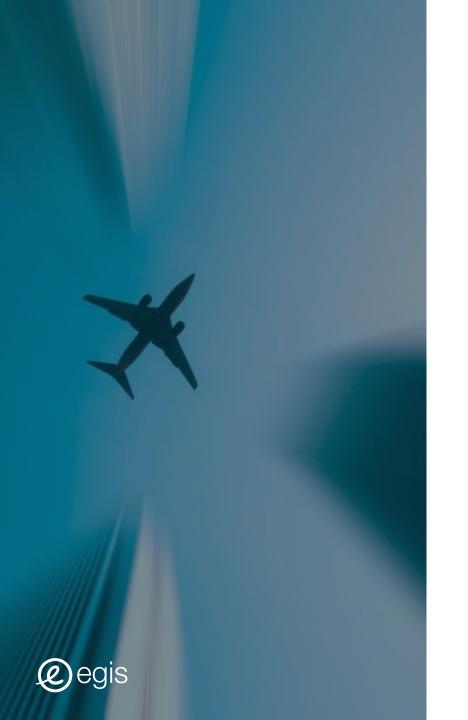




# Military and U-space: Guidelines

SC4 Kick-off meeting | 20 December 2023

IMAGINE
CREATE
ACHIEVE
a sustainable future



- 1 . 9.30 Welcome and round table
- 2 . 9.40 Contractual aspects
- **3** 9.50 Study presentation
- 4 . 10.30 Documents review
- 5 . 10.50 Closure of the KOM





# **Contractual aspects**

#### **Contractual structure**



#### Signed on 15 December 2023:

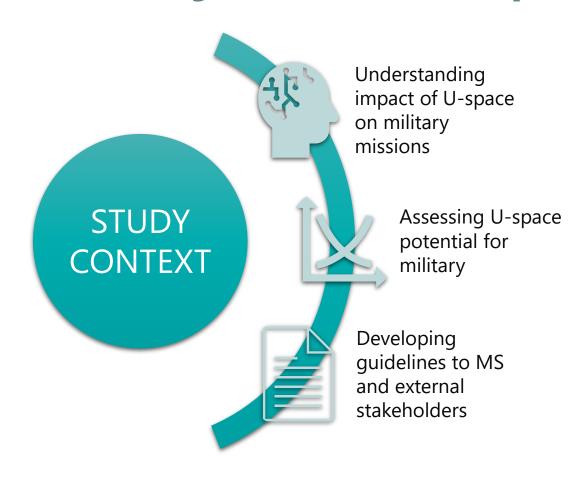
- Framework contract N°20.ISE.OP.305 for the provision of the study "Military and U-Space: Guidelines"
- Specific Contract N°1 (SC1) N°20.ISE.SC.261 implementing framework contract N°20.ISE.OP.305 (completed)
- Specific Contract N°2 (SC2) N°20.ISE.SC.310 implementing framework contract N°20.ISE.OP.305 (on-going)
- Specific Contract N°3 (SC3) N°22.ISE.SC.059 implementing framework contract N°20.ISE.OP.305 (completed)
- Specific Contract N°4 (SC4) N°23.ISE.SC.053 implementing framework contract N°20.ISE.OP.305





# **Overall framework objectives**

### Assisting EDA and its MS in establishing a common view on U-space development





### **Achievements so far**

**SC1** achievements – Need for cooperation

Military will be impacted by U-space

Proposed recommendations to minimise impact

Proposal for Common Military View

Suggested areas for further work by EDA



### **Achievements so far**

SC3 achievements – Limitations of U-space mechanisms for segregation

Electronic conspicuity to applicable to all military flights

Dynamic Airspace Reconfiguration only in controlled airspace

Proposal for FUA-like processes in low-level airspace

Additional Use Cases to SC1 D1



# **SC4** objectives

# Perform a comparative assessment of possible roles that military could play in U-space (more or less integration in the overall U-space ecosystem)

Consider the different possible U-space architectures (with or without a single CISP)

Take into account ability of military systems to exchange information with U-space

Assess the costs associated with the different business models under consideration

