

# Civil Security from Space

To be renamed Crisis Resilience & Security from Space

Enhancing European and Canadian capability to address **security challenges** and support rapid response to **disasters**

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# There is urgency to act...

## ... for the protection of Citizens, Natural Resources and Critical Infrastructures

**Devastating events are escalating** with higher impact

**Europe needs to be better equipped** to monitor, mitigate and respond to events affecting society and state

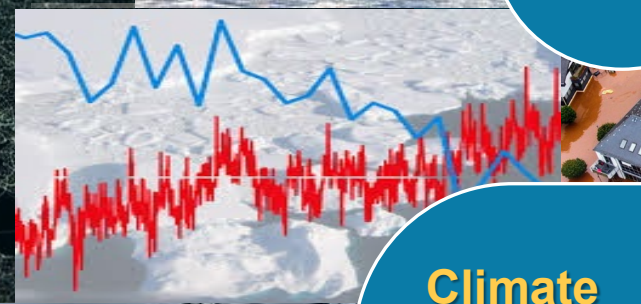
**Fragmented solutions** across Europe reduces responsiveness



Geopolitical challenges



Greece, 2023  
20,000 evacuated  
174,000 ha burnt  
€1.7 billion cost



Climate Induced Disasters



Germany, 2021  
+€30 billion cost



Accidents & Emergencies



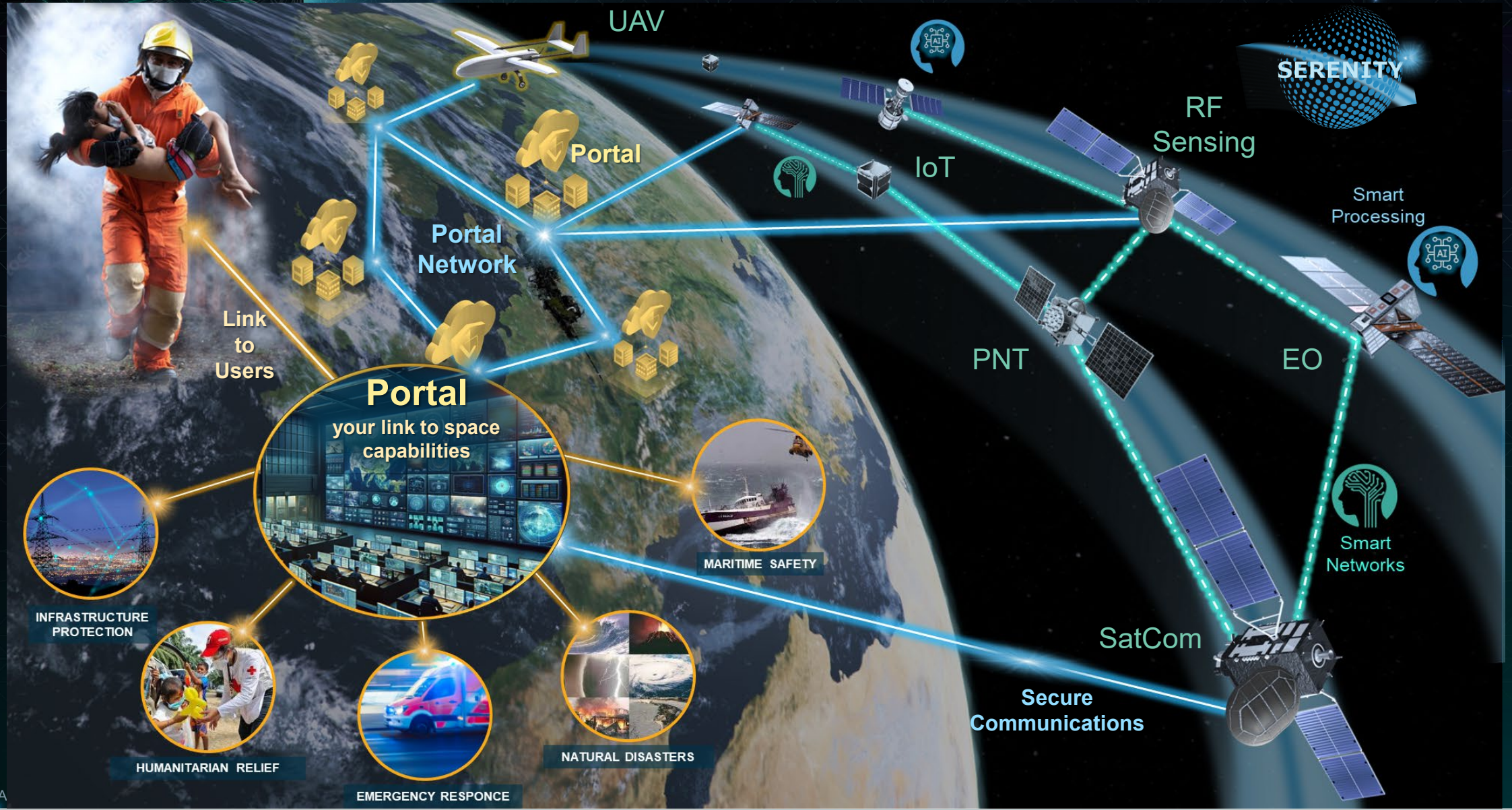
Turkiye, 2023  
273,000 buildings destroyed  
€34 billion cost



