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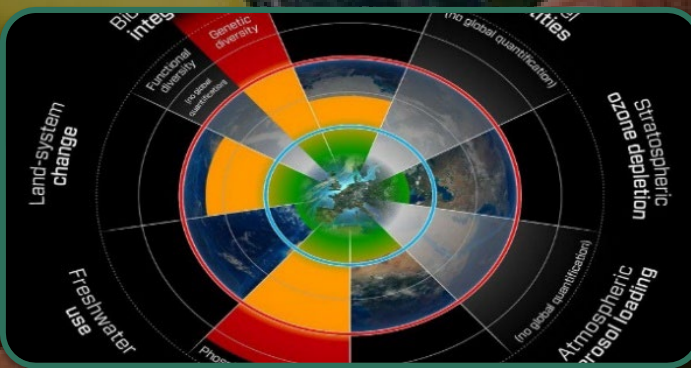
A coordinated European response



The **grand challenges** that humankind is facing require more than ever that scientists advance their understanding of the planet, its processes and its interactions with human activities and translate that knowledge into novel solutions for society.



Climate crisis



Safe and sustainable planetary boundaries



Green Deal



The realisation of a long-term partnership



The European Commission's Deputy Director General for Research and Innovation, Patrick Child and ESA's Director general of ESA, Josef Aschbacher at the signing ceremony, January 2020.

A common goal

".... to jointly advance Earth system science and its contribution to respond to the global challenges that society is facing in the onset of this century"

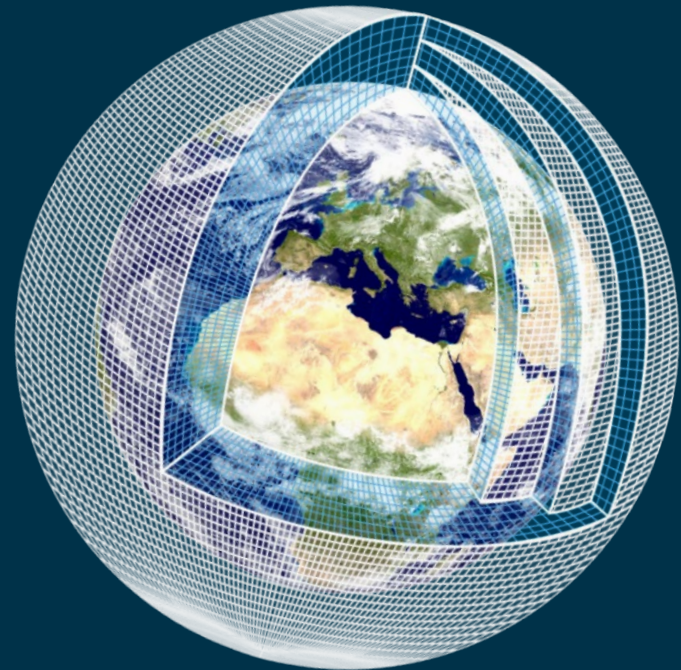
Am ambitious European scientific coordination effort



