

Global Development Assistance

Accelerating Impact



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Directorate of Earth Observation Programmes

ADB «e-Marketplace for a Water-Secure and Resilient Asia and the Pacific» Earth Observation from Space – 18 October 2021

* using inputs from teams across ESA EOP



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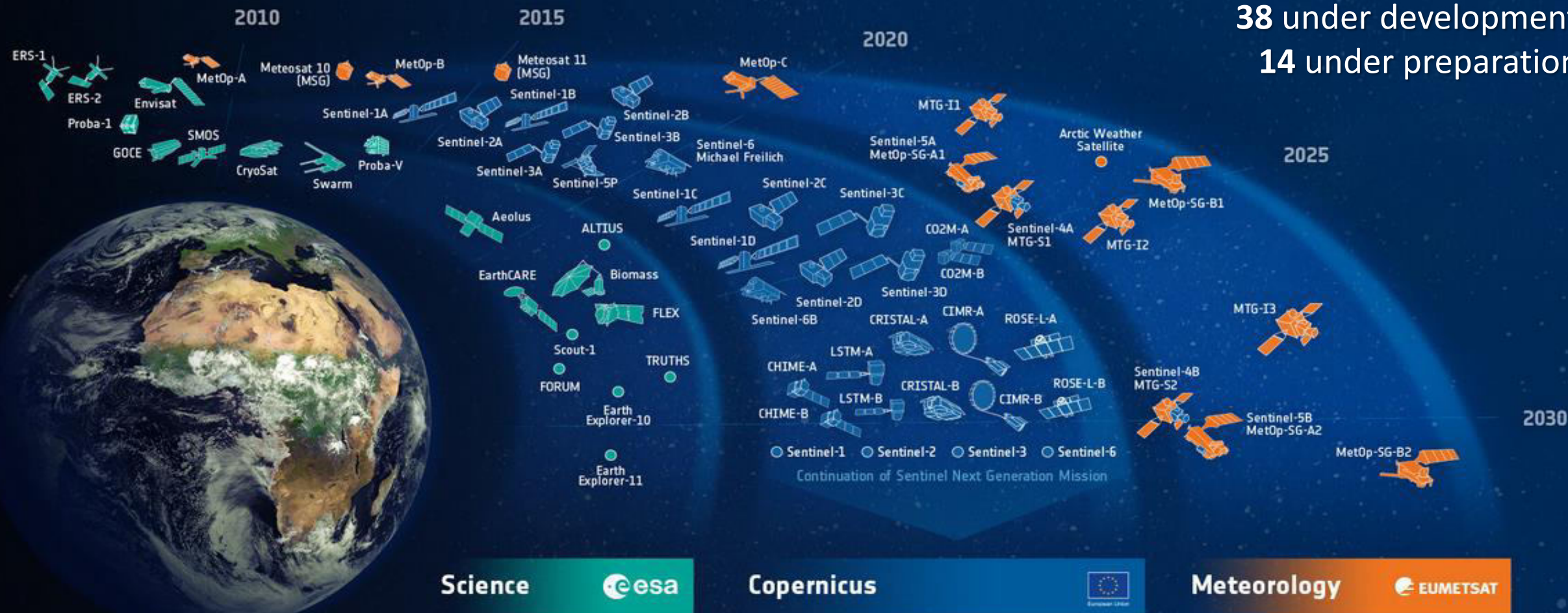
MEMBER STATES

+ 3 ASSOCIATE MEMBERS, 7 COOPERATING STATES



ESA-DEVELOPED EARTH OBSERVATION MISSIONS

16 in operation
38 under development
14 under preparation



Copernicus Sentinels for operational monitoring



250 TB
satellite data
distributed per day



full, free & open
data policy

sentinel-1

→ RADAR VISION

sentinel-2

→ COLOUR VISION

sentinel-3

→ A BIGGER PICTURE

sentinel-4

→ EUROPEAN AIR MONITORING

sentinel-5p | sentinel-5

→ GLOBAL AIR MONITORING

sentinel-6

→ SURFING THE SEAS



1957
Sputnik



Disruptive Tech

HOME > TECH
The first satellite with AI onboard is now in orbit, and its tech could completely change how we respond to wildfires
Isobel Asher Hamilton Oct 25, 2020, 12:06 PM



