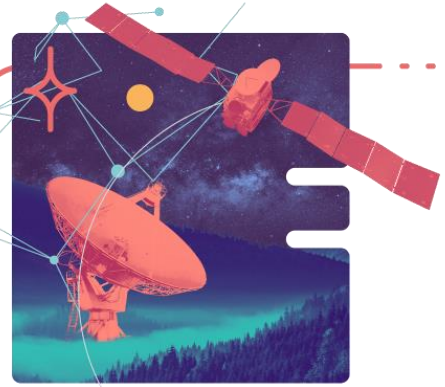


USE CASE 2: NATIONAL DIPLOMACY / EU DELEGATION

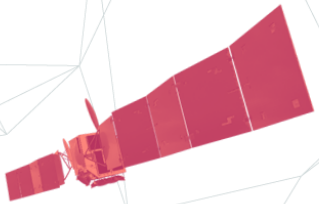
HELLENIC REPUBLIC
Ministry of Digital Governance

HELLENIC REPUBLIC
Ministry of Defence

Dr Dimitrios Kagklis

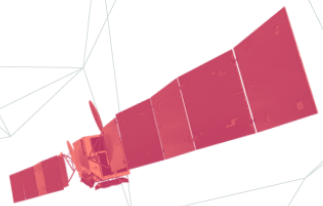
Ioannis Chatziioannidis, Captain (Eng) H.N

GREECE AND SPACE



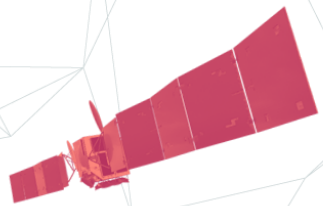
- 2017 National Space Law
- Space in one Ministry (MoU with MoD)
- Space Policy Council of Ministries
- National register of space objects
- 2020 Law on objectives of Greece in space management

STRATEGIC OBJECTIVES



1. **Strengthen national security and defence, especially with the utilisation and development of space infrastructure.** Ensure national autonomy in safety and security (e.g., border control, disaster management) by enhancing existing infrastructures (e.g., GreekCom) and developing new ones (e.g., small satellites). The goal is to autonomously respond to national safety and security needs.
2. **Development of the Greek space industry.** Maximise the integration of Greek companies into the European industrial space landscape. The goal is to create a sustainably competitive Green space industry.