Support the dissemination of SC4 results towards MS and external stakeholders



### Task 1: analysis of possible roles of military in U-space

#### Task 1.1: development of operational scenarios

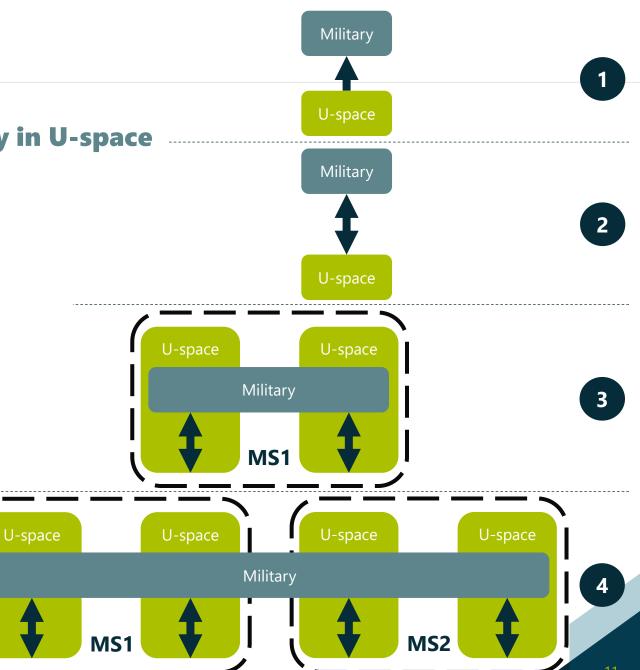
- Define possible roles that military could adopt in U-space:
  - 1 Consumer of U-space services
  - **2** Provider of information to CIS/CISP
  - 3 National USSP
  - 4 Pan-European USSP
- Possibly supported by interviews with selected MS (e.g. Spain, Belgium, Germany, France?)

#### Task 1.2: development of assessment criteria

#### Task 1.3: multi-criteria options analysis

■ Baseline=current role as UAS geo-zone manager





#### Task 2: business model for a military USSP

#### Task 2.1: description of current military organisations

- Functional and general depiction of how Armed Forces are currently organised, with a focus on Air Forces
- Could lead to a few descriptions if several models emerge

#### Task 2.2: benchmark of civilian ANSP organisations

- Performed similar assessment for ANSPs adopting a role in U-space
- Targeted countries: Spain, Belgium, Germany, Italy, Poland, and possibly Romania, Bulgaria

#### Task 2.3: definition of possible business models

- Transcribe operational scenarios from Task 1 into organisational models from Task 2.1
- Also highlights changes to existing functions (e.g. ASM)



#### **Task 3: impact on system interfaces**

#### Task 3.1: information exchange requirements

- Define needs for exchanges of information in each operational scenario from Task 1
- Consider both U-space architectures, i.e. single CISP and distributed CIS

#### Task 3.2: high-level technical architecture

- Describe technical architectures supporting each operational scenario
- Helicopter view, at main function or main component level (i.e. traffic surveillance, flight plan processing, etc.)
- For operational scenarios where military would be USSP, also include military U-space system

#### Task 3.3: impact on system interfaces

- Identify needs for updated and new interfaces
- Identify supporting standards, if existing, or need for new standards



#### **Task 4: financial assessment**

Build on financial assessments developed under SC2 and SC3 to describe financial impact of each operational scenario