2020
ESA PhiSat

"All the News That's Fit to Print" **The New York Times.** LATE CITY EDITION
VOL. CVII, No. 16416 NEW YORK, SATURDAY, OCTOBER 4, 1957. FIVE CENTS
SOVIET FIRES EARTH SATELLITE INTO SPACE; IT IS CIRCLING THE GLOBE AT 18,000 M. P. H.; SPHERE TRACKED IN 4 CROSSINGS OVER U. S.

<https://www.businessinsider.com/intel-esa-launch-ai-satellite-phisat-1-2020-10>



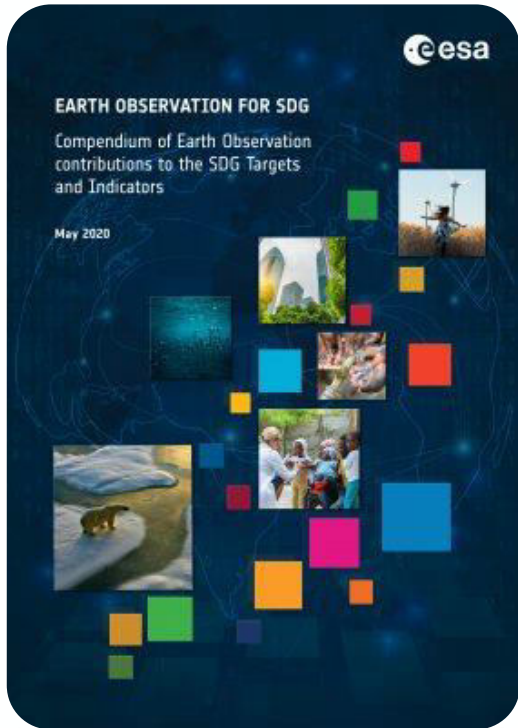
Innovation doesn't
 always come in form of a new
 product or ***new technology***...

... sometimes it's about a

new way to address
 an old ***problem***

- Bernard Lord (CEO, Medavie)

