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# Global Development Assistance

Space for IDA Roadmap – public excerpt

Caribou Space

GDA M&E Activity – Strategic Analysis

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# Overview of Space for IDA



Awareness	Acceptance	Adoption
<p>Knowledge development</p> <p>Production of materials that allow a better understanding of EO Information, applications and benefits of its use.</p>	<p>Capacity building</p> <p>For development stakeholders, including IFIs, NDAs, and developing country beneficiaries, to put them in a position to use this source of EO information in daily jobs.</p>	<p>Skills transfer</p> <p>Of existing European capabilities so that a local capacity is established in developing countries to produce &amp; deliver diverse environmental information from satellite EO data and support local users in its uptake.</p>
ESA led GDA programme	IFIs led complementary activities	

- “Space for International Development Assistance” (Space for IDA) is a **cooperation framework** implemented by ESA in **partnership with the International Financial Institutions (IFIs) World Bank (WB) and Asian Development Bank (ADB)**.
- The overarching objective of Space for IDA is to **deliver improvements in efficiencies** and impact to the operations of the various stakeholders in the Development Assistance community.
- Space for IDA is delivered through a collaboration between the ESA led Global Development Assistance (GDA) programme and **complementary activities led by the partner IFIs**.



# Objectives of the Space for IDA Roadmap



- The objectives of the Space for IDA Roadmap is to provide recommendations on how to **maximise the impact** of the Space for IDA initiative. This Roadmap is produced under the GDA M&E contract by **Caribou Space**
- This first version of the Roadmap focuses on understanding the positioning of Space for IDA **within a broader landscape**, by exploring comparable initiatives in order to identify best practices and lessons learned that could inform the way that Space for IDA is being implemented

# Structure of the Space for IDA Roadmap analysis



This analysis explores 3 levers to increase the overall impact of Space for IDA

1

Seeing the big picture:  
Ensuring that Space for IDA remains relevant and aligns with broader development priorities

2

Finding comparators:  
Identifying practices from elsewhere that have been effective in increasing the awareness, adoption and acceptance of EO information

3

Lesson-learning:  
Reflecting on the activities carried out in Year 1 to identify possible optimisation strategies

