

Earth Observation Info Days

EO for Society

in EOEP-5 and Future EO-1 Block 4

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EO Data Applications Division, 9 March 2021

1. EO Info day overview
2. Earth Observation context
3. Data Applications Division
4. EO for Society in EOEP-5 and Future EO-1 Block 4
5. Block 4 Highlights

09:00-09:05 Welcome and Introduction

09:05-09:20 Objectives and contents of Block-4 in EOEP-5/FutureEO-1

09:20-12:00 Workplan Future EO-segment 1 Block 4 presentation

09:20-09:50 Science

09:50-10:20 Applications

10:20-10:50 Enterprise

10:50-11:10 Federated Collaborative Platforms

11:10-11:30 AI4EO

11:30-11:40 Open Call

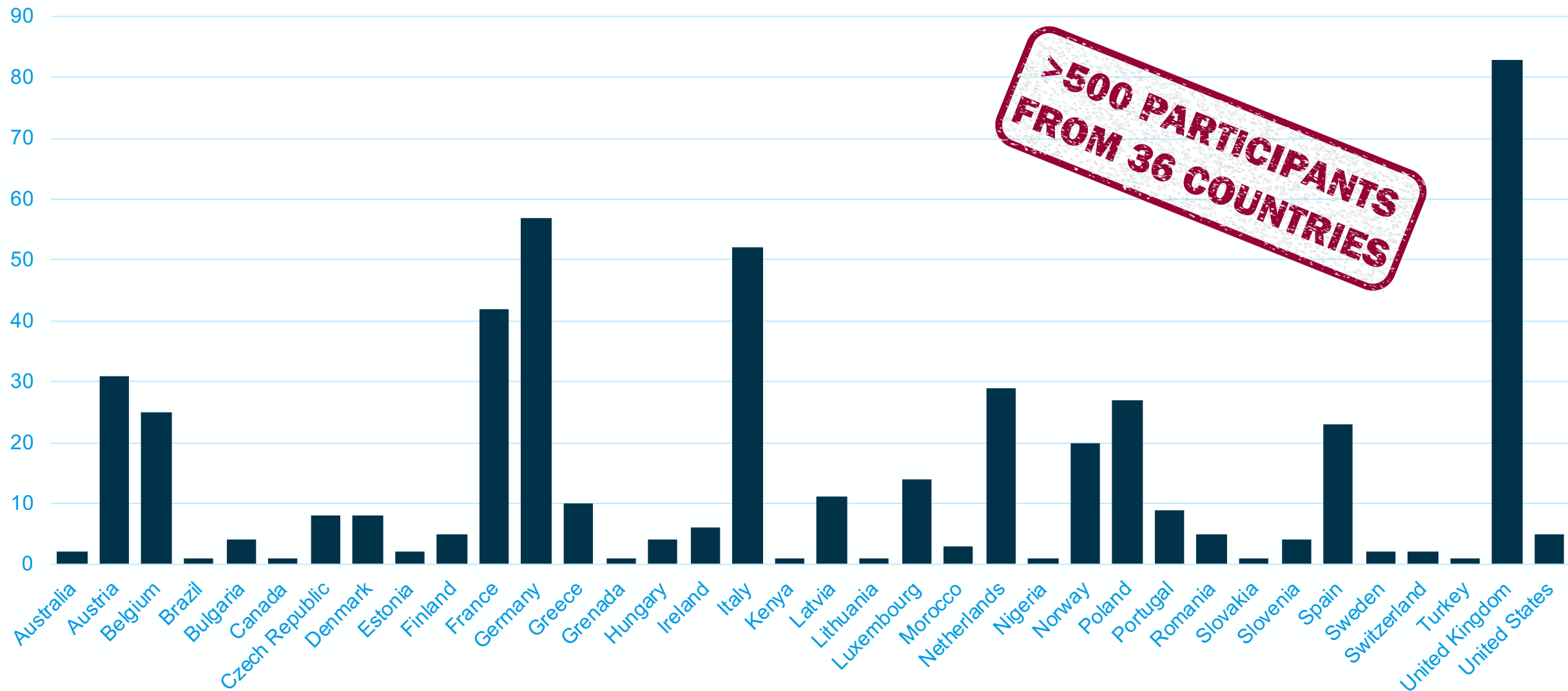
11:40-12:00 Q&A

14:00-14:30 Global Development Assistance (GDA)

14:30-15:00 Investing in Industrial Innovation (InCubed)