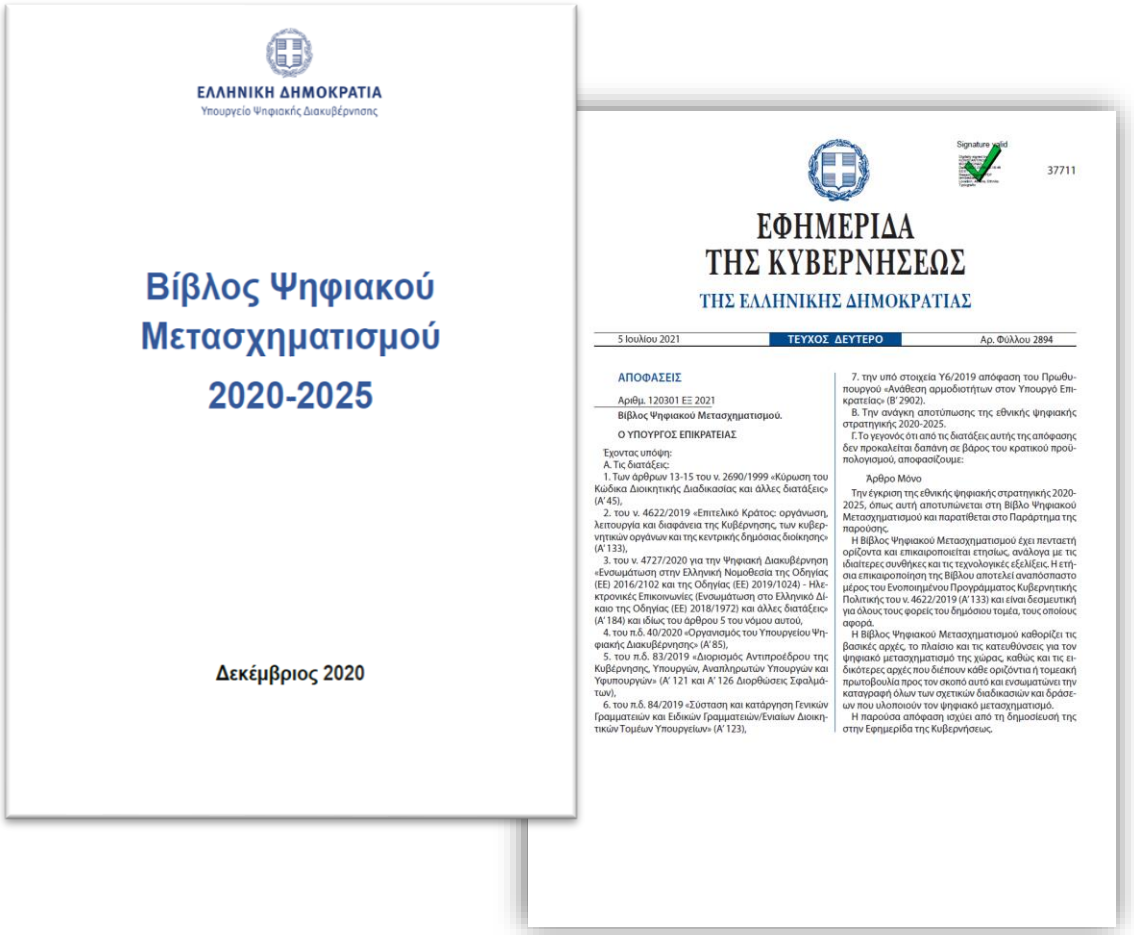
STRATEGIC OBJECTIVES



3. **Utilisation of space data and the development of relevant applications.** Foster the integration of space into the society and economy, by facilitating the use of space technologies and applications to support public policies and business development (e.g., telecom, transport, maritime, agriculture, energy, environment). The goal is to create public and commercial services.
4. **Support space research and innovation.**

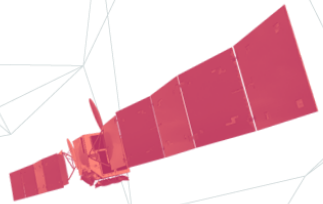
NATIONAL STRATEGY FOR SPACE ACTIVITIES

SPACE AS AN ENABLER FOR DIGITAL TRANSFORMATION



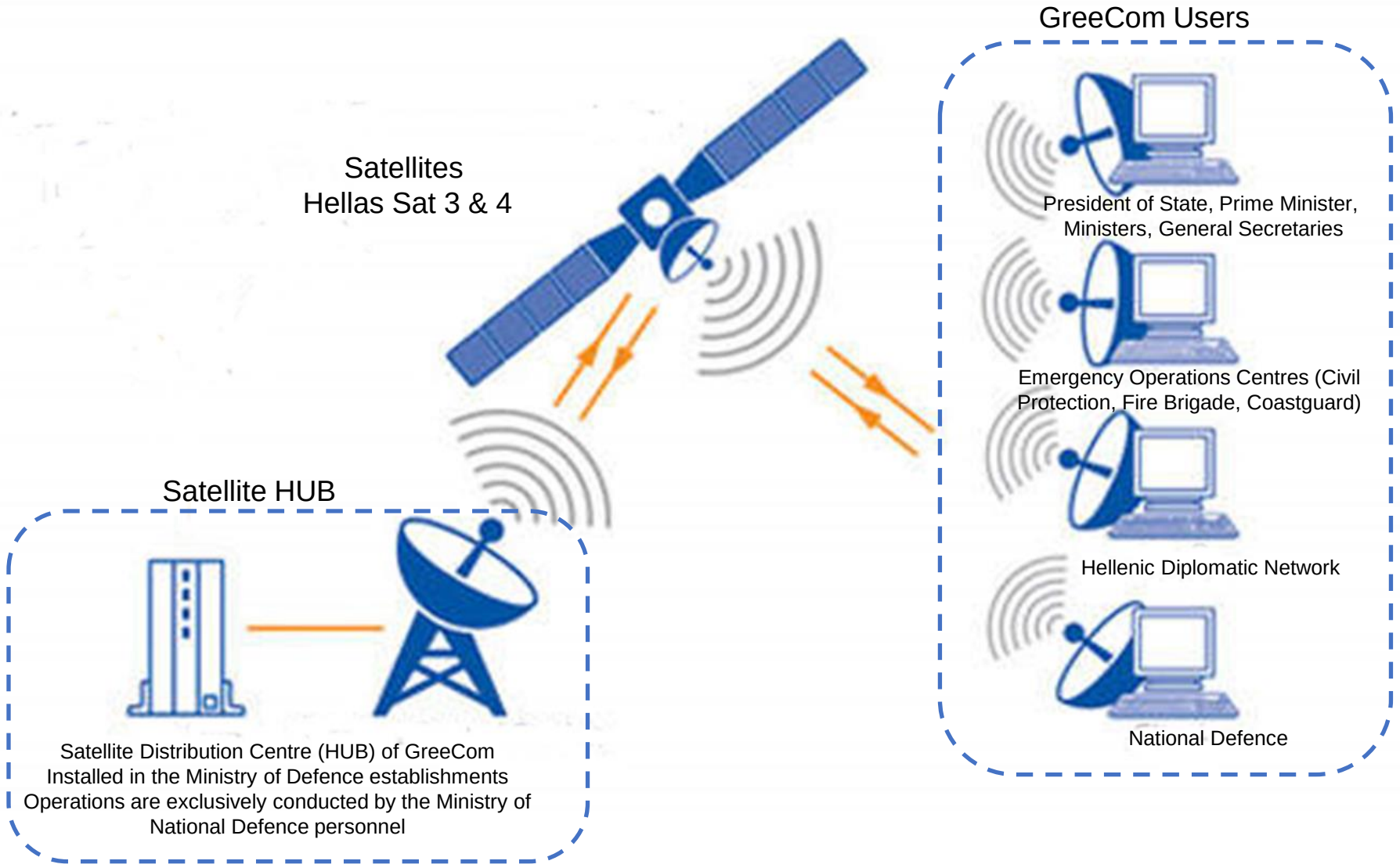
- Upgrade of the Hellenic Copernicus Collaborative Ground Segment (p.69)
- Line of action for the development of 5G Networks (p.65)
- GOVSATCOM - GreeCom (p.67)
- Fibre in the sky and ground infrastructures (p.67)
- Development of the Micro-Satellite Project (p.66)
- Applications of Secure Quantum Cryptography – EuroQCI (p.122)
- National Experimental Infrastructure for the Quantum Key Distribution (QKD) (p.122)