ESA 
FutureEO
ESA new Science and Innovation
Earth Observation Programme




EC-RTD
Horizon Europe
New EU Research and Innovation
Framework Programme



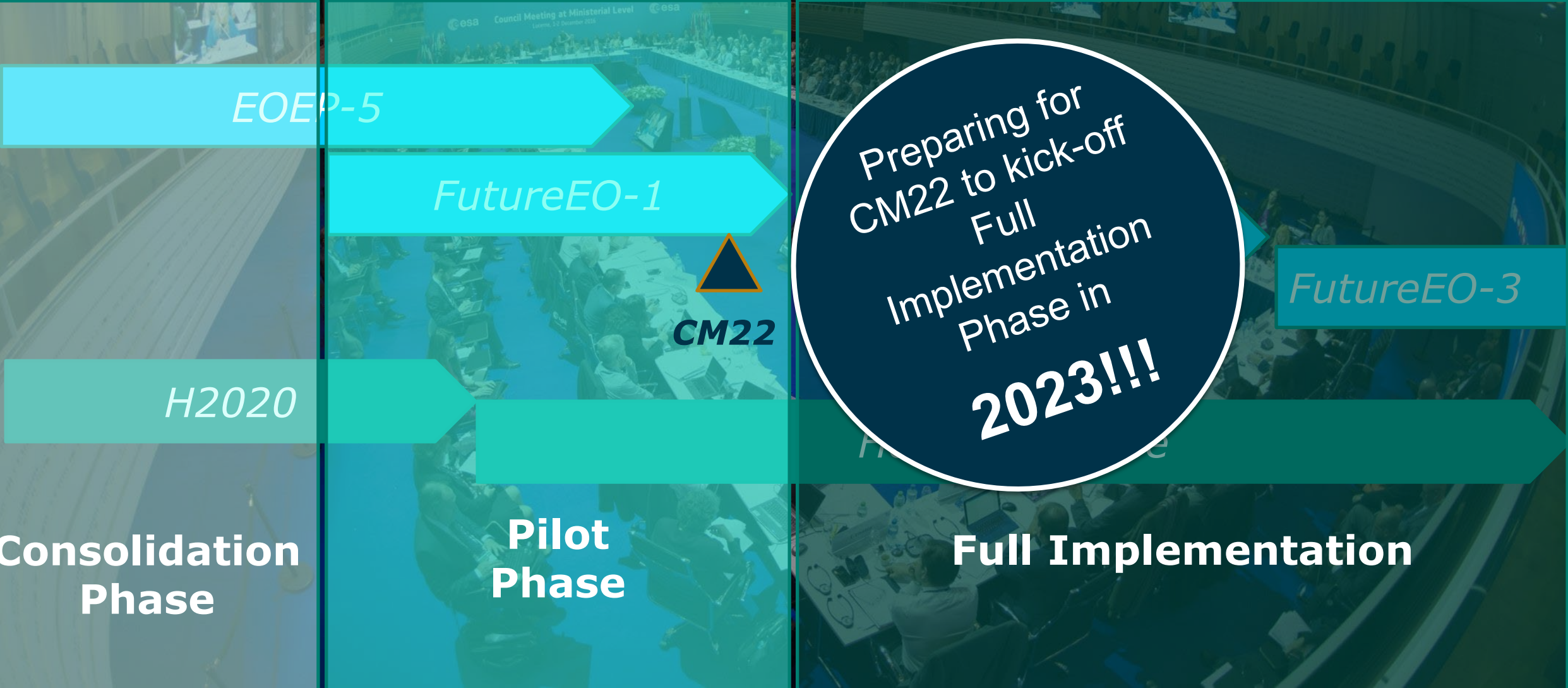
- The initiative is implemented through a co-programming approach;
- Selected coordinated actions, calls and ITTs in ESA's FutureEO and EC's Horizon Europe
- Fostering networking and collaborative research across teams
- Capitalising in the unique European space EO assets and capabilities
- Contributing to establish a solid scientific basis to address European priorities (e.g., Green Deal) and programmes (e.g., Copernicus)



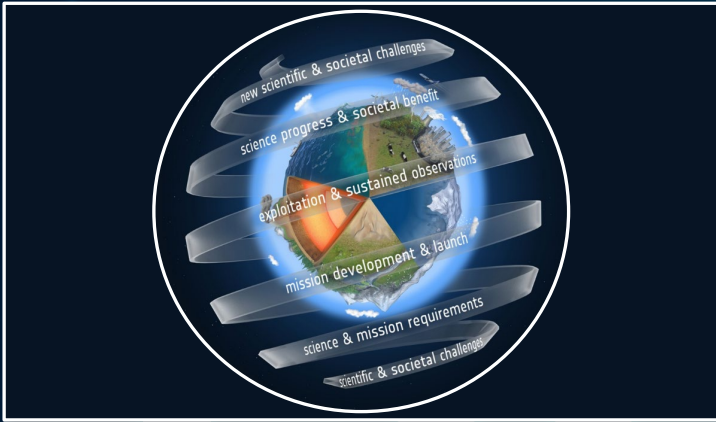
Proposed Phasing



2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
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Earth Science, Preparation of EO future and World-class EO Research Missions