Earth Observation and the SDGs



SDGs with major opportunities for EO data

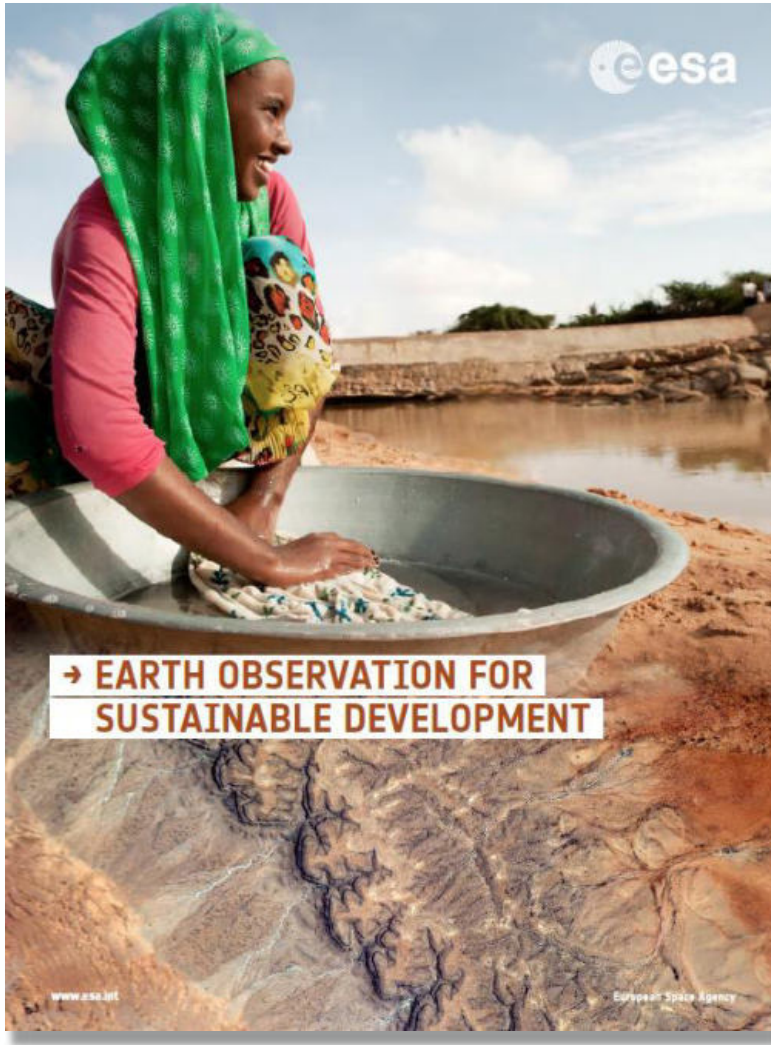


EO potential contribution to SDG Targets and Indicators

Target		Goal	Indicator							
		1.4 1.5	1.4.2							
	2.3 2.4	2.c	2.4.1							
	3.3 3.4 3.9	3.d	3.9.1							
		4 5	5.a.1							
6.1 6.3 6.4	6.5 6.6	6.a 6.b	6.3.1 6.3.2 6.4.2 6.5.1 6.6.1							
	7.2 7.3	7.a 7.b	7.1.1							
		8.4								
	9.1 9.4 9.5	9.a	9.1.1 9.4.1							
	10.6 10.7	10.a								
11.1 11.3 11.4	11.5 11.6 11.7	11.b 11.c	11.1.1 11.2.1 11.3.1 11.6.2 11.7.1							
	12.2 12.4 12.8	12.a 12.b	12.a.1							
	13.1 13.2 13.3	13.b	13.1.1							
	14.1 14.2 14.3 14.4 14.6 14.7	14.a	14.3.1 14.4.1 14.5.1							
15.1 15.2 15.3 15.4 15.5 15.7 15.8	15.9	15.9	15.1.1 15.2.1 15.3.1 15.4.1 15.4.2							
		16.8								
17.2 17.3 17.6 17.7 17.8 17.9 17.16 17.17 17.18		17.18	17.6.1 17.18.1							

Analysis performed by the GEO EO4SDGs initiative ⁷

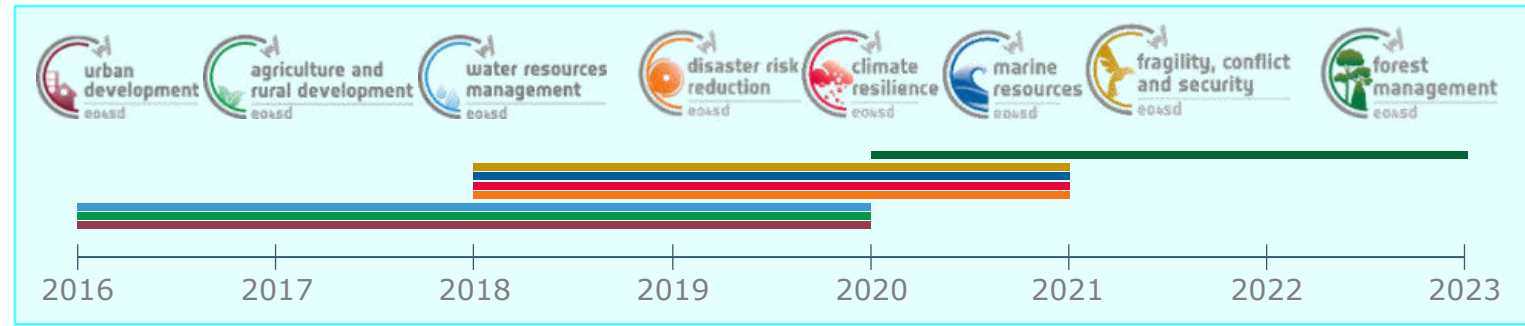
ESA EO programs in support of Intl. Development