GREECOM PROJECT AIMS TO



- ***Cover*** gaps in communications security from existing networks, e.g., three-digit phones, mobile phones, remote subscribers, land lines and multinational providers.
- ***Utilize*** the available spectrum of the local satellite provider (HELLAS SAT 3 & 4).
- ***Connect*** remote users in a relatively easy and fast way.
- ***Reduce*** the possibility of information leakage to third parties (e.g., mobile or landline operators).
- ***Ensure*** the availability of communication of critical positions / services.
- ***Offer*** a primary or alternative solution as a Management and Control network.
- ***Provide*** connectivity in case of natural disasters (e.g., earthquakes) where terrestrial network is down.

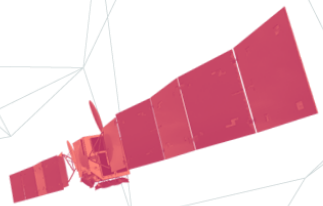
GREECOM PROJECT AIMS TO



GreeCom:

- Fully operational
- Connecting decision centres
- Reliable and resilient

GREECOM FACILITIES



- The Hub facilities (data centre and 5m antenna) are installed inside a secure bunker located at a Hellenic Navy site in Athens (Eastern Mediterranean Command Headquarters), thus being totally protected and immune to physical disasters.
- The remote endpoint terminals (equipped with 1.2 m antennas) are installed on various civilian and military government authorities around Europe within the footprint of HELLAS-SAT 3 & 4 satellites, such as:
  - Political Administration, Hellenic Embassies, Civil Protection, Armed Forces, Coast Guard, Police, Fire Department

GREECOM FACILITIES

- Secure telephony closed network
- 2018 Initial Construction Plans
- 2019 Fully operational
- 5m antenna HUB
- 1.2m antennas at remote sites

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Ministry of Digital Governance