That is why I am calling for universal early warning coverage

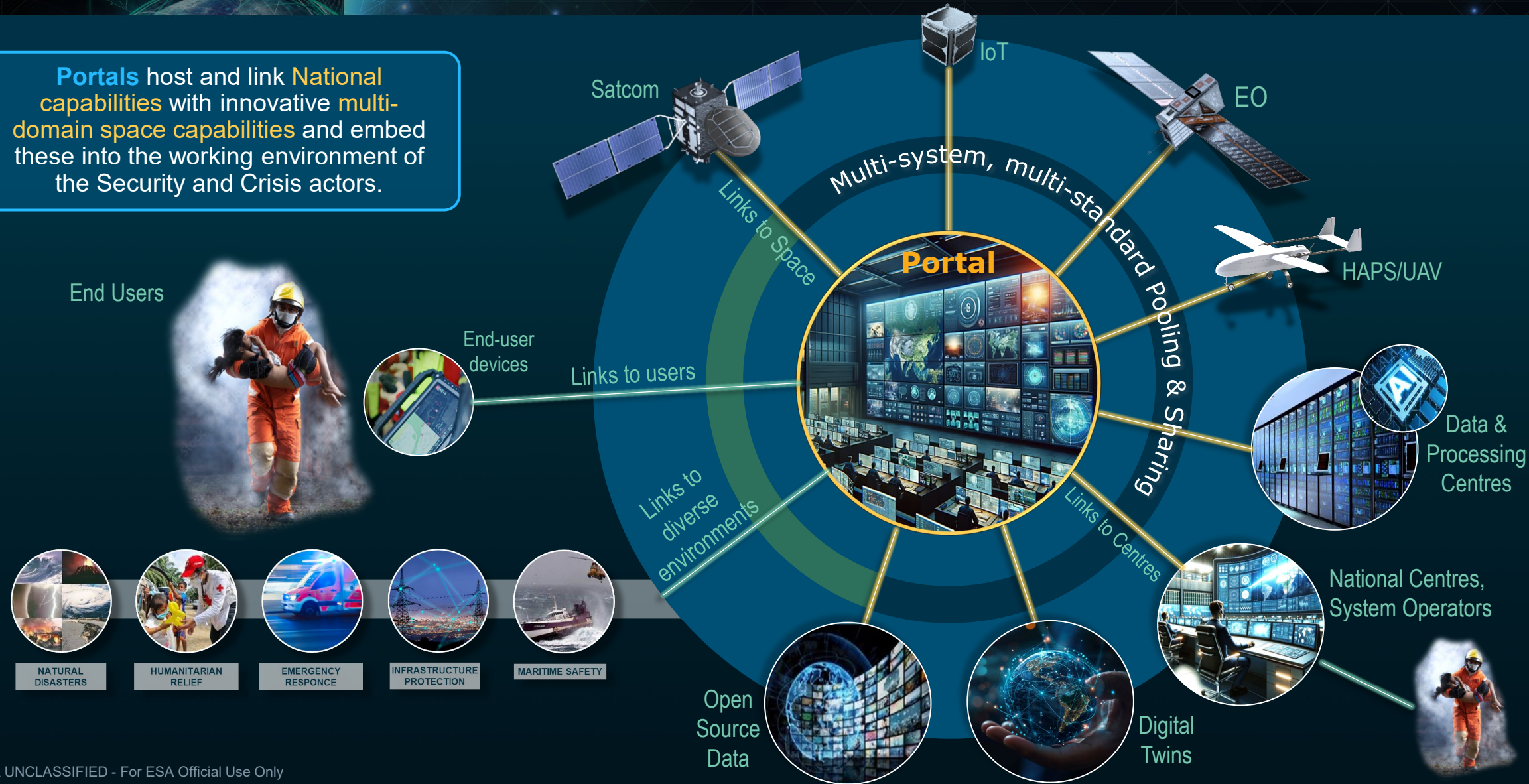


# Towards a comprehensive Space enabled full situation awareness



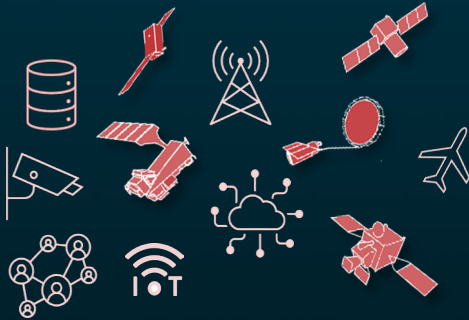
# National Portal - Linking Space to Users & Operators

Portals host and link National capabilities with innovative multi-domain space capabilities and embed these into the working environment of the Security and Crisis actors.



## 3<sup>rd</sup> Party Systems

Enhanced Space and Ground Solutions



**Enhanced sensors**  
(EO, RF-sensing, IoT ...)

**Multi-domain secure networking solutions**  
(Seamless space/ground connectivity, e.g. PMR)

**Federated Data Spaces**  
(Data Management Systems)

**In-orbit & On-ground edge-processing**  
(reconfigurable proc.)

**Autonomous operations**  
(Tip&Cue, intelligent systems)

## Orchestrator

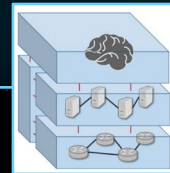
Smart access and networking of 3<sup>rd</sup> party systems