- **eoworld:** 2008-15 | €10m
Small-scale **demonstrations of EO services** in support of IFI projects to raise awareness



- **EO4SD:** 2016-23 | €25m
Consolidate requirements, engage stakeholders (IFIs & client states) via regional demonstrations of EO



- **GDA:** 2020-25 | €30m → \$100m **Space for IDA**
Mainstream & transfer EO into operational working processes & financing of ODA/development aid as 'best-practice' source of geo-information



Agriculture

Water Resources

Clean Energy

Marine Environment & Blue Economy

Fragility, Conflict & Security

Climate Resilience

Urban Sustainability

Disaster Resilience

Monitoring & Evaluation

GDA

Global Development Assistance



Global Development Assistance: Program milestones

Timeline: Preparation milestones (selection)

January 2018: initial exploratory meeting to start a discussion on EO and Official Development Assistance (ODA) with first interested national aid agencies from across Europe, together with representatives from the national space agencies/gov. depts., OECD and DG-DEVCO

September 2018: extensive consultation with development aid sector from across Europe, together with representatives from the national space agencies and gov. depts., OECD and DG-DEVCO, focused on future actions and planning required to grow the use of EO in the development aid sector

November 2019: GDA is set up at the Space19+ ESA Ministerial Council Meeting with a subscription of €30m by 13 member states for a 5-year period

- GDA participating states:

- Austria, Belgium, Czech Republic, Finland, Germany, Ireland, Italy, Luxembourg, Romania, Spain, Switzerland, UK, Portugal



Posted on January 23, 2018 by Marjanka

→ ESA OPENING A DIALOGUE WITH NATIONAL AID AGENCIES



Posted on October 23, 2018 by Sultan

→ ESA CONTINUES DIALOGUE WITH NATIONAL AID AGENCIES

Earlier this year in January, an initial exploratory meeting took place at ESA's centre for Earth Observation (EO) in Darmstadt, Germany.



Posted on June 26, 2020 by Marjanka


→ BETTER DECISIONS IN DEVELOPMENT ASSISTANCE WITH EO

Satellite Earth Observation (EO) provides a wide range of different types of environmental information that are global, comprehensive, accurate, repeatable and timely, and that are key to the effective planning, implementation, monitoring and evaluation of Development Assistance...



Space for IDA: Resource Mobilization

Thanks to GDA, the joint **Space for IDA** initiative has **mobilized >100\$ million**, including **development finance commitments for ~69\$ million** dedicated to **capacity-building** associated with and in support of GDA **technical developments**

 **Dedicated programmatic structures** are being put in place by WB & ADB to **facilitate coordination** and **resource mobilization**, following a **holistic approach to development finance**