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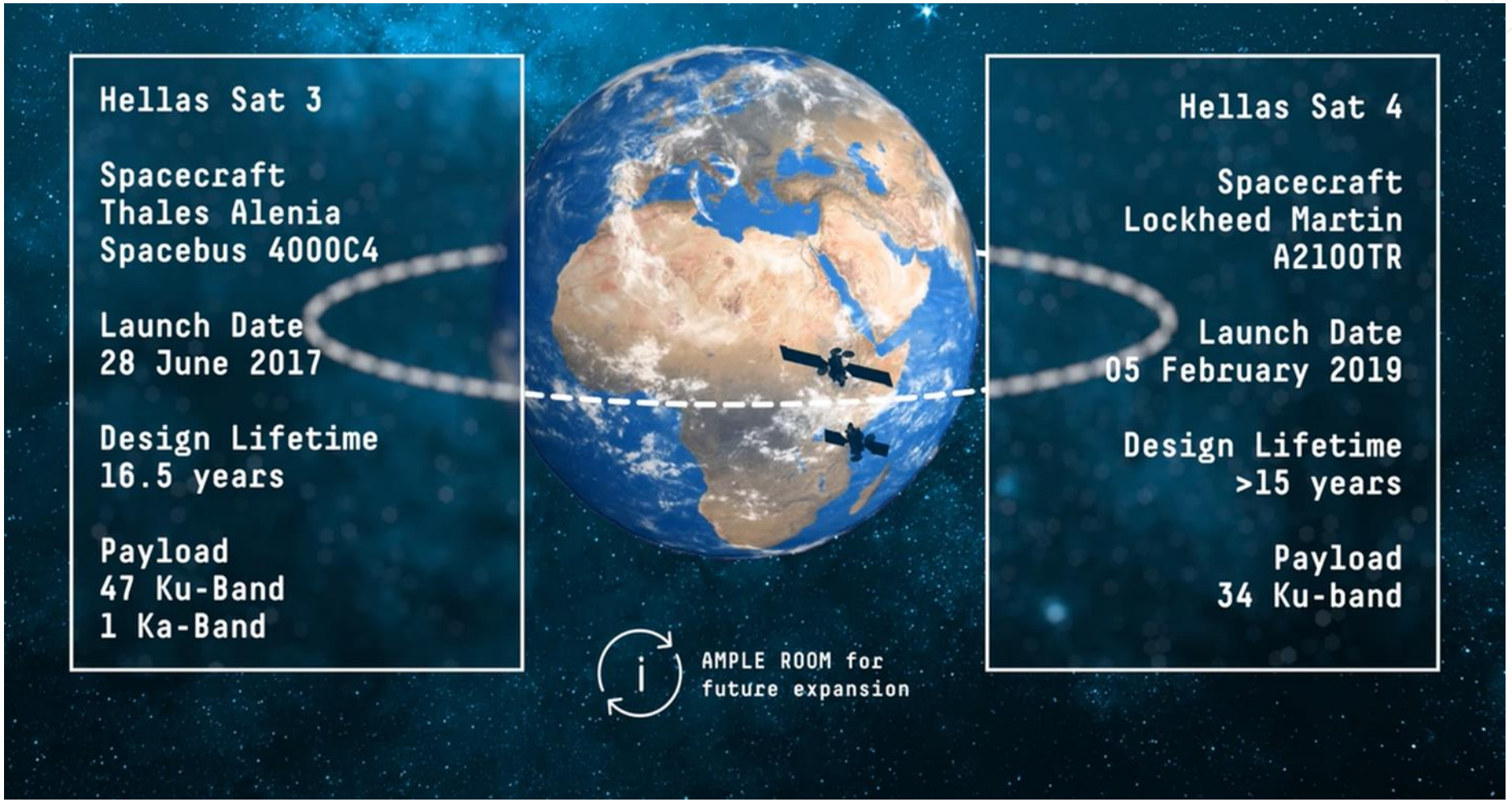
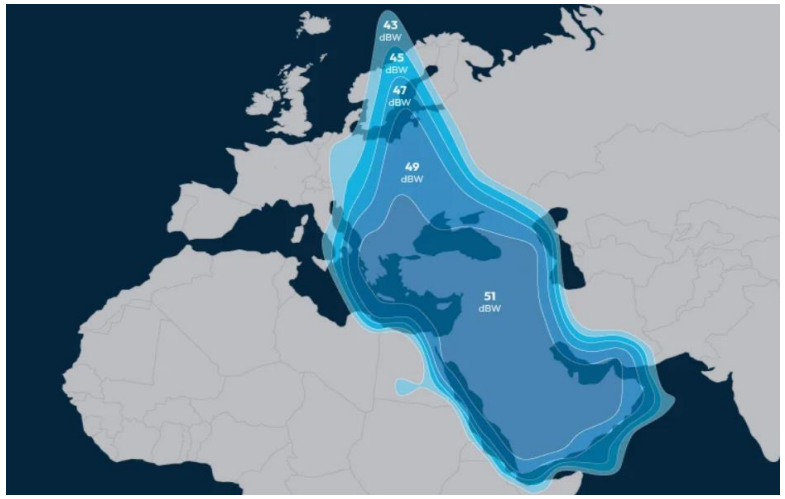
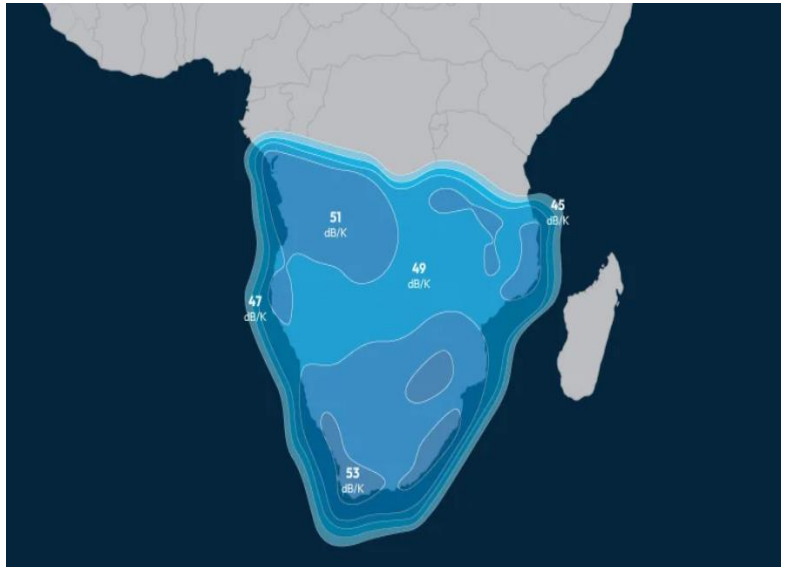
Ministry of Defence