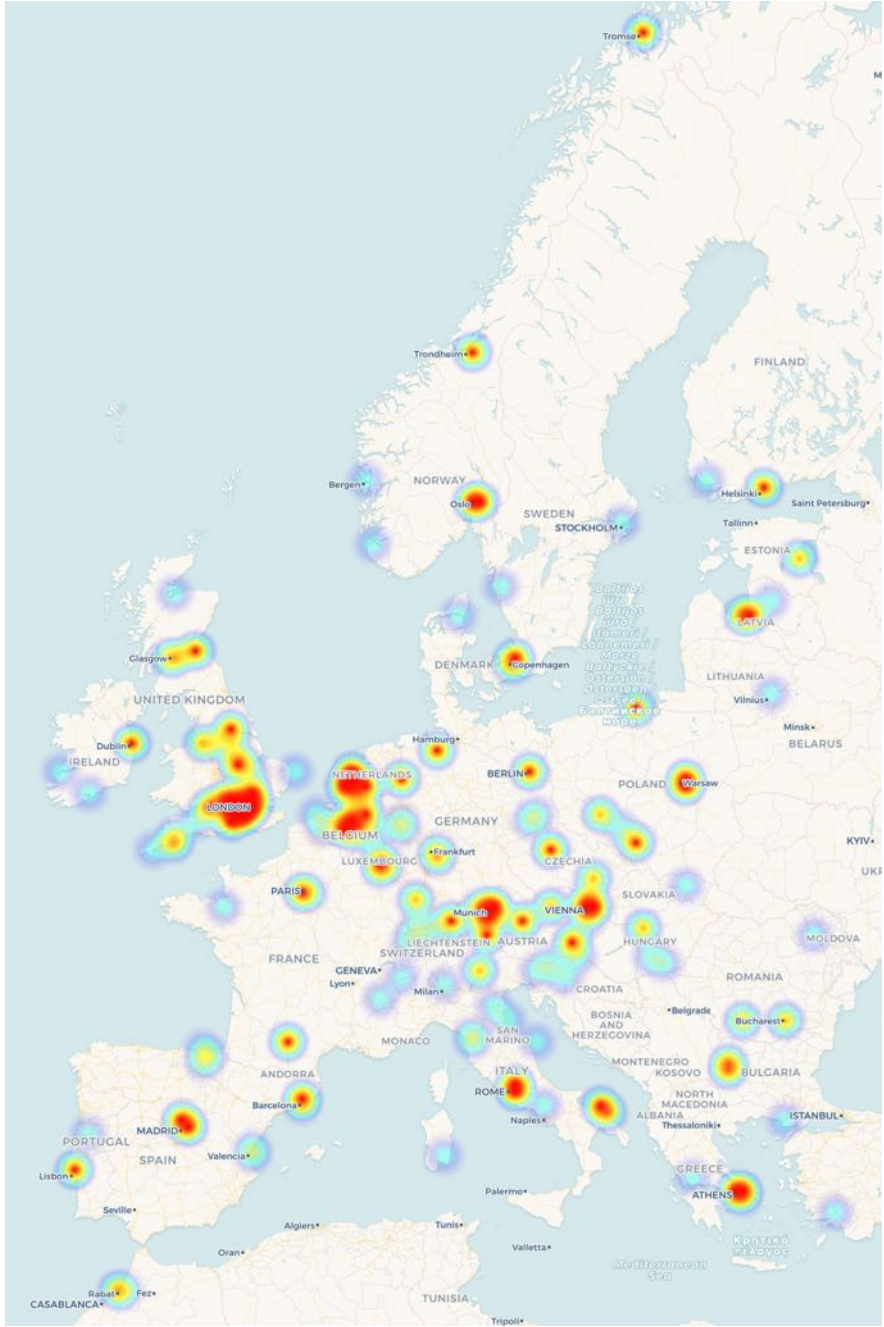
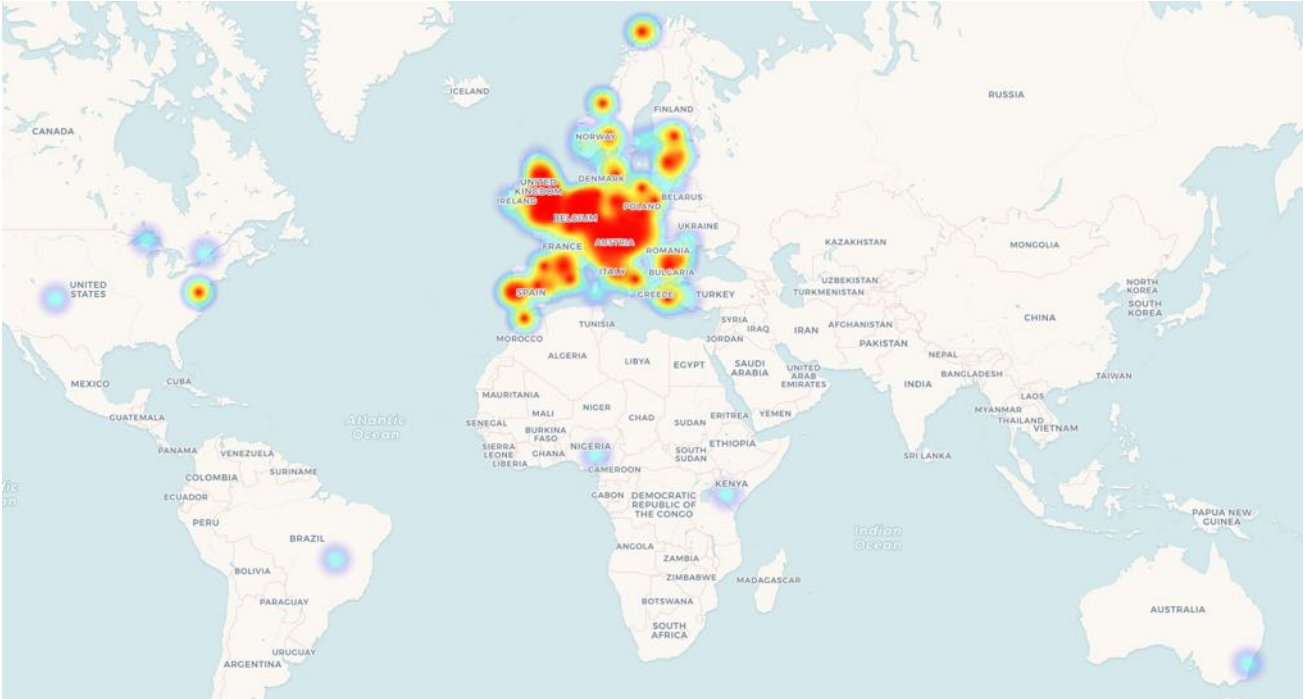
15:00 Closure