**Secure connectivity solutions**  
(Interfacing to GovSatCom Hub, EC systems, National Systems, Commercial etc)

**Multi-domain pooling and sharing platforms**  
(incl system tasking and control)

**OSS/BSS interface solutions**  
(Business & Operations interoperability)



## AI Factory

New intelligence products leveraging EO + IoT + RF Sensing + Open Source data



**AI enabled Data Fusion platforms**  
(usecase specific)

**Data and access Management systems**  
(security/QoS/user management)

**Testbeds and Simulators**  
(leveraging on digital twins)



## User Access & Control



**Applications platforms**

**Visualisation platforms**

**End-user devices**  
(incl. terminals, sensors, wearables)

**Secure connectivity to end-users**  
(e.g. PMR, D2D, Satcom)

**End-User Multi-domain Digital contracting solutions**  
(incl. blockchain)

**Smart Mission configurator**  
(smart product builder)

**Certified products** (secure and accredited)



# Opportunities in CSS – SERENITY system

## Development of Portals

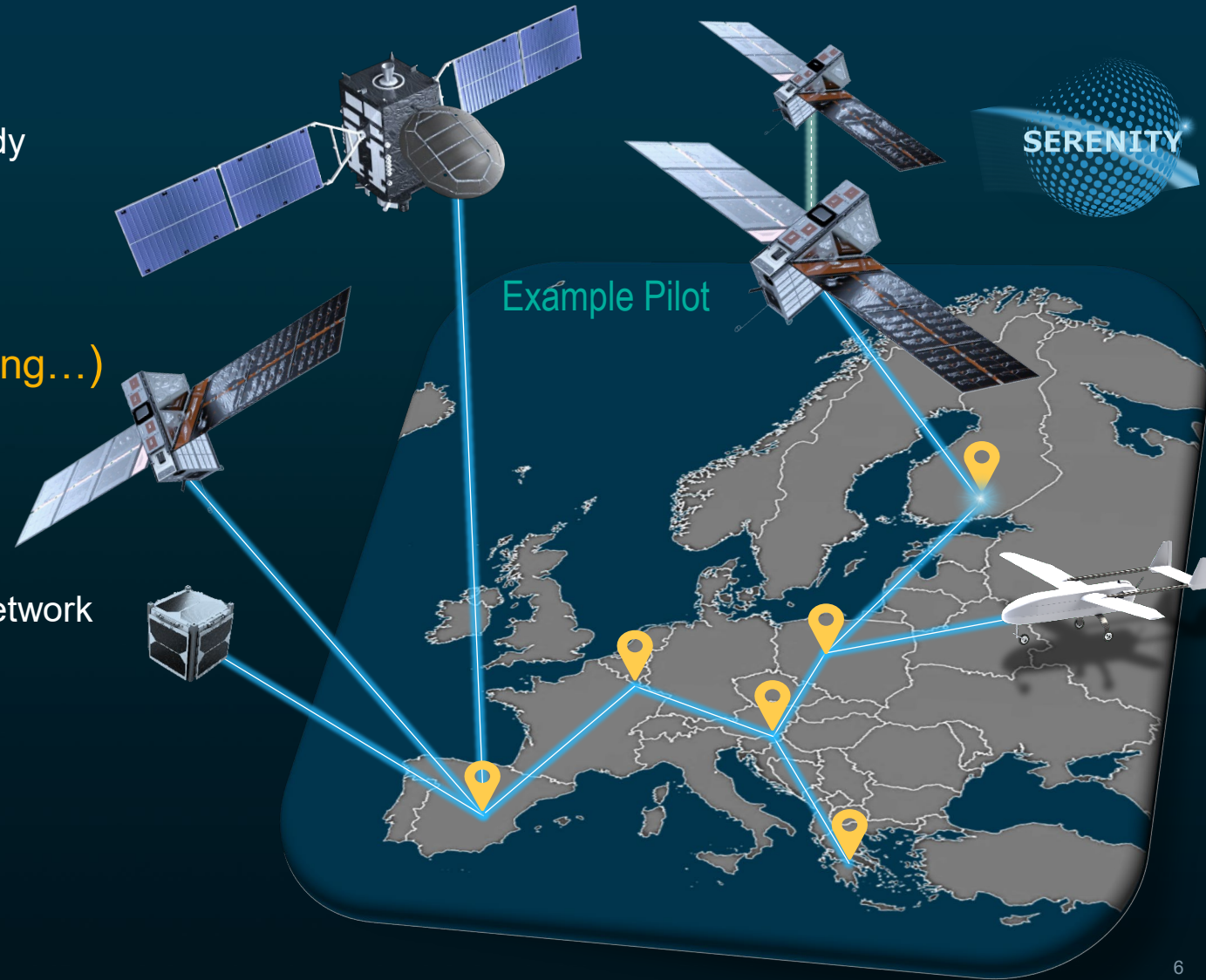
- Poland, Belgium, Austria, Slovenia, Finland, Norway already expressed interest and intent
- 2x Dual-use Portals in discussion

## Integration of systems (Satcom, EO, IoT, RFsensing...)

- Several Commercial and National systems in discussions

## Crisis Centre – stimulating innovation

- In discussion to be developed and hosted in SERENITY network
- Certification of products, systems and services



NATURAL DISASTERS    HUMANITARIAN RELIEF    EMERGENCY RESPONSE    INFRASTRUCTURE PROTECTION    MARITIME SAFETY

Priority Use Cases

## CSS and SERENITY

- Join as **Participating State** any time if not already the case (see map of existing PS)
- Ask for a **bilateral meeting** to discuss potential projects
- Have **industry and users register to Partners groups** to be kept informed and involved (even out of PS):  
[Partners Groups | ESA CSC](#)
- Support **identifying Collaborating Missions** that can join the SERENITY network with contributing portals, assets or services



# Schedule Towards CM25 and Beyond...