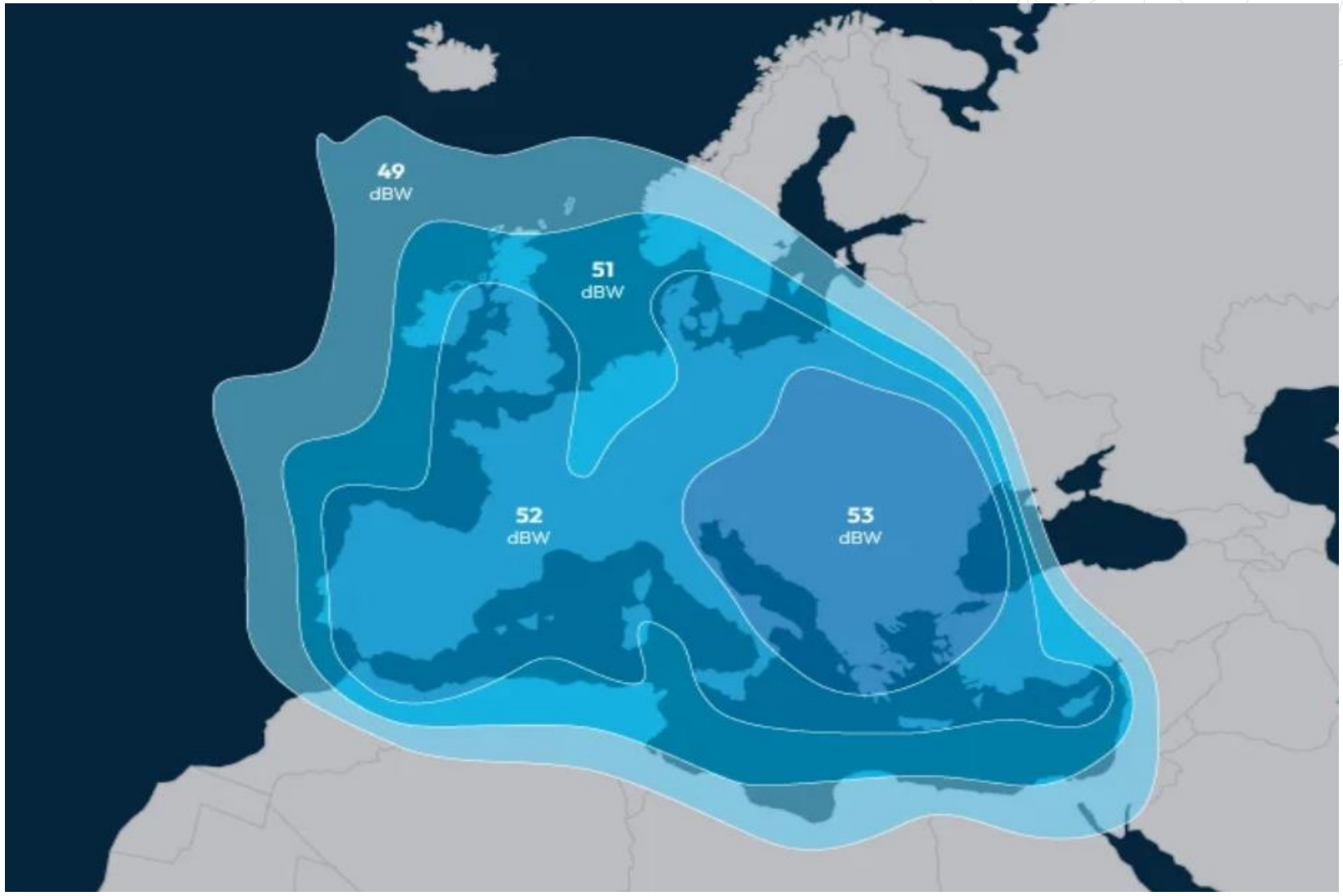
HELLAS 3 & 4 SATELLITES



HELLAS SAT FOOTPRINT







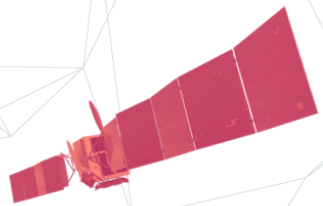
EU OFFICIALS VISITING GREECOM FACILITIES

- 16 July 2021
- **Mr. Thierry Breton**
  Commissioner for Internal Market
- Joint Meeting with Hellenic Minister of National Defence
  Mr. Nilkolaos Panagiotopoulos
- A video call with deployed Hellenic Navy Units

EU OFFICIALS VISITING GREECOM FACILITIES

- 25 May 2022
- **Mr. Rodrigo da Costa**