Participants

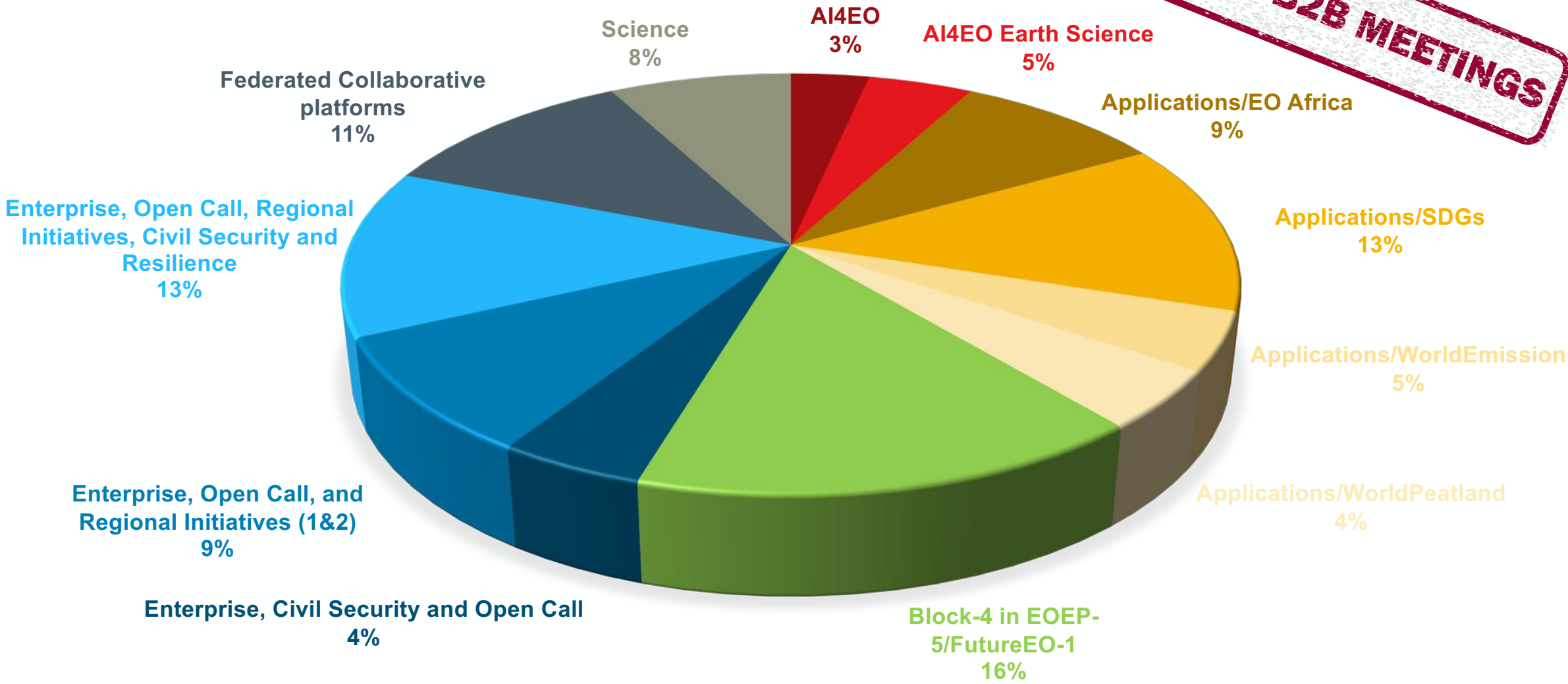


Participants Distribution

>500 PARTICIPANTS
FROM 36 COUNTRIES



B2B Distribution



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ESA EO Vision:



Taking the Pulse of our Planet

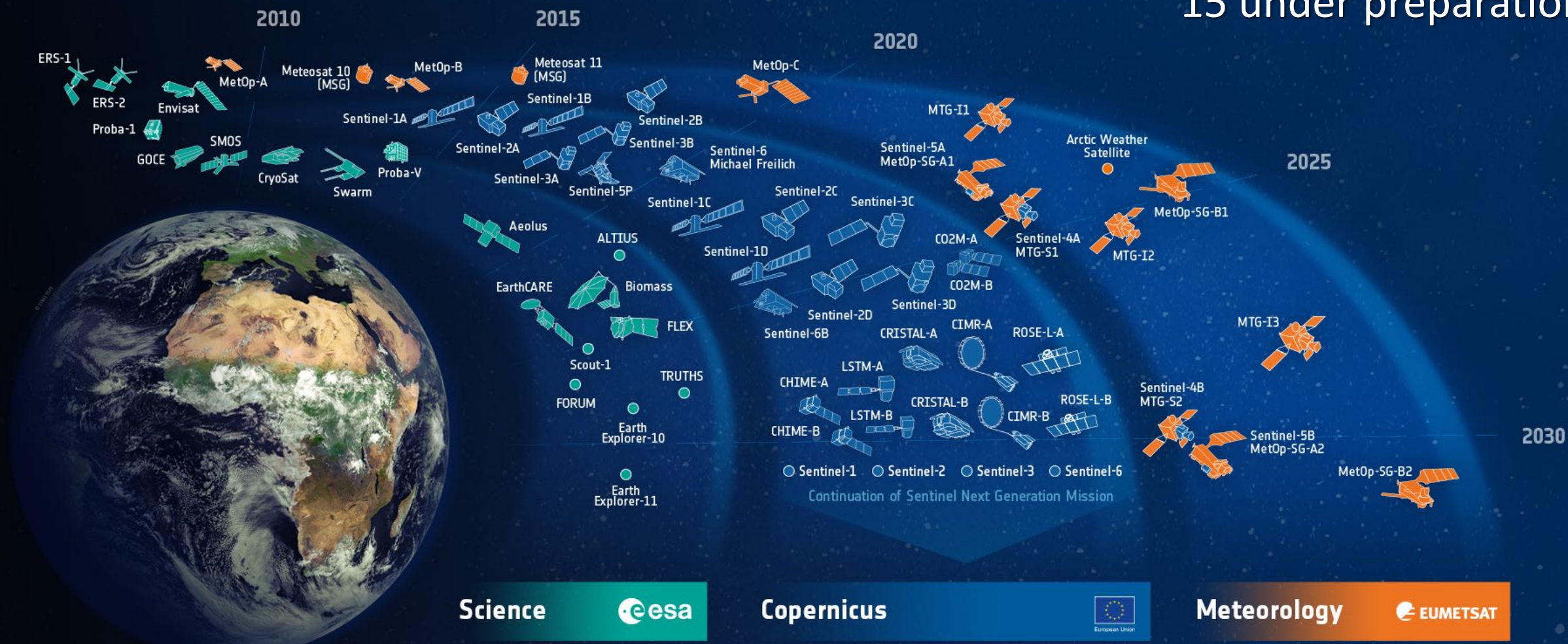


→ THE EUROPEAN SPACE AGENCY

ESA-Developed Earth Observation Satellites



16 in operation
37 under development
15 under preparation



→ THE EUROPEAN SPACE AGENCY

ESA EO Programme Cornerstones



“Different parts of one single Tree”

Customised EO

Operational EO

