Tools and Facilities for EUSPA

EUSPA INDUSTRY DAYS WORKSHOP, PRAGUE, 25-26 MARCH 2025

Stephan Wildeboer – Head of IT and Facility Management Department

IT Services overview

➢**Scope**

- EUSPA corporate ICT services, functioning of the ICT part of the EUSPA ITF Department and the related business governance.
- Not applicable to any ICT systems deployed and operated as parts of the European Space Programme, their design choices, operational mode, financing or decision making.
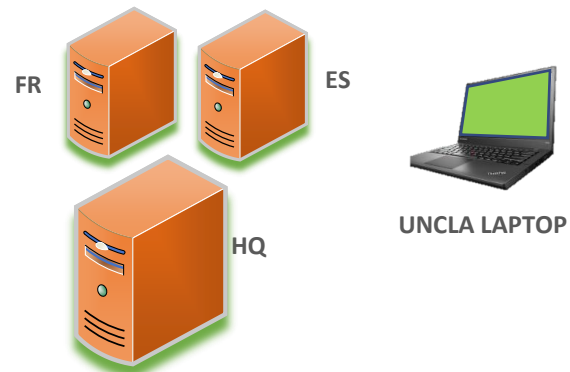- EU Space Surveillance and Tracking (EU SST)

➢**Four main strategic objectives**

- Security and cyber defence
- Business continuity and disaster recovery
- Rationalised architecture and costs
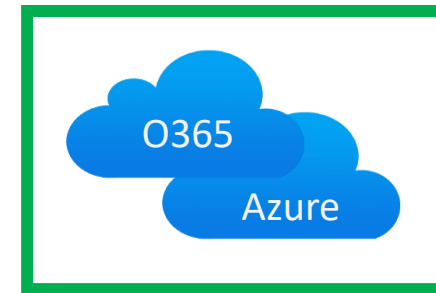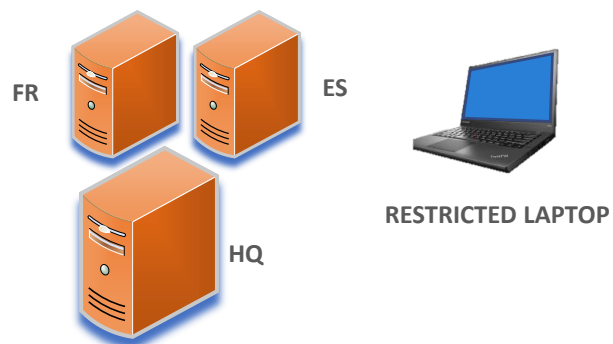- Modernisation and simplification

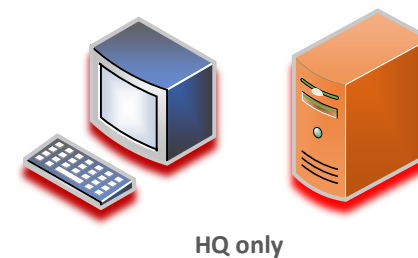# IT Services overview

Main challenges

UNCLA Network

FR ES

HQ

UNCLA LAPTOP

EUSPA cloud

O365

Azure

RESTRICTED Network

FR ES

HQ

RESTRICTED LAPTOP

SECRET Network

HQ only

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Space Surveillance and Tracking

A system of networked sensors to survey and track space objects, together with processing capabilities to provide data, information and services on objects that orbit the Earth.

More than 190 organisations are receiving the SST services (Collision Avoidance, Re-entry Analysis and Fragmentation Analysis) through the EU SST Front Desk at EUSPA, and more than 400 satellites are safeguarded from the risk of collision.