  EUSPA Executive Director
- The same video call was held

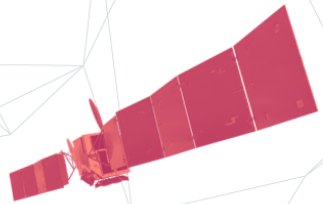
INFORMATION ASSURANCE (IA)



The core principles of Information Assurance (IA)
of **C**onfidentiality - **I**ntegrity - **A**vailability are met with
the implementation of modern algorithms over the dedicated
SATCOM infrastructure

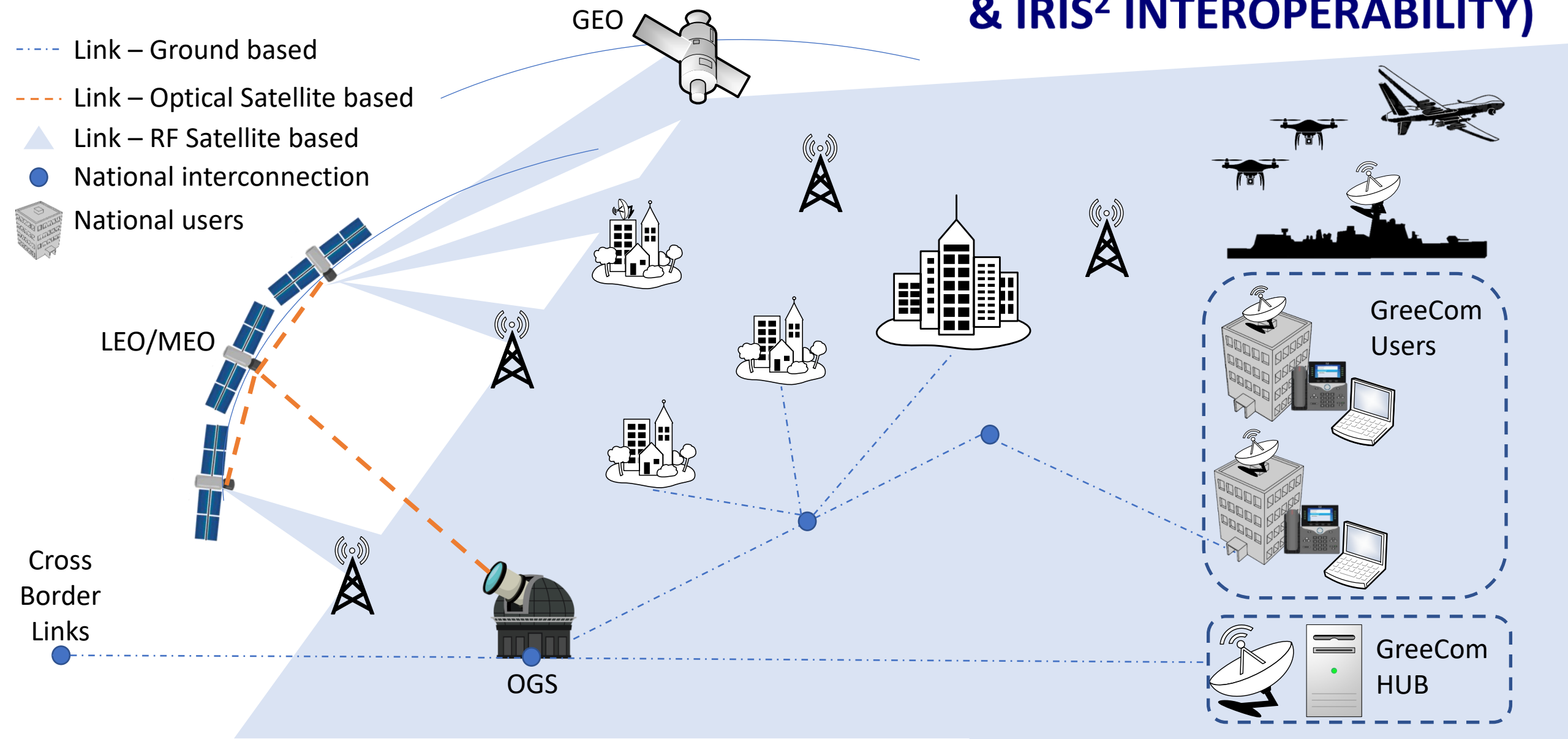
- IPSEC AES-256 (FIPS 140-2 compatible)
- HMAC –SHA
- Authentication (Ethernet 802.1X, secure boot and firmware)

