



# SESAR – Digital Remote Tower Solutions. V3 Validation Objectives and transition to deployment

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Founding Members

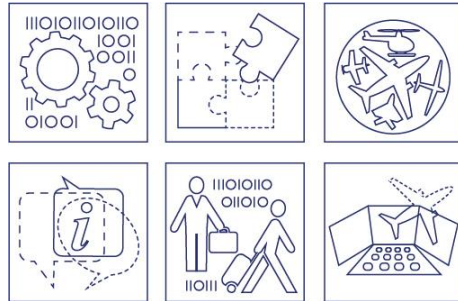
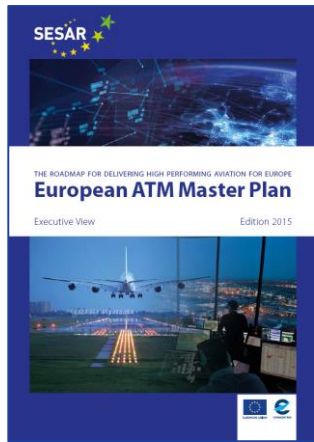


EUROPEAN UNION



EUROCONTROL

# The SESAR 2020 pipeline to innovation



## 3 research strands

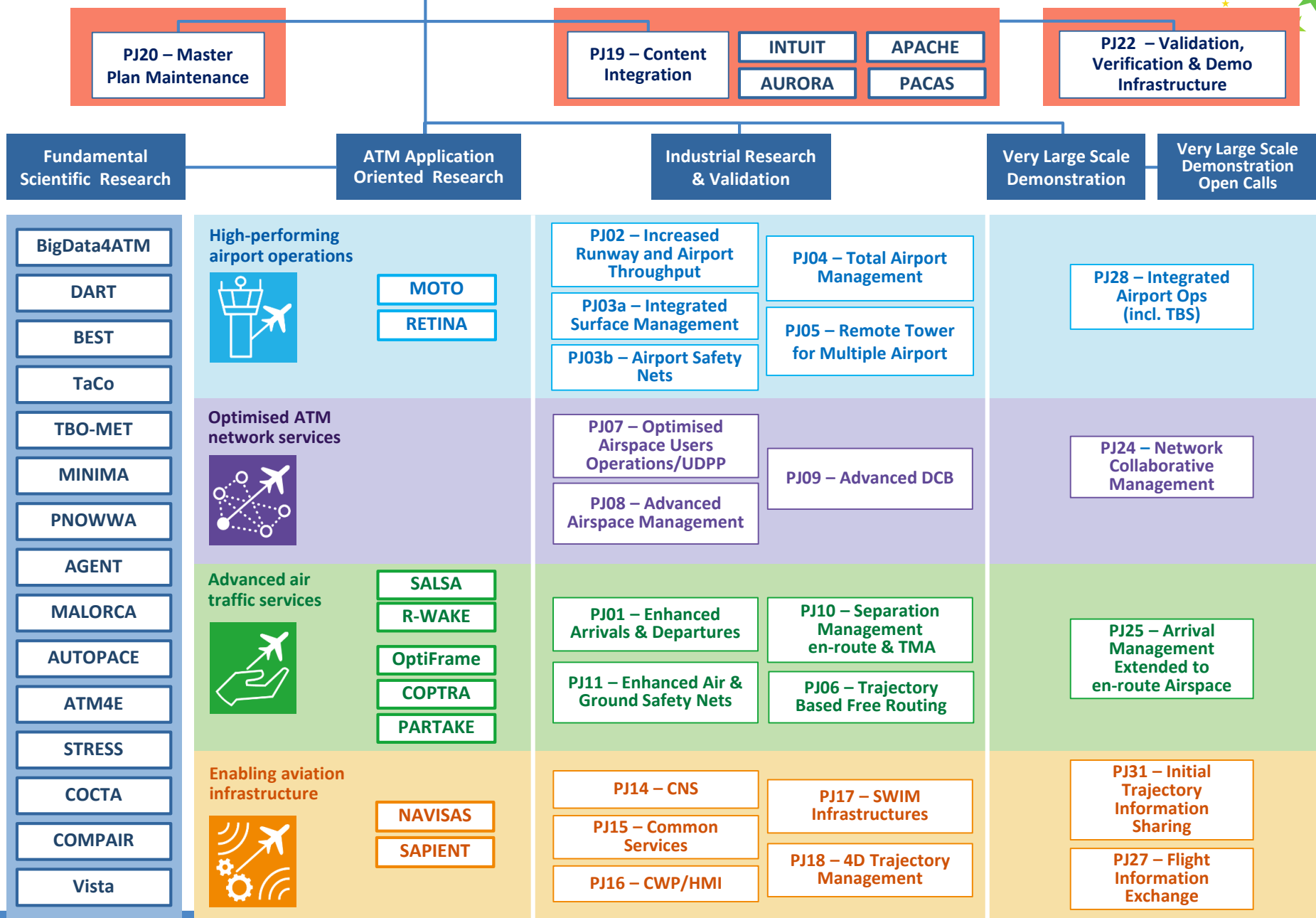


**Budget:** EUR 1,6 billion  
**Timeline:** 2016-2024  
**Calls:** open and closed



Visit the SESAR Solution portal: [sesarju.eu/activities-solutions](https://sesarju.eu/activities-solutions)

# SESAR 2020



# SESAR lifecycle



# Solution-Oriented Approach

## What is a SESAR Solution?

**SESAR Solution:** Programme output of R&I activities which relates to either an operational or a technological improvement which have been designed, developed and validated in response to performance needs identified in the European ATM Plan.

There are two types of SESAR Solutions:

- SESAR ATM Solutions
- SESAR Technological Solutions

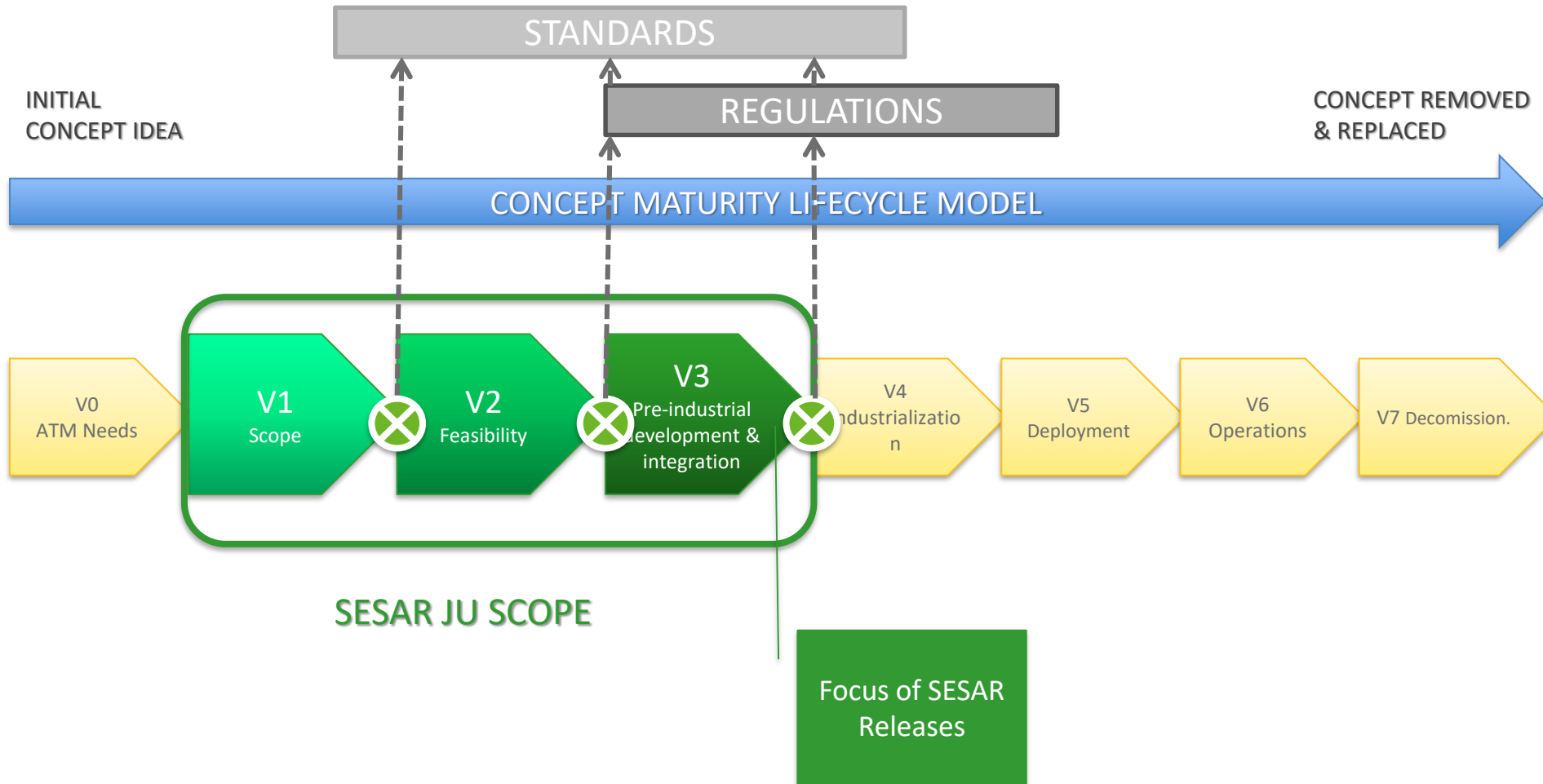


# Validation and Standards/Regulations



## GATES

The maturity assessments establish whether the needs for standardization and regulation are adequately justified and whether material is sufficiently developed and mature to support the standardisation and regulatory process in the next phase



# analogy between this solution and the development of a super car



## V1 SCOPE

- Identification of operational/technical solutions to meet performance targets.
- Identification of benefit mechanisms
- Scope of potential applicability
- Initial cost estimates to justify R&D.
- Identification of major research and development issues/needs (R&D needs)

# analogy between this solution and the development of a super car



## V2 FEASIBILITY

- **Elaboration and development of the operational concept**
- **Validation in representative operational contexts to establish the concept's actual applicability**
- **Performance, operability and acceptability of operational aspects are primary concerns**
- **Operational procedures (nominal / non-nominal conditions) and operational requirements are stable.**
- **Human and technology integration and phraseology / information exchange requirements are defined**