Foundations and Concepts



Research Missions



Mission Management



Earth Science for Society

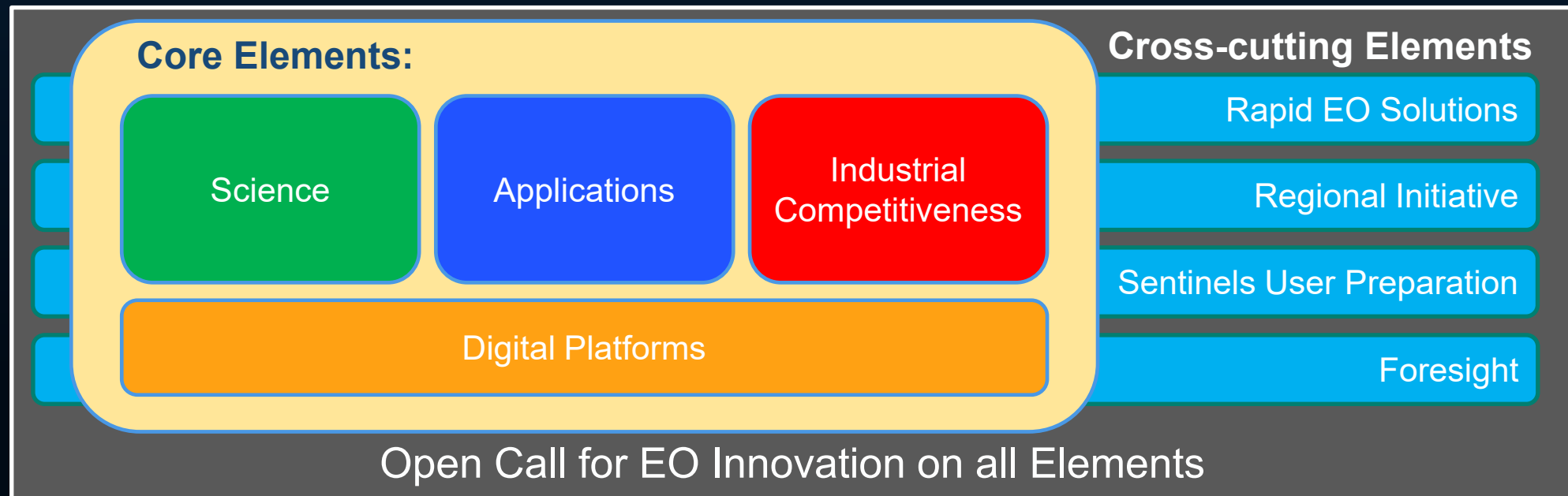
The only ESA (EO) optional programme bringing together all Member States

EOP locomotive at CM22

Block 4 - Earth Science for Society

Earth science for society aims at maximising the impact of European EO assets on society and fostering European competitiveness in the exploitation of all EO missions. The programme is articulated through:

- **4 Core Elements** addressing the needs of the scientific community, sectorial policies and European industry, fostering the transition from science to operations by delivering scientific excellence, pioneering novel applications, growing the downstream sector and leveraging on latest digital platforms and ICT solutions.
- **Supported by 4 Cross-cutting elements**, implemented across the development chain, offering dedicated mechanisms to address specific priorities and needs of MSs, exploring the potential of emerging and disruptive technologies and preparing the community for a new era in EO.

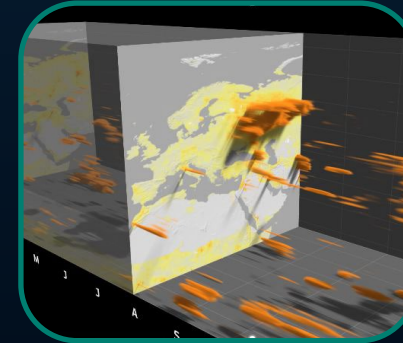
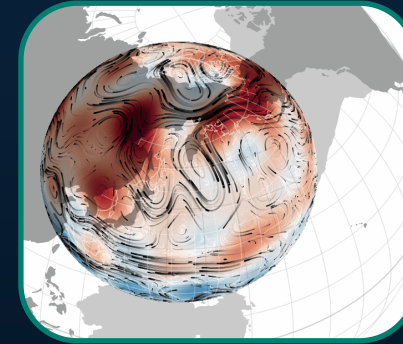




- **Deliver scientific excellence** in EO, maximizing the scientific impact of European EO capabilities and advancing our fundamental understanding of the Earth and system in partnership with EC (DG-RTD).
- **Pioneer innovative and reliable Earth Observation applications** and solutions to support international policies on the environment and sustainable development.
- **Strengthen European EO industry** competitiveness through integration of new technologies, stimulating innovative approaches to open new market opportunities.
- **Making full leverage of ICT advances** ensuring competitive R&D cycle generating information EO-derived information in an agile and rapid innovation process.

Block 4 - Earth Science for Society: Principles

- All activities will be driven by major scientific challenges, societal needs and global environmental and development agendas to deliver maximum public good;
- All activities shall be designed to complement, seed, cross-fertilize and enrich relevant activities of ESA MS national programmes, Horizon Europe, DestinE and Copernicus;
- All activities shall respond to the needs and recommendations of authoritative scientific and operational user communities and downstream industries, who shall be consulted systematically and participate in co-design, implementation and assessment;
- All activities will be enhanced and accelerated using latest cutting-edge technologies (ICT) such as AI powered Open EO platforms, Data Cubes, Cloud Computing, Big Data analysis, Open Science and Citizen science.



Today AGORA at the LPS'22

- Present the status and plans of the EC-ESA Earth System Science Partnership
- Offering an overview of main ESA and EC programmatic context
- Offering an overview of collaborative mechanisms and opportunities
- Capture the views of the scientific community
- Informing on the time line to prepare for the Full Implemental Phase in 2023.