GREECOM FUTURE DEVELOPMENT (PROJECT GREECOM-II)



- Extra capabilities and data services beyond VTC (**file exchange, email, etc**.).
- **Last mile 5G services** using GreeCom for sat backhauling
- Enhance communication security **(COM.SEC)**
- Enhance transmission security **(TRAN.SEC)**
- Enhance cyber security **(NET.SEC)**

GREECONNECT - POTENTIAL ARCHITECTURE (GOVSATCOM, 5G/6G TERRESTRIAL, EUROQCI & IRIS² INTEROPERABILITY)



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Ministry of Defence

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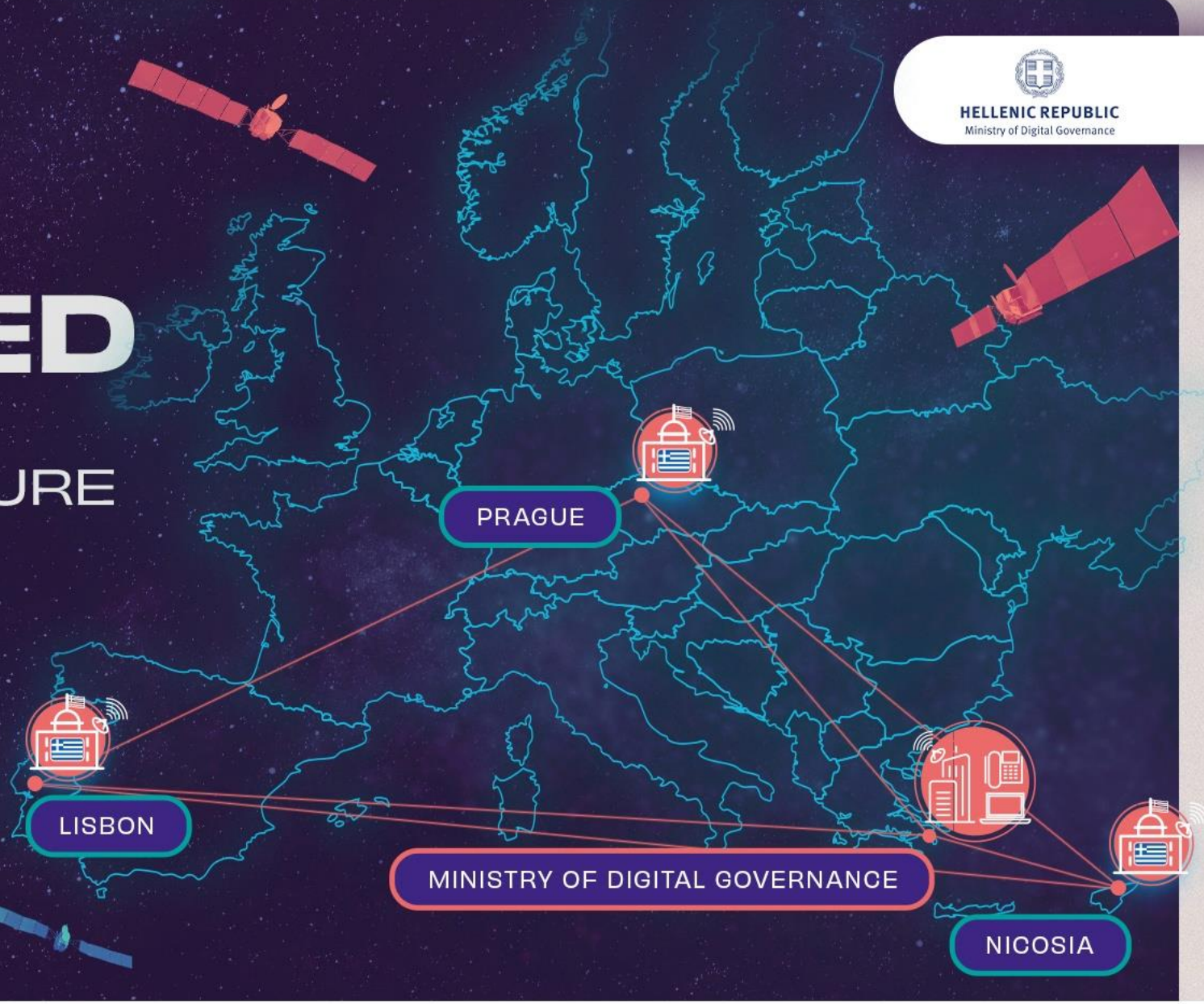
ENTRUSTED

