

living planet symposium

BONN
23–27 May
2022

Agora GEMINI
Atlantic Regional Initiative

TAKING THE PULSE
OF OUR PLANET FROM SPACE



SAT4EO Critical Element - Incubed

David Petit, head of EO Applications
Preparation: Murray Kerr

24/05/2022

Deimos, technology company of Elecnor

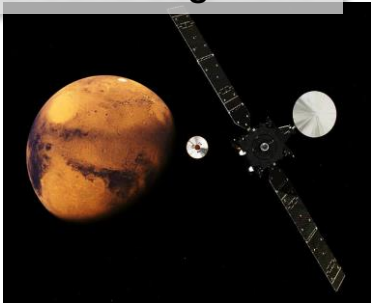


SPACE
60% of activity



SPACE SCIENCE & EXPLORATION

Flight segment
Ground segment



SATELLITE NAVIGATION

EGNOS V3
GALILEO 2nd



GNSS receivers



EARTH OBSERVATION

Clean room



Antenna

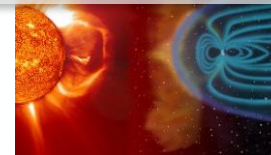


GS software suite



SPACE SITUATIONAL AWARENESS

Space weather

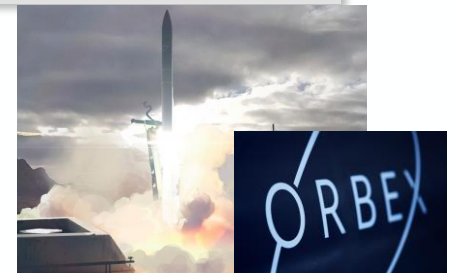


SST



LAUNCHERS

Small launchers



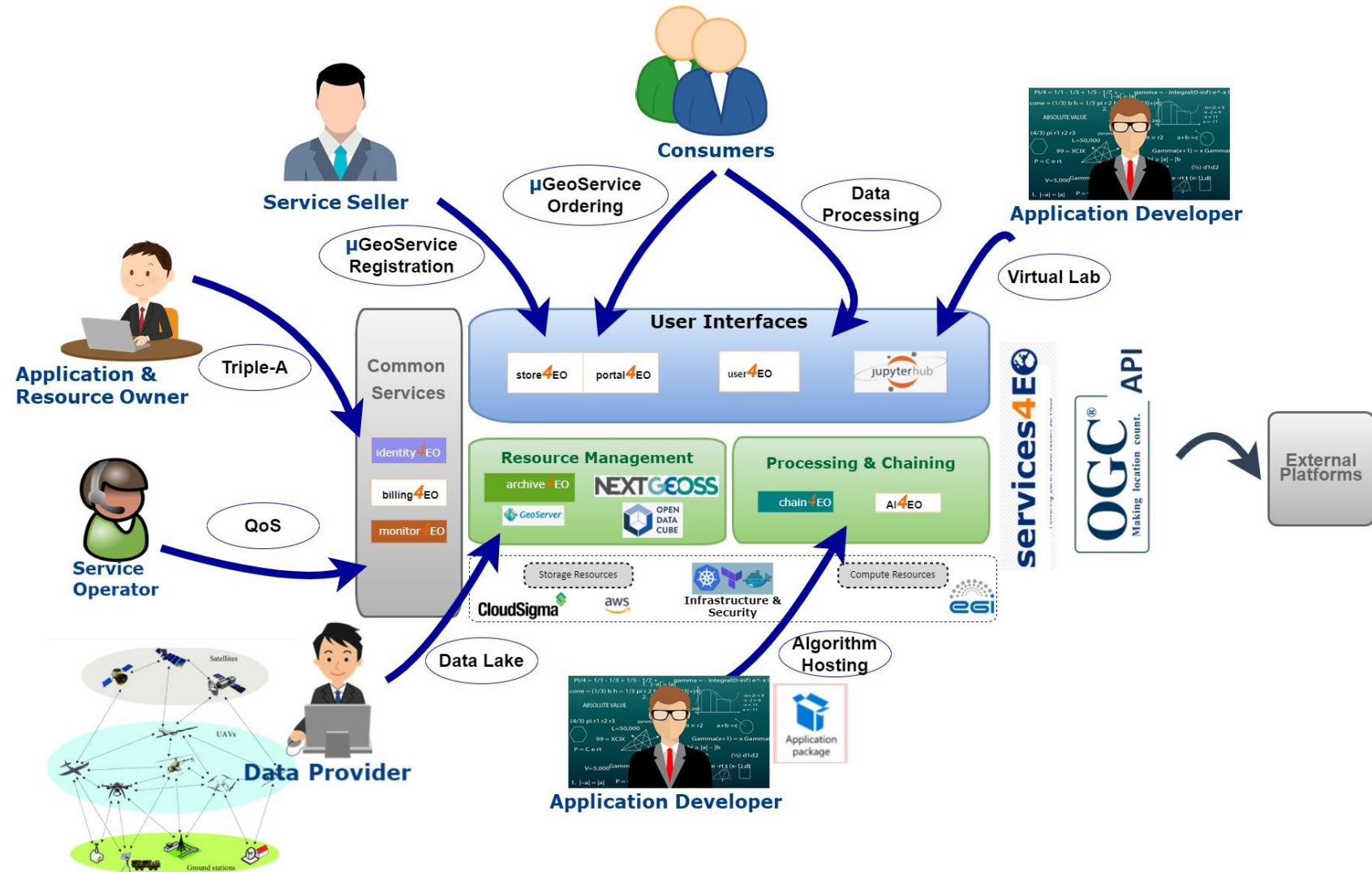
SAT4EO Critical Element (SAT4EOCE) Incubated

