

# Trends in Earth Observation Adoption for Development Assistance: an Analysis of International Financial Institutions' Demand

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## EUROPEAN SPACE AGENCY'S SUPPORT TO INTERNATIONAL DEVELOPMENT

2008-2015

RAISING AWARENESS:

SMALL-SCALE DEMONSTRATIONS OF EO SERVICES



2016-2023

CONSOLIDATING REQUIREMENTS

STRATEGIC ENGAGEMENT OF STAKEHOLDERS



Since 2020

MAINSTREAMING EO INTO DEVELOPMENT

OPERATIONS & SKILLS TRANSFER



### DEDICATED PROGRAMMES TO GEOSPATIAL TECHNOLOGIES

#### 2021 EO for Development and Digital Transformation Initiative

Launched by the Digital Technology for Development Unit

❖ Supports coordination under the ESA partnership, complementing GDA

#### EO IN ADB STRATEGY 2030

EO is mentioned in 3 out of 7 operational priorities of ADB Strategy 2030



Operational Priority 3

Climate Change, Disaster Resilience, Environmental Sustainability



Operational Priority 4

Making Cities More Livable



Operational Priority 5

Promoting Rural Development and Food Security

Source: ADB Strategy 2030 Operational Plans

#### HISTORIC ANALYSIS OF EO USE

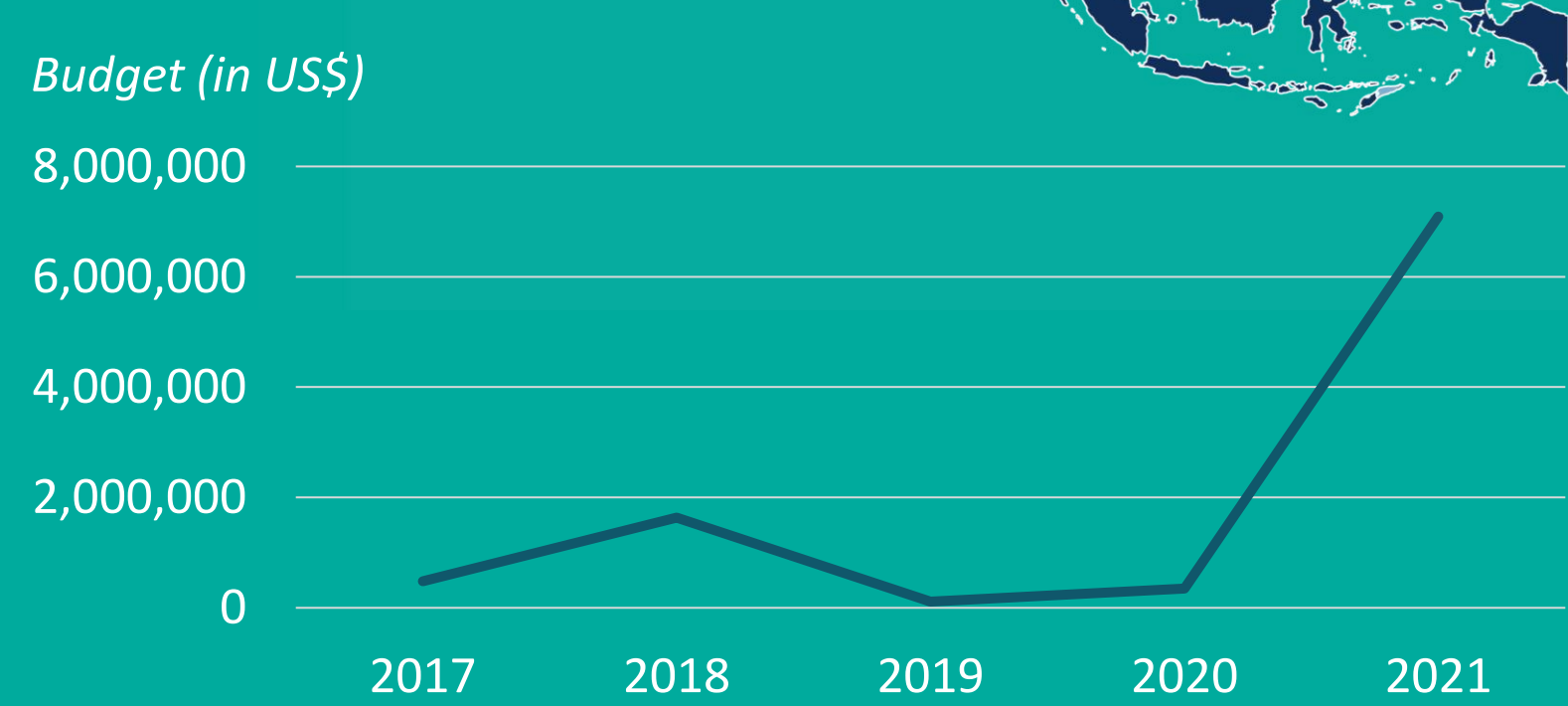
❖ 117 projects identified from 2016 to 2021 with explicit EO components<sup>2</sup>



~20% regional projects

~80% country-specific

Specific EO budget is not only higher but also more and more explicitly mentioned



Source: ADB Operational Procurement Database

#### EVIDENCE OF UPTAKE IN CURRENT PROGRAMMES

##### Empowering Developing Member Country's to Use Multispectral Satellite Images

- ✓ Current and Future actions in Cambodia, Timor-Leste and Indonesia
- ✓ Funding of 1.05 Million US\$ with possibility of more

##### Supporting the Establishment of the Armenian Spatial Data Infrastructure

- ✓ Using EO to support the Cadastre Committee
- ✓ Future possibility to create an interoperability tool for urban planning