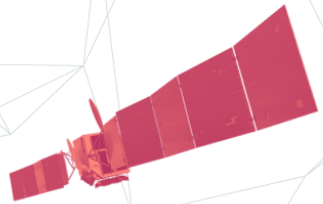
DEMONSTRATION OF KEY INFRASTRUCTURE USE CASE

GOVSATCOM support
for institutional communication
- demonstration of secure SatCom
service provision to a diplomatic network



ENTRUSTED

USE CASE 2: GOVSATCOM FOR INSTITUTIONAL COMMUNICATION



This use case demonstrates the key aspects of secure satellite communication between **the Ministry of Foreign Affairs**, **the General Secretary of Telecommunication and** Post of **the Ministry of Digital Governance in Athens** and three embassies located at:

- **Lisbon** (Portugal)
- **Nicosia** (Cyprus)
- **Prague** (Czech Republic)

HELLENIC REPUBLIC
Ministry of Defence

GOVSATCOM – SECURITY OPERATIONS MONITORING AND HUB

HELLENIC REPUBLIC
Ministry of Digital Governance

National GOVSATCOM Systems

Commercial SATCOM Systems

National and Commercial Operating Centers & Hubs

Security Monitoring & Operating Centers

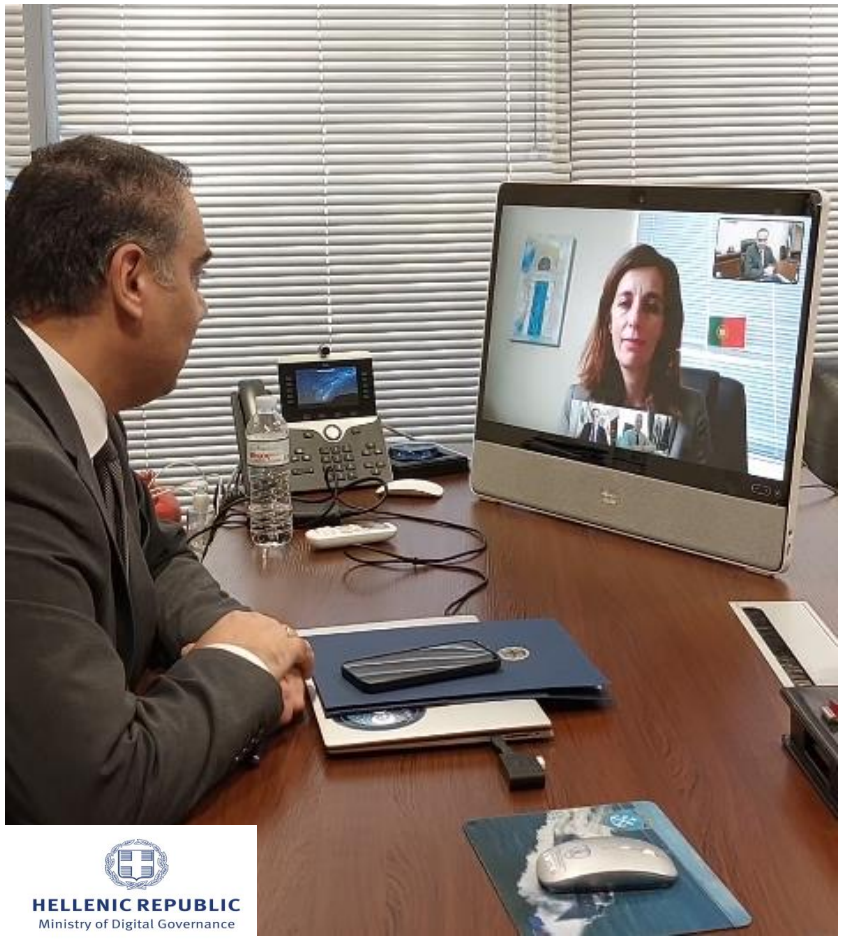
EU GOVSATCOM HUB / Networking Routing

USERS

Commands / Agencies / Ministries / Services

ENTRUSTED

GREECOM DEMO VIDEO



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HELLENIC NAVY

HELLENIC REPUBLIC
MINISTRY OF
NATIONAL DEFENCE