“Continue to develop world-class satellites to benefit European society.”

Future EO

Basic Activities

1. EO Info day overview
2. Earth Observation context
3. **Data Applications Division**
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WHO WE ARE ?

EO Data Applications Division organization

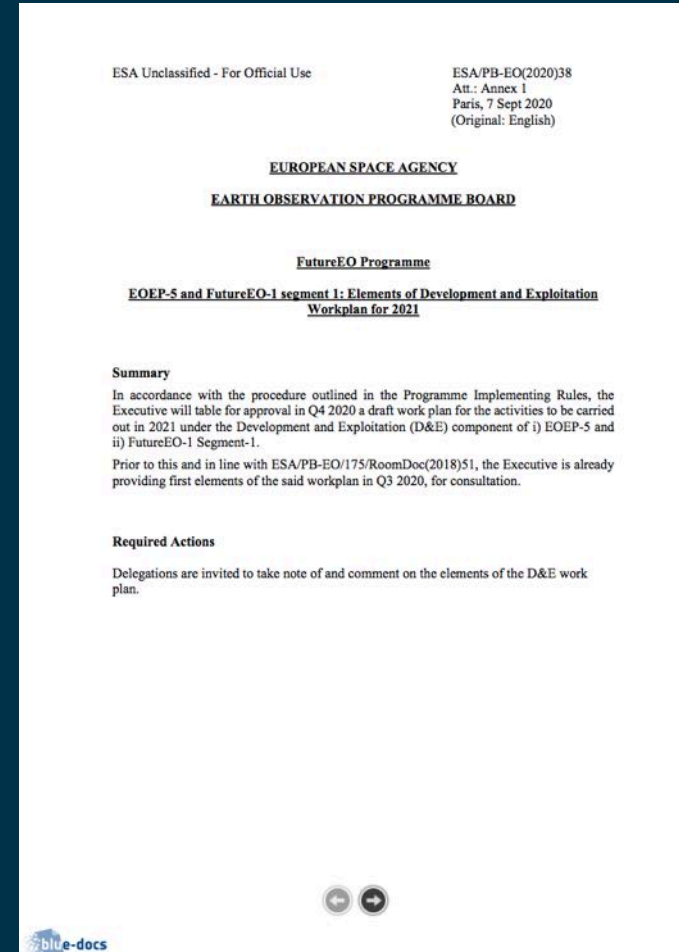
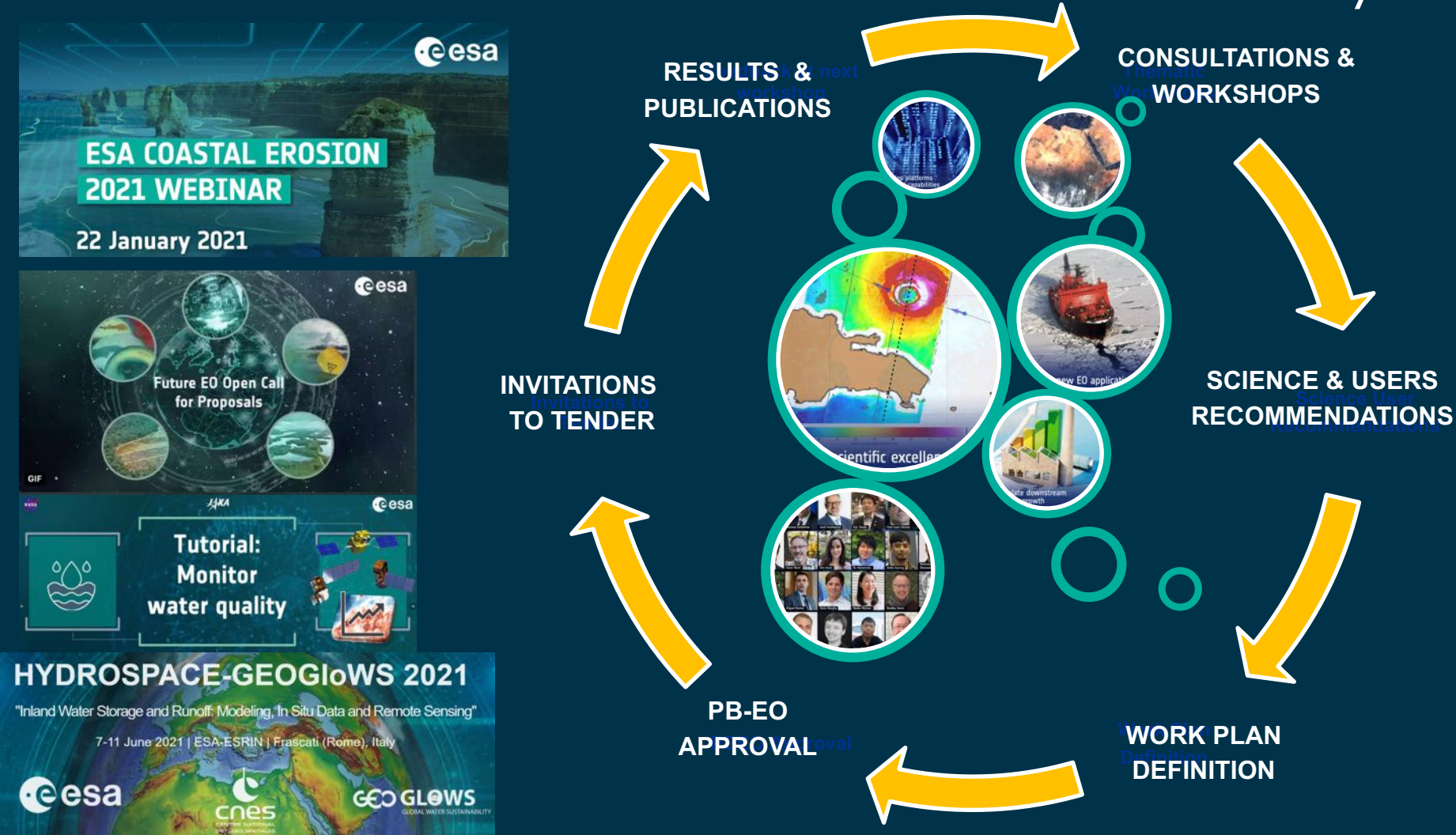