Typical technologies: Linux and Kubernetes

Collision Avoidance
Collision Avoidance (CA) provides risk assessments of potential collisions between spacecraft or between spacecraft and space debris
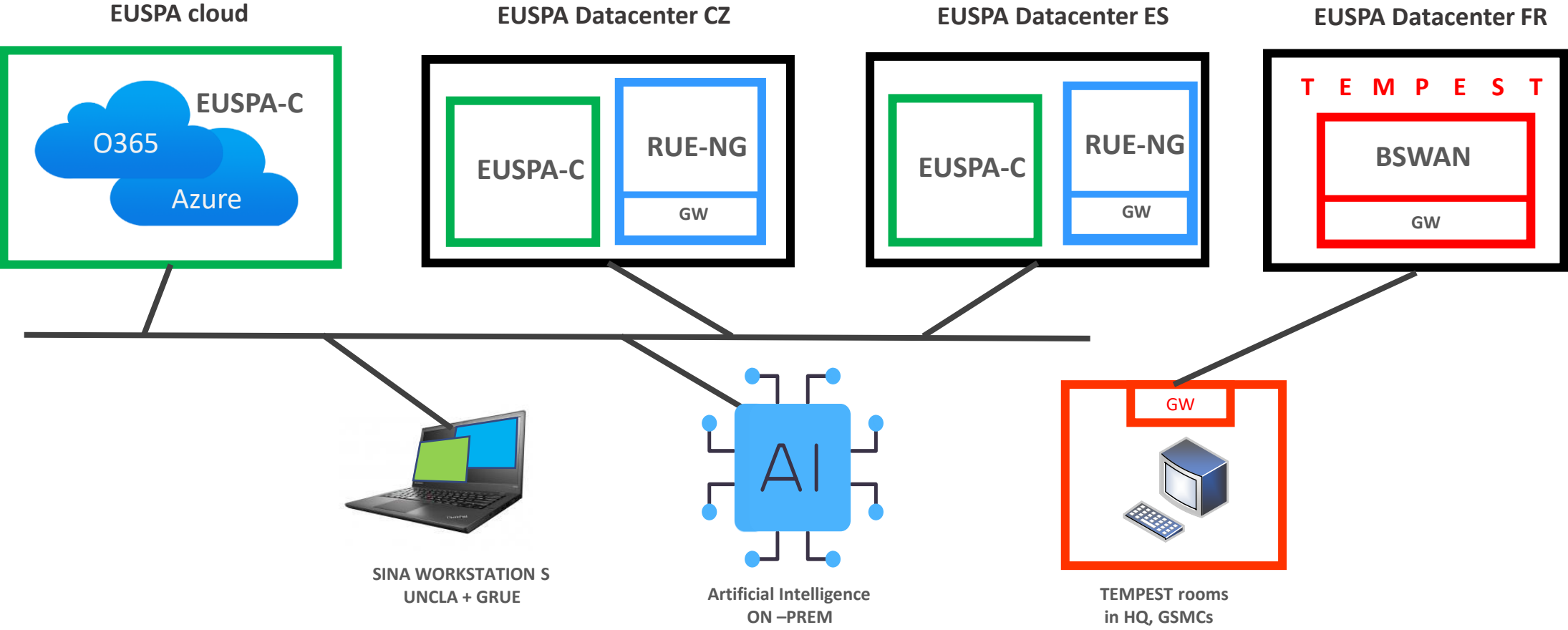
Re-Entry Analysis (RA)
Assesses risk of uncontrolled re-entry of space objects into the Earth's atmosphere and generates related information.

Fragmentation Analysis (FA)
Detects and characterises in-orbit fragmentations, break-ups or collisions, and analyses all available information regarding the object(s) involved in the event.

Where will it be in 5 years?

EUSPA cloud

EUSPA Datacenter CZ

EUSPA Datacenter ES

EUSPA Datacenter FR

EUSPA-C
O365
Azure

EUSPA-C RUE-NG GW

EUSPA-C RUE-NG GW

TEMPEST BSWAN GW

GW

SINA WORKSTATION S
UNCLA + GRUE

Artificial Intelligence
ON –PREM

TEMPEST rooms
in HQ, GSMCs

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Typical procurements IT services & supplies

Procurements in place today:

- **Provision of ICT Support services**; FWC for €25M, signed May 2022 with the scope of management of EUSPA ICT systems in the areas of: ICT systems planning, design, administration, maintenance, security, project management, full scale ICT project delivery, etc.

- **Provision of IT System Administration Support;** FWC for €9M, signed August 2021

- **Provision of Mobile telephony services in the Czech Republic**; FWC for €280k, signed January 2025

- a large IT-related portfolio of services is provided via inter-institutional framework contracts of DG DIGIT, DG SCIC, DG HR.