Digital Earth Partnership
WB Program



*Donor-oriented high-level
knowledge events in April/May*



EO for Development & Digital Transformation
ADB Program



Space for IDA: Programmatic alignment



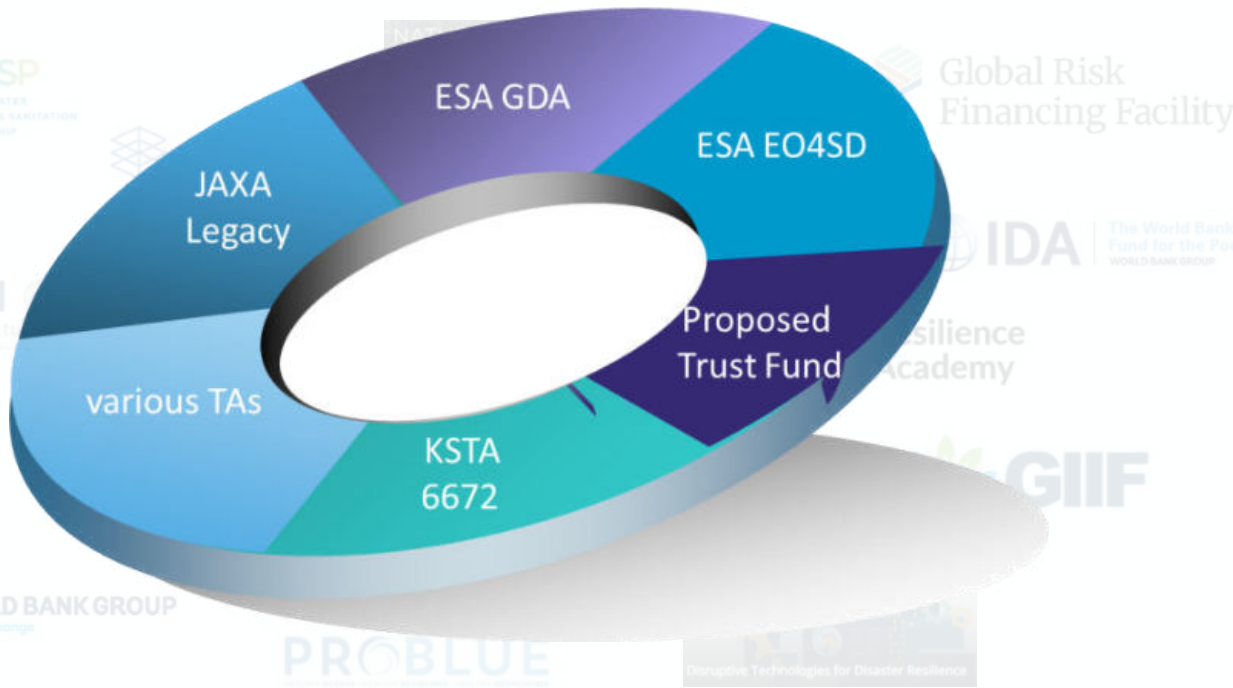
Japan Fund for Poverty Reduction



Space for IDA: Programmatic alignment

EO PROGRAM FOR DEVELOPMENT AND DIGITAL TRANSFORMATION

Unpacking what is in store for ADB



Japan Fund for Poverty Reduction



ESA GDA and ADB Water Resilience

Mainstreaming Water Resilience in Asia and the Pacific

- **ESA GDA:** 2022-25 Selected pilots in ADB pipeline - Climate Resilience, Flood Risk, Water Resources and Marine Waters **Mainstream EO Knowledge**
- **ADB's** cluster TA, Mainstreaming Water Resilience in Asia and the Pacific -Country-Specific Diagnostics, embed resilience in planning and design use technology and enable innovation **Mainstream EO Capacity Building and Skill Transfer**



From Piloting to Mainstreaming

1998

Availability

Accessibility

Awareness

Acceptance

Adoption

Knowledge Development

Capacity Building

Skills Transfer



A white graphic of a winding road with dashed lines, set against a dark blue background.

Adoption

A satellite view of Earth showing the Americas, the Atlantic Ocean, and parts of Europe and Africa.

*“ All of us have always been fascinated by the **potential** that this technology gives us in the development space. Now it has gone **beyond the fascination**. Now we are entering a stage where we can actually turn the beautiful images into **real management decisions**.”*

Juergen Voegele, VP, World Bank

space-4-IDA

International Development Assistance

“ Mainstreaming EO in dev. assistance and realizing its full operational potential.”

ESA @ e-Marketplace: Virtual Expo, Closing Plenary



<https://adb.eventsair.com/adb-e-marketplace-for-water-secure-and-resilient-asia-and-the-pacific/european-space-agency-i>