MISSION : Foster EO data exploitation to advance earth science, pioneer new applications, develop downstream sector using latest ICT tools and collaborative platforms in the Space 4.0 era

- **Science Section** Maximize the scientific impact of EO missions (*Sentinels, Earth Explorers, Meteorology and New Space missions*), Manage EO Training and Education activities
- **Applications Section** Pioneer new applications and engage new users
- **Enterprise Section** Stimulate a competitive downstream industry to foster use of EO data
- **Digital Platforms Section** Develop EO Platforms ecosystem, leverage on ICT innovations (*coordination with M.S. in Data Coordination Body*)
- **ALL**
 - ❑ Pioneer and Consolidate Regional Initiatives
 - ❑ Promote and develop international cooperation initiatives
 - ❑ Manage the EO4Society Open Call
 - ❑ Support EO Training and Education activities
 - ❑ Support EOP programmes based on relevant expertise (e.g. CCI+, GDA, Incubed+)

HOW WE WORK?

Interaction and animation of the user community



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EO Science for Society (EOEP5 Block 4)

OBJECTIVES

- ❖ *Foster scientific excellence*
- ❖ *Pioneer new EO applications*
- ❖ *Stimulate downstream industry growth*
- ❖ *Support international responses to global societal challenges*

EOEP5-Block4 Industry Info Day

PRINCIPLES

All activities shall respond to needs of authoritative international user communities and downstream industries, who shall be consulted systematically

All activities shall be designed to complement, seed, cross-fertilize and enrich relevant activities of ESA Member states' national programmes, H2020 and Copernicus.

