ⬈

Finding Support /1

Finding support /2

Get support

Please read carefully all provisions below before the preparation of your application.

SESAR 3 JU Call Helpdesk info-call@sesarju.eu

Online Manual is your guide on the procedures from proposal submission to managing your grant.

Horizon Europe Programme Guide contains the detailed guidance to the structure, budget and political priorities of Horizon Europe.

Funding & Tenders Portal FAQ – find the answers to most frequently asked questions on submission of proposals, evaluation and grant management.

Research Enquiry Service – ask questions about any aspect of European research in general and the EU Research Framework Programmes in particular.

National Contact Points (NCPs) – get guidance, practical information and assistance on participation in Horizon Europe. There are also NCPs in many non-EU and non-associated countries ('third-countries').

Enterprise Europe Network – contact your EEN national contact for advice to businesses with special focus on SMEs. The support includes guidance on the EU research funding.

IT Helpdesk – contact the Funding & Tenders Portal IT helpdesk for questions such as forgotten passwords, access rights and roles, technical aspects of submission of proposals, etc.

In Summary

- ✓ Read all relevant documentation on the Participant Portal

- ✓ Follow the proposal templates (in particular Part B and <u>Excel budget table</u>)

- ✓ Plan resources adequately and in line with the objectives to achieve

- ✓ Cover all evaluation criteria and subcriteria (ref. Standard evaluation form)

- ✓ Remind that CDE activities and impact under HE is of a high importance

Electronic submission

Prepare your proposal

- **Part A** Administrative forms → on-line

- **Part B** Technical proposal → pdf file to be uploaded

- **Excel budget table** → excel file to be uploaded **NEW**

Submit the proposal well before the deadline

DO NOT WAIT FOR THE LAST MINUTE!

Need support?

SESAR 3 JU calls email info-call@sesarju.eu

On-line Manual user guide

Join at
slido.com
#1604 954