- ❑ Incubated activity started in 2020; terminating 2023
- ❑ ESA supported and funded activity, with the support from Spain, UK and Romania
- ❑ **DEIMOS** prime, with **SSTL** and **Te2v** key partners
- ❑ Develop several critical elements of Elecnor Deimos's sat4EO satellite programme
- ❑ Products developed to meet **sat4EO** and **general market needs**
- ❑ Products are developed to TRL 6+
 - Payload (SSTL)
 - Detector (Te2v)
 - Ground Instrument Processor (DEIMOS)
 - On-board Instrument Processor (DEIMOS)
 - Exploitation Platform (DEIMOS)
 - AOCS (DEIMOS)



Product: Services4EO

- Generic **cloud exploitation platform** for satellite imagery, can be connected to several **Ground Segments** (free and commercial providers)
- Includes **B2B Marketplace**, to build automated (AI) applications in agriculture, forestry, maritime, energy...
- Catalogue 100s of EO** (micro-) **services** available for **subscription**, including from third parties organisation

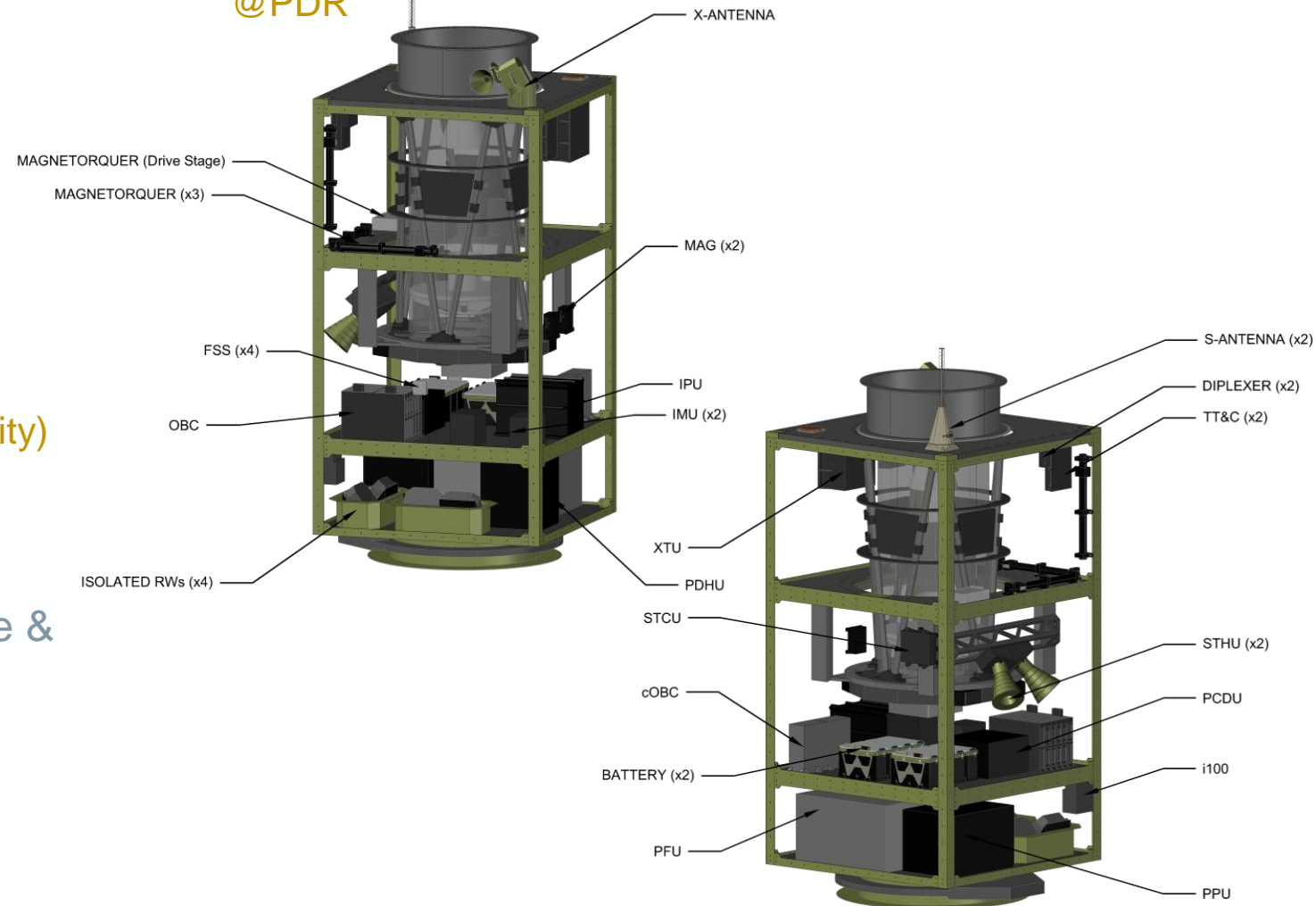


SAT4EO+ Programme: DEIMOS “intelligent” small satellite for responsive VHR optical services

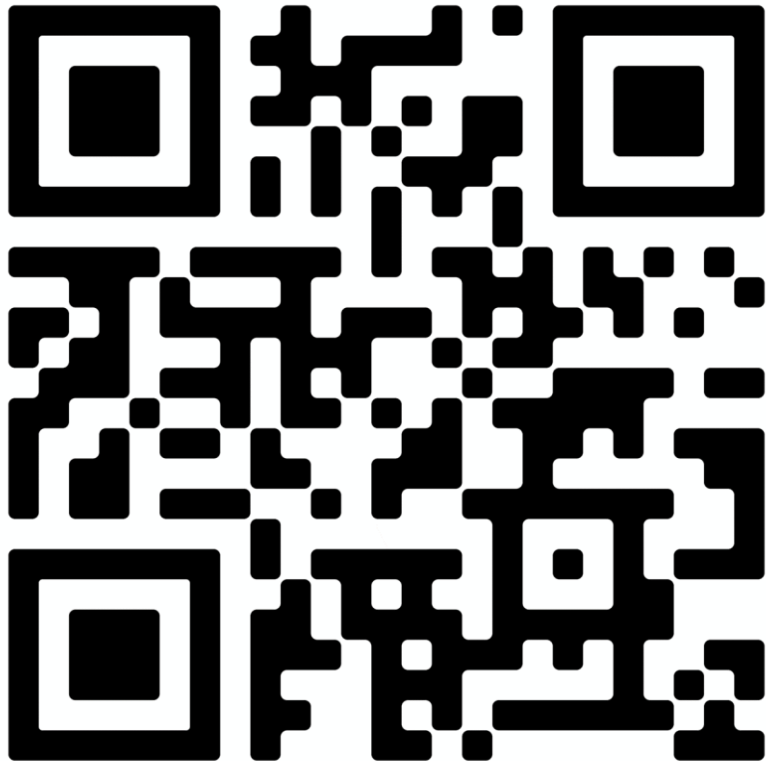
Key performance parameters & innovative features

- ❑ ~200kg smallsat
- ❑ Optical VIS (RGB, PAN) and NIR payload
 - ❑ VHR @0.5m native; ~0.3m with SRR
- ❑ Agile (stereo, multi-pointing)
- ❑ Low cost
- ❑ Highly responsive (< 10 min) globally
 - ❑ Global product latency <5 min (1 min priority)
 - ❑ Global tasking < 5 min
 - ❑ Direct product delivery
- ❑ Intelligent, Insight4EO used as Intelligence & Payload processing unit
 - ❑ On-board planning
 - ❑ On-board payload processing
 - ❑ On-board data prioritisation

Payload and units accommodation @PDR



- ❑ Set of System and Thematic Earth observation services
- ❑ User-centric UX to take EO solutions to the general market
- ❑ Digital Store bringing customers and service providers together



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and register for a
present!*