Access and utilization of EO data shall be massively enhanced and democratized by accelerated use of ICT, bringing users to data and scalable hosted processing

EOEP5 - EO Science for Society – Key Components



Scientific
Exploitation

EO Exploitation Platforms

EO for Sustainable
Development

Public Sector
Applications

Industry Growth
New Partners

Federated Collaborative Platforms

New: Some 10% of the total budget was assigned via
open calls to support industry/users initiatives.

EOEP5-Block4 Industry Info Day

OBJECTIVES: FutureEO-1 Block 4 Earth Science for Society

Exploit European EO Capabilities to further realize full potential for the benefit of citizens:

- **Extending Europe's World-leading EO expertise** and competitive advantage;
- Building on Europe's EO ecosystem to **address societal needs and global challenges**;
- **Responding to current and emerging needs** of authoritative scientific and operational user communities and downstream industries;
- **Seeding, Complementing, cross-fertilizing and enriching relevant activities of ESA MS** National Programmes, Horizon Europe, Copernicus and other European funding;
- **Leveraging and supporting Space 4.0 drivers** such as NewSpace actors, Artificial Intelligence, "Big Data" capabilities and Citizen Science;

Future EO-1 - Earth Science for Society – Key Components

Grand Science Challenges



Regional Initiatives



EO for Resilient Society



EO for Africa



AI4EO



Security Applications



EOEP-5 Federated Collaborative Platforms

OPEN CALL Some 10% of the total budget to support innovation

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- # EO for Society OUTREACH

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- The graphic features a central circular badge with the text "We are celebrating our 10k community" at the top, "10k" in large bold letters in the center, and "With an online contest!" at the bottom. To the left, a circular callout says "Tweet your best Sentinel image with a sentence describing the importance of open science and online user community in the context of Earth observation" and "Monitoring GEO, OPEN SCIENCE (in your tweets)". To the right, another circular callout says "5 winners" and "will get two special awards". The background is dark blue with colorful confetti and several large, semi-transparent colored circles (orange, blue, red, yellow) scattered across it. The ESA logo is in the top right corner.

- **EO 4 Society Open call** 110 innovation contracts and first results presentation to DOSTAG/PB-EO, transition EOEP-5 to FutureEO-1
- **Future EO-1 Call opened in October 2020** upcoming deadlines are March 2021, July 2021 and November 2021
- **Network of Resources** approach deployed, 70 projects sponsored
- **Euro Data Cube** launched successfully
 - 40.000 monthly visitors, 276 Million requests per month
 - **Custom Script Contest** , # 70 proposals received , 2 overall winners integrated
- **Open Earth Engine** launched
- **New Space Companies** engaged (Ice Eye, Earth-I, Planet, Cosine, UP42, SpaceKnow...)
- **RACE dashboard** successfully developed from scratch in less than two months with European Industries and Entities

Rapid Action on Covid-19 and EO Dashboard



195
ECONOMIC
€

28
AGRICULTURE

244
ENVIRONMENT

32
COMPANIES

race.esa.int

- Single source of truth
- Made in Europe
- Informative & easy to use
- EO data from Copernicus Sentinels and Third Party Missions
- **Won ESA Team Award 2020**

106.000
visitors




Rapid Action on COVID-19 and EO



→ THE EUROPEAN SPACE AGENCY

- **Block 4 Activities coordination with MS**
 - Bilateral held (DE , IT ,UK, AT, FR, DE, LUX) and in preparation
 - Data Coordination Body meetings (11-2020 and 4-2021)
- **Block 4 Activities coordination with EC**
 - Joint Earth System Science Initiative with DG-RTD,
 - Rapid Action on Covid and EO with DG-DEFIS,
 - Digital Twin Earth- Precursors with DG-Connect
 - EO AFRICA with JRC
 - Sen4CAP-Sen4STAT with DG-Agri
- **Continuous Dialogue with EARSC** (Board , New Sentinels exploitation, workshop 01-2021)
- **International Cooperation** UN (e.g FAO, UNFCCC, SDGs) , CEOS (VC –SIT) , GEO , GFOI
- **EO and COVID dashboard with NASA/JAXA** at <https://eodashboard.org/>

A pair of hands gently cradling a small globe of the Earth. The globe shows the continents of Europe and Africa in shades of yellow and orange, with blue oceans. The background is a dark space with stars and a bright, glowing light source on the right.

EO Science for Society
<https://eo4society.esa.int>
https://twitter.com/EO_OPEN_SCIENCE