***Not included here** - Focus of the GDA Status Review and the Space for IDA evaluation*



# These levers map to the **Space for IDA** Theory of Change



1

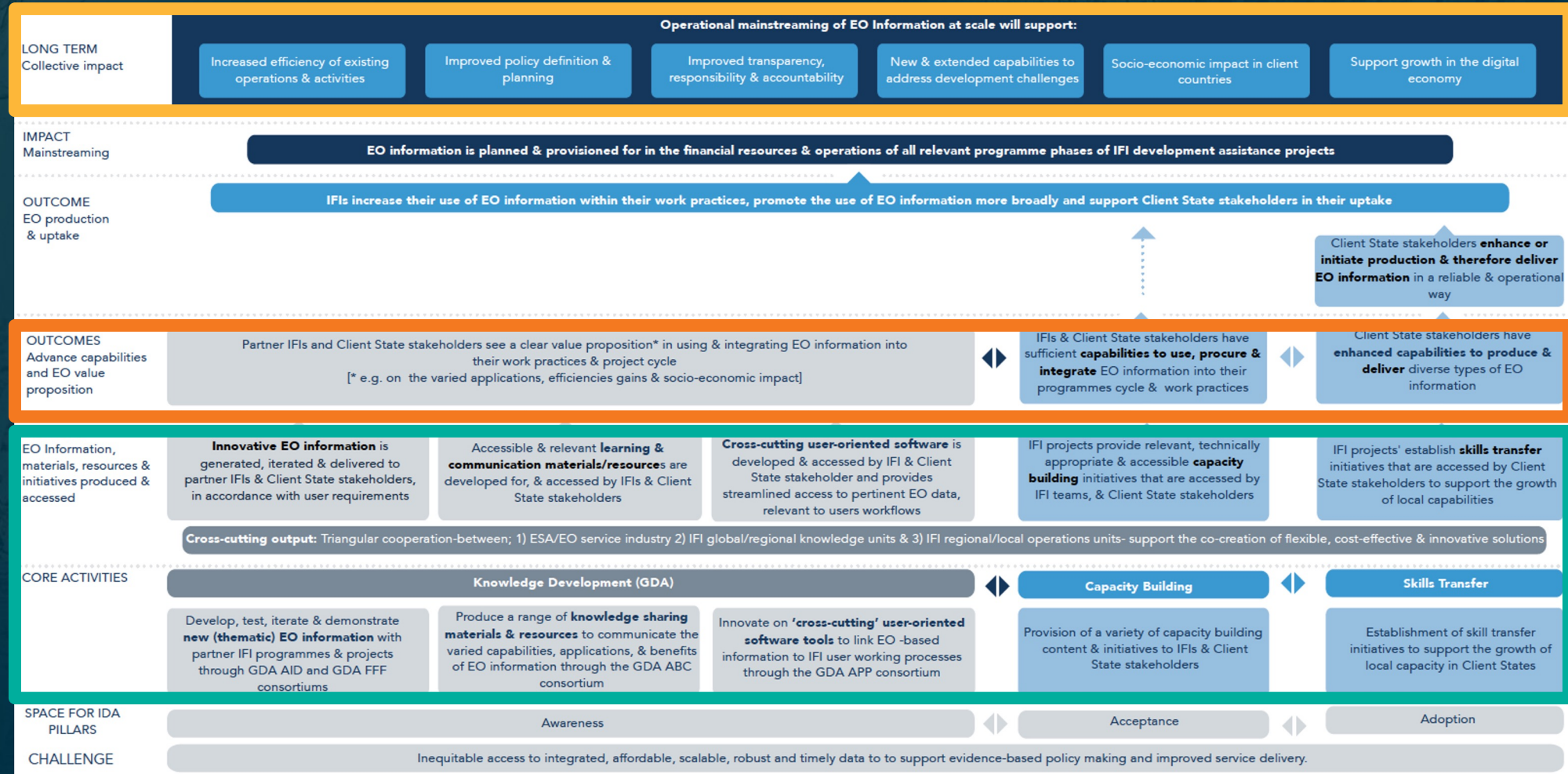
Achieving broader development impacts

2

Learning from comparable initiatives to improve outcomes

3

Optimising current processes and activities



1

# Seeing the big picture

*Ensuring that Space for IDA remains relevant and aligns with broader development priorities*

# Seeing the big picture: Development Priorities



## SUSTAINABLE DEVELOPMENT GOALS



- The **Sustainable Development Goal agenda** provides the overarching framework for all development actors, shaping the priorities and targets for Official Development Assistance until 2030
- Within the Development ecosystem, the multilateral system is gaining importance as a channel for ODA, with **increasing levels of funding**, compared to the bilateral system
- Vertical funds are also receiving a **higher share of contributions** – demonstrating a growing recognition of pressing global issues that need tackling through coordinated efforts
- We acknowledge that the SDGs are not the main target of the Space for IDA initiative and that they are not used to define the potential impacts of the initiative. However, we are taking them into account because, as stated in the SoW, this is still a framework in which the broader development community, and also therefore, the initiative is operating

# Seeing the big picture: GDA alignment with SDGs



17 PARTNERSHIPS FOR THE GOALS



Since GDA is implemented in partnership with key IFIs under the joint Space for IDA cooperation framework, the programme can be considered to be fully aligned with SDG 17: **Strengthening the means of implementation and revitalising the global partnership for sustainable development**

Specifically, it aligns to targets number 17.6, 17.7 and 17.9. The table below highlights this alignment.

