

Linking space to user needs

Galileo Emergency Warning Satellite Service

Katarzyna Porzuc,
Market, Downstream and Innovation Department, EUSPA



EU Agency for the Space Programme



Exploitation

- Galileo and EGNOS services provision and 24/7 operations – including management, operation, maintenance, improvement, evolution & protection of infrastructure
- GOVSATCOM hub and IRIS² preparation
- Space Surveillance and Tracking Front Desk



Security

- Security Accreditation
- Security Monitoring Center operations (GSMC)
- Governmental Service Provision
- Key contributor in the implementation EU Space Strategy for Security and Defence



Utilisation

- Market development, communications, user uptake, applications, innovation
- For Galileo, EGNOS, commercial use of Copernicus, GOVSATCOM, SST, and soon IRIS²

EU Space Programme 2021-2027

EU Space activities
under one umbrella

REGULATION (EU) 2021/696 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 28 April 2021

establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU



EGNOS

EGNOS “Makes navigation signals more accurate and trustable for Safety-critical applications”

Operational in **480+ airports** & helipads in 26 countries

97% of new tractors with GNSS in Europe equipped with EGNOS



Galileo

Global satellite navigation and positioning system (GNSS)

More than **4 billion Galileo receivers** worldwide



Copernicus

Earth Observation (EO) and monitoring based on satellite & non-space data

Nr. 1 world provider of space data and information (16TB/day)



GOVSATCOM

Secure satellite communications for EU governmental actors

Rapid support over crisis areas



IRIS²

Infrastructure for Resilience, Interconnection & Security by Satellites

Sovereign multi-orbit constellation

Cutting-edge technologies focused on government service



Space Situational Awareness (SSA)

Space Surveillance and Tracking (SST)

Space Weather Events (SWE)

Near-Earth Objects (NEO)

Galileo Services value proposition



Galileo Services are provided to worldwide users since December 2016

Open Service (OS)

Freely accessible service for positioning and timing

Under Initial Operational Capability

Phase:

Navigation Message Authentication (OSNMA)

Public Regulated Service (PRS) – Governmental Service

Encrypted service designed for greater robustness and higher availability – secure satellite communication

Search and Rescue Service (SAR)

Locates people in distress and acknowledges that the distress signal has been received

High Accuracy Service (HAS)

Delivers high accuracy services, freely accessible

Under preparation

Emergency Warning Satellite Service (EWSS)

Supports and complements the civil protection services and the resilience of its infrastructures

Under preparation

Commercial Authentication Service (CAS)