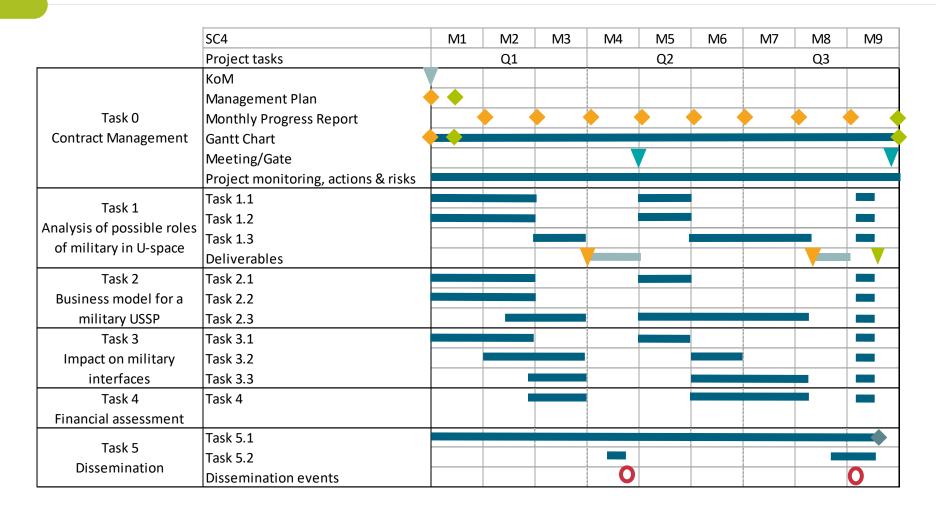
#### **Task 5: dissemination**

Task 5.1: development of communication materials

Task 5.2: support to dissemination events



### **SC4** initial schedule



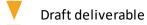




MGT deliverables

Final MGT deliverables

Communication material







Review and comments period

Workshop



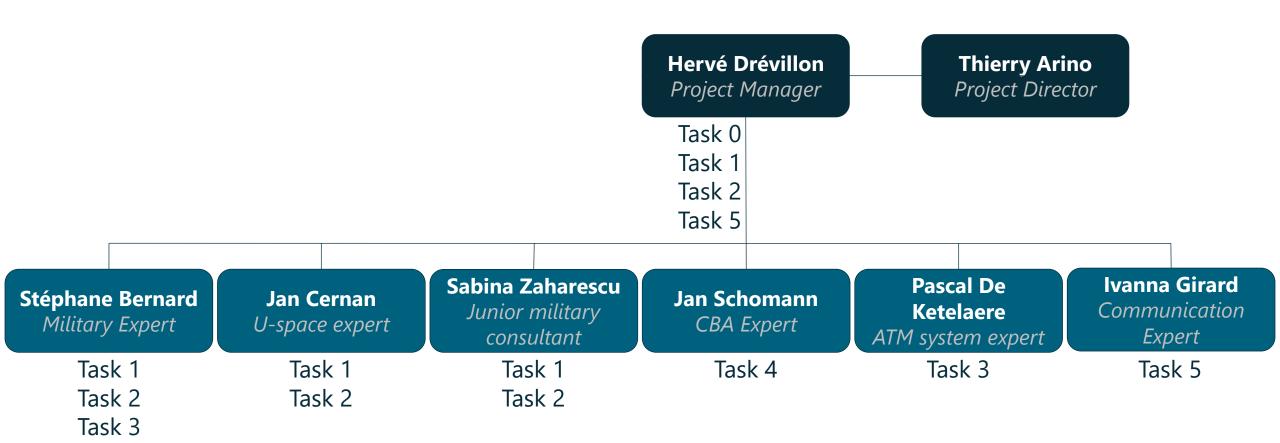
# **SC4 Final Report**

### **Proposed report structure**

- 1. Executive Summary
- 2. Possible roles for the military in U-space and supporting organisation
- 3. Information exchange requirements and impact on system interfaces
- 4. Financial assessment
- 5. Guidelines on the future role military in U-space



# **Team organisation**



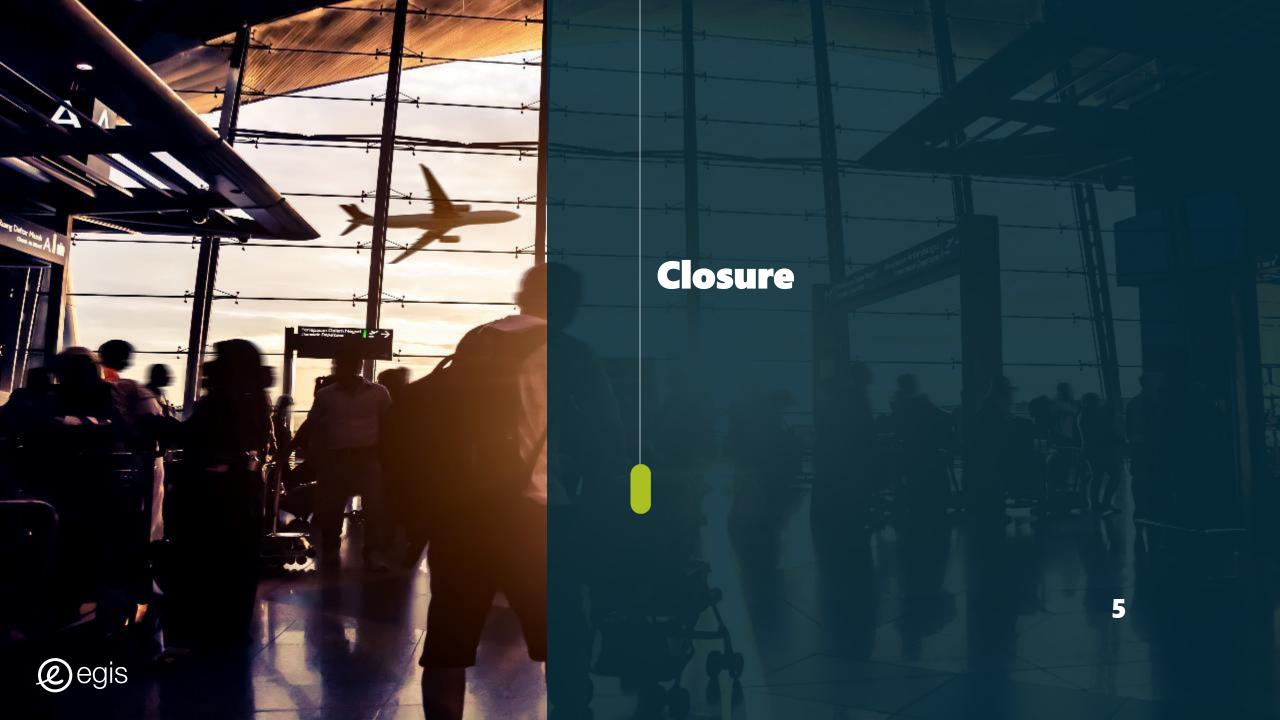




## **Documents review**

**Draft SC4 PMP (see external document)** 





# **Next steps**

- Finalisation of PMP
- Drafting KOM MoM
- Initiation of Tasks 1 and 2
- Delivery of the first Monthly Progress Report (January)



# **Clarification & AOB**