Equipment and services:

- Hardware (storage, networking, telecom, videoconferencing, endpoint computing equipment and related services – e.g. Dell/EMC, HPE, CISCO, Lenovo, etc.)

- Software acquisition and related services (Microsoft portfolio and others)

- IT Services for ADMIN, GRUE, GSUE and Space Surveillance and Tracking (consultancy on project management, architecture, security, cloud computing, artificial intelligence and other professional services)

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Linking space to user needs

Facility Services

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Facilities Management – EUSPA Sites Overview

- Headquarters in Prague – Move to a new EUSPA HQ – Date TBC

- Galileo Security Monitoring Centre (2 sites in France and Spain)

- Galileo Reference Center (GRC -The Netherlands)

- GNSS Service Centre (GSC - Spain)

- Liaison Bureau - SAR/Galileo Service Centre (SGSC) and EGNOS Centre (Toulouse, France)

Prague HQ in 5 years

- A new EUSPA HQ facilities handed over to EUSPA from the Czech authorities.

- The overall HQ area shall be approximately 3x larger (ca 30k sqm) than the current HQ with a foreseen capacity 550 users with a potential expansion to 700 users

- A new Datacentre shall replace the current DC in Q1/2028, but with a potential earlier handover
  - ☐ TIER 3 (potentially TIER 4), 24/7 secured
  - ☐ Potential procurement areas shall be mainly in IT equipment

Galileo Security Monitoring Center (GSMC FR & ES)

- The Security Operations and Monitoring Department (SOM) undertakes security operations (incl. security monitoring and cyber-defence by the EU Space Security Operations Centre and GALILEO Public Regulated Services (PRS)) and monitoring (incl. performance assessment) of all ground and space elements of the Union Space Programme component.

- The GSMC is thus a 24/7 operational centre, with a Data-Centre component.

- The IT and Facilities Department (ITF) ensures the Facility Management Services for GSMC-stakeholders.

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Galileo Reference Centre (GRC)

Located in Noordwijk, the Netherlands, the Galileo Reference Centre (GRC) is a cornerstone of the Galileo service provision. It provides EUSPA with an independent system to evaluate the quality of the signals in space. In doing so, it helps the Agency to ensure the delivery of high-quality navigation services so users can better rely on and benefit from Galileo.

In the future, an array of secondary functions will be developed in the GRC facility, thus expanding its mission.

Common services at all sites

Expert support in Management of Facilities:

- Highly technical buildings and datacenters
- Very demanding availability and operational criticality
- Secure environment
- Project planning and Service Oriented implementation

Common Facility and Logisitics Services:

- Data Center Management
- Cleaning Management
- Furniture and Office related services
- Food preparation and cafeteria services
- Facility and logistics services
- 24/7 Security and guarding services

GSMC FM and Logisitics Services in 5 years

Increased automation	Increased automation	New systems acquisition	In place and enhanced	In place today
Service management	**Multi-technical maintenance and cyber security**	**Data Centre Configuration management**	**Multi-technical services**	**Multi-services**
• Contract management multi-services • Technical management and coordination	• Technical and maintenance management • Maintenance execution • Cyber monitoring, detection and reaction • Start-up phase	• Data Centre Information Management (DCIM) • Management of building infra and IT	• Logistical and administrative support • Network deployments • Multi-technical works and expertise	• Gardening • Beverage service

Greener Procurement in 5 years
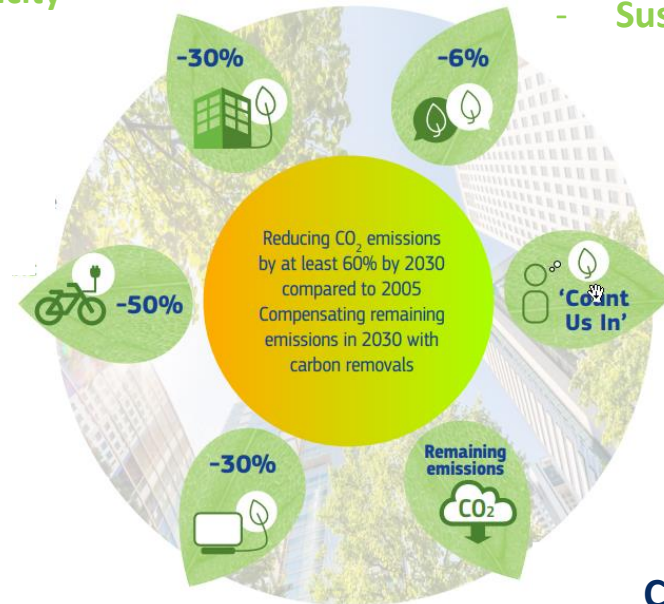
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Buildings
- Greener working space
- Improved energy efficiency
- 100% green electricity