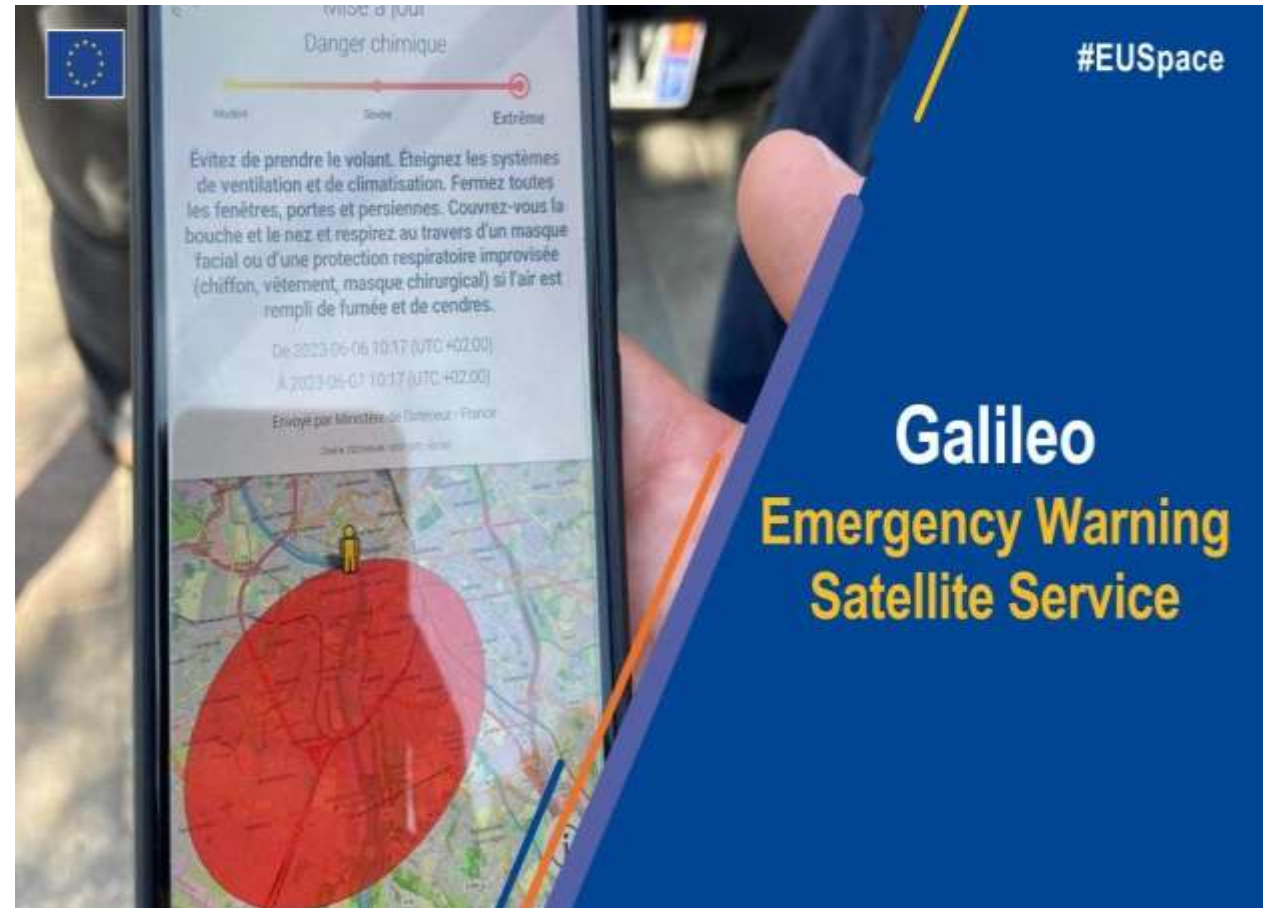
Delivers authentication services for commercial applications

Galileo Emergency Warning Satellite Service (EWSS)