# analogy between this solution and the development of a super car



## V3 PRE-INDUSTRIAL DEVELOPMENT & INTEGRATION

- Further develop and refine concepts to prepare their transition from research to an operational environment
- Validate that concepts can work coherently together and deliver the required benefits
- Establish that they can be integrated into the target ATM system.
- V3 requires integration of pre-industrial prototypes in representative system platforms.

# analogy between this solution and the development of a super car

V4 Industrialization

V5 Deployment

V6 Operations

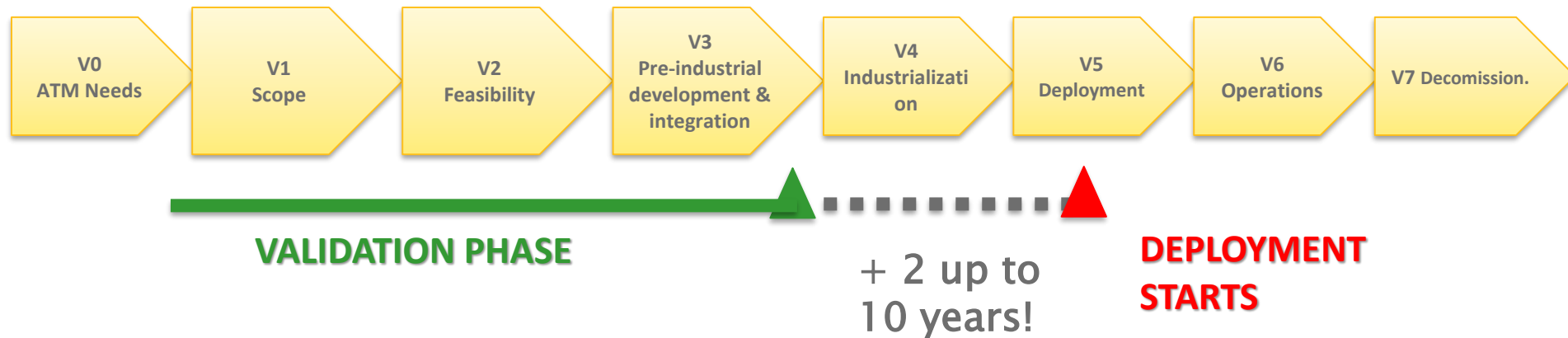


# Concept Maturity Lifecycle

INITIAL  
CONCEPT IDEA

CONCEPT  
REMOVED &  
REPLACED

## CONCEPT MATURITY LIFECYCLE MODEL



# From Validation to Deployment



- ✓ SESAR-JU develop technologies and procedures (“SESAR SOLUTIONS”) for a new ATM system at End of V3 maturity level
- ✓ Validation results and SESAR Solution datapacks contain the main output of SESAR activities to feed the development/update of standards and regulations
  
- Industrialization and deployment of SESAR technologies and procedures is the natural sequence of their development and validation by the SESAR-JU  
(IT MAY TAKE LONGER THAN THE VALIDATION PHASE)
- SESAR deployment must be:
  - Performance driven
  - Synchronised: NOT ALWAYS REQUIRED



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Thank you very much  
for your attention!



Founding Members