Green deal
- Systematic use of green public procurement
- Green space projects supporting local ecosystems
- Sustainable food

Greener mobility
- Sustainable travel
- Greener commuting
- Electric vehicle charging

Engagement
- Staff participation
- Communication campaigns on green challenges

Digitalisation
- Mitigating environmental impact of digital solutions
- Greener digital behaviors
- More energy efficient devices

Carbon removals
- Upcoming Commission proposal on carbon removal certification

-30%   -6%

Reducing CO_2 emissions by at least 60% by 2030 compared to 2005 Compensating remaining emissions in 2030 with carbon removals

-50%   'Count Us In'

-30%   Remaining emissions CO_2

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Typical procurements for all EUSPA sites

- **Provision of Express courier and mail services**; FPO for €110k, signed May 2023

- **Provision of Insurance Services for EUSPA** (including all sites); FPO for €138k, signed November 2024

- **Provision of facility services for EUSPA Headquarters in Prague**, Czech Republic; FWC for €3.9M, signed November 2023

- Security and guarding services (approximately € 600K per year, part of the Facility contract)

- Some facility related services are provided via inter-institutional framework contracts (e.g. furniture)

On-going and up-coming procurements & activities

- FPO for €450kfor EUSPA/NP/15/24 - Provision of Express Courier and Mail Services for EUSPA (all sites included) - passed the submission deadline

- FWC for €410k for EUSPA/OP/27/23 - Provision of stationery, office supplies and office related consumables for EUSPA premises in the Czech Republic and Spain - Prior information notice published; under preparation

- FWC for €4M for EUSPA/OP/18/24 Galileo Reference Centre (GRC) Facility Management and Logistics (FML) Services, Netherlands - in submission stage

EU Space SOC (Security Operations Centre) – Overview

- As per the EU Space Strategy for Security and Defense, *EUSPA will play a key role as space security monitoring and operations center in the EU*.

- EUSPA is responsible for the operations of the Security Monitoring Structure for Galileo and EGNOS.

- EUSPA provides its Security Monitoring Structure services leveraging on the exploitation of an EU Space SOC
  - The goal is to achieve synergies and optimizations by leveraging the implementation of the cyber security monitoring systems for the EU Space Programme Components
  - EUSPA cyber security monitoring services are delivered from the GSMC (Galileo Security Monitoring Centre) located in Saint-Germain-en-Laye, FR, and San Martín de la Vega, ES
  - The design of the cyber security monitoring system of the EU Space SOC already developed is based on established standards and mainly relies on widely adopted Commercial-off-the-shelf products (COTS)

EU Space SOC (Security Operations Centre) – Typical activities

- To support the EU Space SOC, the cyber security monitoring capabilities of the systems operated by EUSPA are to be built to cover new monitored entities, and will be maintained to cope with evolutions of the monitored systems or the related cybersecurity threats

- Activities so far procured for Galileo include:
  - Extension of the security monitoring system base infrastructure in terms of increased capacity, and deployment of recurrent instances of the Enclaves at monitored entities' sites
  - Resolution of obsolescence, cybersecurity patching and maintenance
  - Implementation of the Security Monitoring logical function (*e.g.*, parsers, correlation rules, *etc.*) for a given Component of the European Union Space Programme, including extensive testing to demonstrate the achieved detection objectives
  - Maintenance of the Security Monitoring logical function (*e.g.*, parsers, correlation rules, *etc.*)

Q&A Session

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European Union Agency for the Space Programme

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