The EU Space Regulation (EU) 2021/696

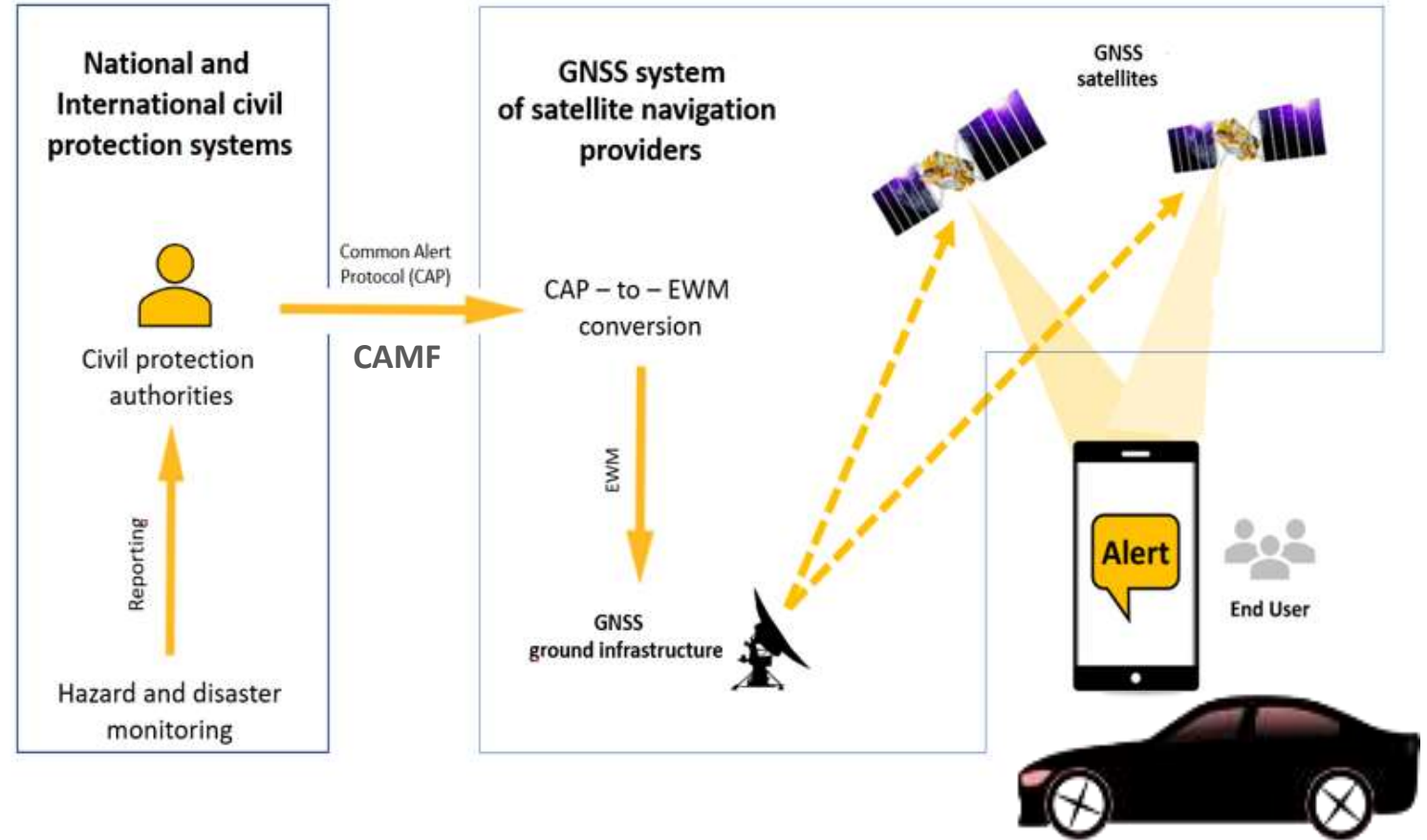
Article 45: The services provided by Galileo shall comprise: (...)

e) **an emergency service (ES)**, which shall be free of charge for users and shall broadcast, through emitting signals, **warnings regarding natural disasters or other emergencies in particular areas**; where appropriate, it shall be provided in cooperation with Member States national civil protection authorities.