#### THE WAY FORWARD

- ❖ Promising cases for 2022, in Indonesia and possibly in Cambodia
- ❖ Coastal & Marine subjects as new emerging thematic areas for EO applications

### DEDICATED PROGRAMMES TO GEOSPATIAL TECHNOLOGIES

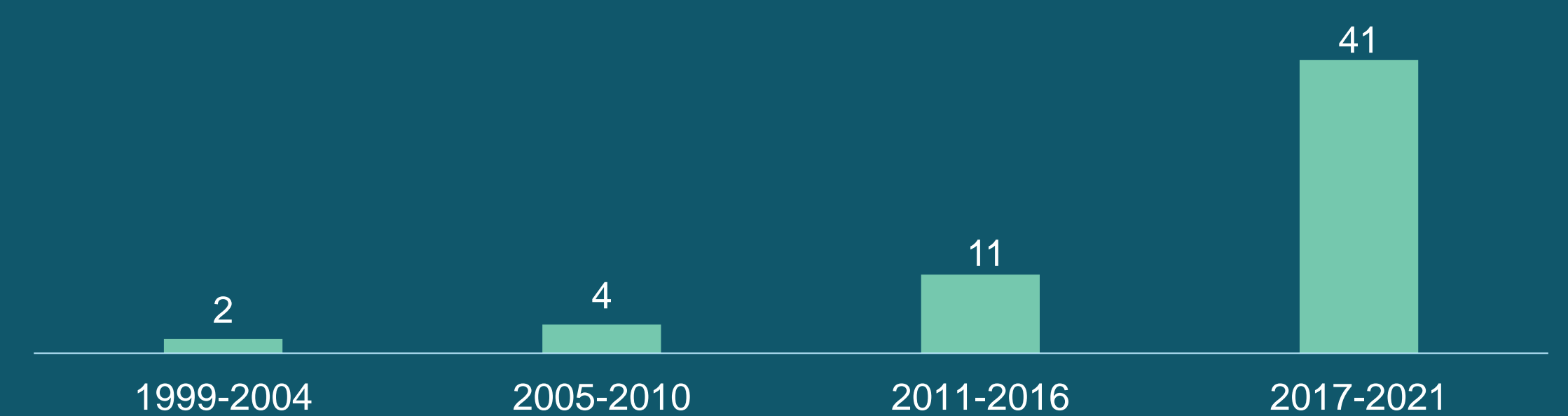


Aims at 'harnessing the new generation of EO services'

❖ Supports coordination under the ESA partnership, complementing GDA

#### INCREASING NUMBER OF EO-RELATED PUBLICATIONS

Number of publications in the Open Knowledge Repository referring to EO, RS, geospatial technology, or satellite imagery



Source: WB Open Knowledge Repository

#### NEW THEMATIC AREAS COVERED

EO is used in new topics like Finance

- ❖ Disaster Risk Financing and Insurance Program with increasing reference to EO
- ❖ 2020 Report on Spatial Finance: Challenges and Opportunities in a Changing World

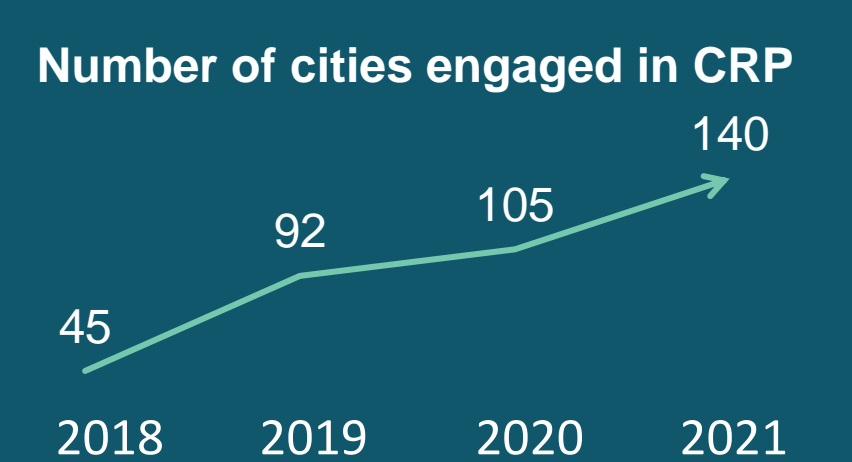
#### EVIDENCE OF UPTAKE IN CURRENT PROGRAMMES

##### Geo-Enabling initiative for Monitoring and Supervision (GEMS)

- ✓ Aims at overcoming the lack of physical field access due to Covid-19 and/or countries affected by Fragility, conflict, and violence (FCV)
- ❖ Listed by the UN Innovation Network among the Best Innovations in 2020
- ❖ 2021 Geospatial World Awards in the category "excellence in project monitoring"

##### The City Resilience Program (CRP)

- ✓ Recognition of usefulness of integrating geospatial solutions



- ❖ Dedicated programmatic area to geospatial solutions
- ❖ Involvement of WB Geospatial Solutions Working Group
- ❖ City resilience scan use extensively spatial analytics

- ✓ Continuous increase and improvement of EO-related products

- ❖ Using Synthetic Aperture Radar for flood mapping
- ❖ Incorporating more and more night-time light intensity in analyses
- ❖ Localising urban heat island through remotely-sensed Land Surface Temperature
- ❖ Analysing land subsidence risk through remote-sensing technologies

Source: CRP Annual Reports (2018, 2019, 2020 and 2021)

"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 Voegelé, VP Sustainable Development, World Bank

<sup>1</sup> Mobilisation from space and development finance

<sup>2</sup> According to a manual screening analysis