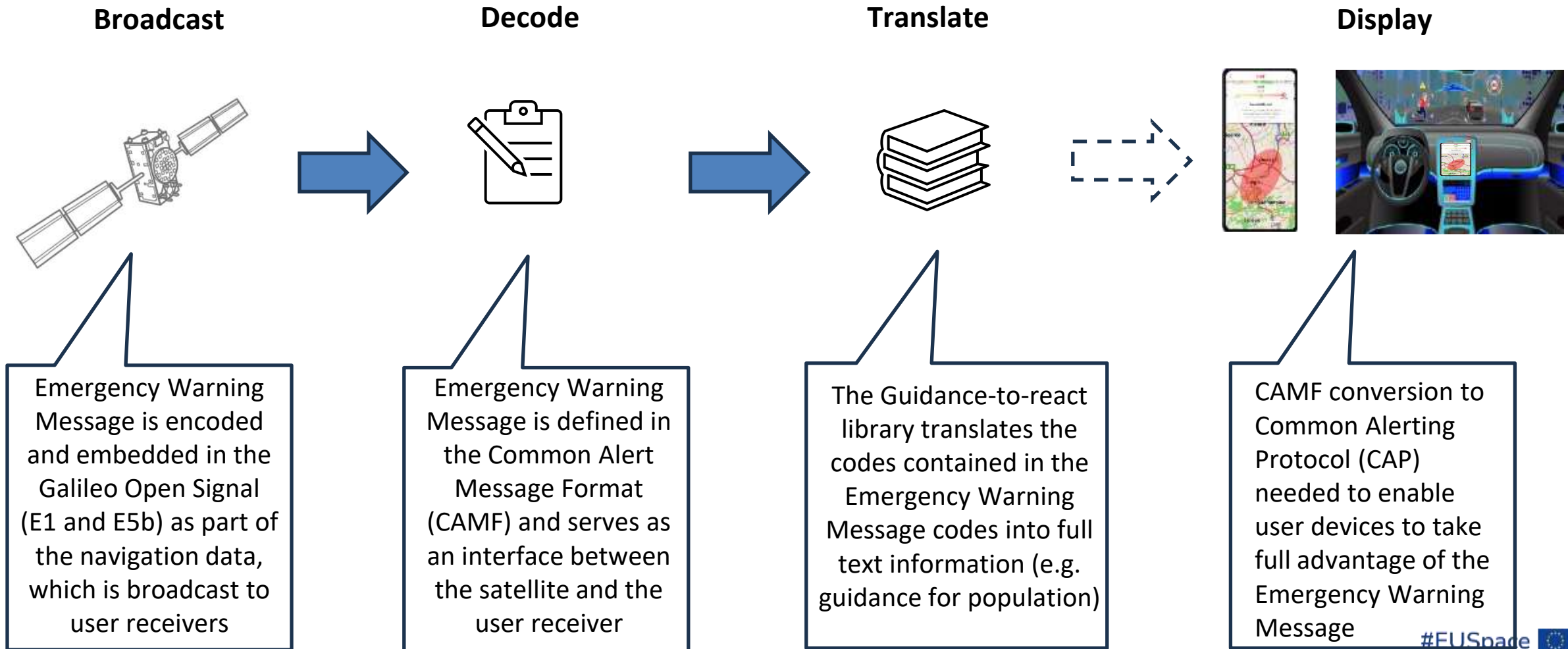
EWSS - service and operation concept

- ❑ Alert messages encapsulated in the satellite navigation signals
- ❑ Broadcast to warn target population about natural or man-made disasters
- ❑ On-demand service
- ❑ Global and free of charge
- ❑ Reaching target population within minutes
- ❑ Independent from mobile communication infrastructure and providing redundancy




Emergency Warning Message simplified workflow

In the EU, new car-types equipped with Galileo compatible receivers since 2018 – based on the eCall Regulation



Where we are and what still needs to be done

- ❑ Tests of GNSS receivers with major European manufacturers
- ❑ Pilot test of the service with MS Civil Protection Authorities
- ❑ Galileo EWSS Initial Services rollout planned for 2025
- ❑ Receiver Guidelines under preparation
- ❑ CAMF conversion to CAP ongoing in the scope of Horizon Europe project **AWARE** managed by EUSPA, stay tuned for more details at the CAP Implementation Workshop tomorrow:

15:50 – 17:20	3.9 Strengthening Resilience: Red Cross Engagement for CAP Implementation - an example from Eswatini (Karin Metz) 3.10 Google Public Alerts (Kasia Mohammed and Yoli Spigland) 3.11 <u>CAP and the Galileo Emergency Warning Satellite Service</u> (Laurent Arzel)	
---------------	--	---

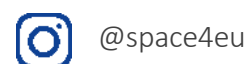
#EUSpace 



Linking space to user needs

Get in touch with us

www.euspa.europa.eu



EUSPA is hiring!

Apply today and help shape the future of #EUSpace!