SDG 17 targets	GDA alignment with SDG 17 targets
17.6: Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms	The GDA programme and cooperation framework with the IFIs brings together a unique combination of stakeholders including 1) ESA/EO service industry 2) IFI global/regional knowledge units and 3) IFI regional/local operations units. Overall, this triangular collaboration supports the co-creation of flexible, cost-effective, and innovative solutions to equitably access, use and benefit from EO information.
17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms	
17.9: Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals	

## GDA AIDs alignment with SDGs

-  Disaster Resilience
 

-  Climate Resilience
 

-  Fragility Conflict Security
 

-  Marine
 
-  Agriculture
 

-  Clean Energy
 
-  Water Resources
 

-  Urban Sustainability
 
-  Transport & Infrastructure
 

-  Forest Management
 
-  Health
 



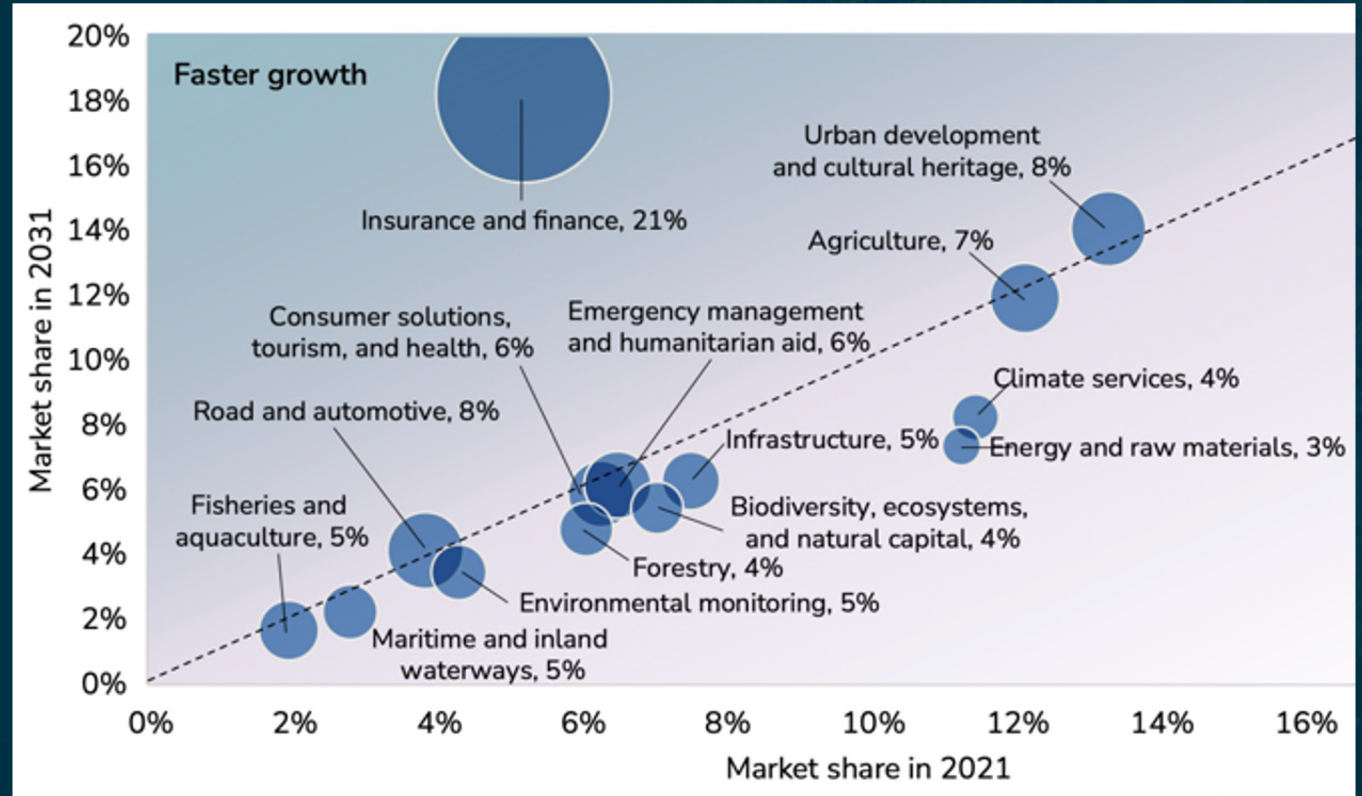


# Seeing the big picture: EO Market Landscape



## EO market – breakdown of the EO data and value-added services revenues by segment

- The main segments of the EO market are well-aligned with development priorities
- With nearly all of these segments represented in both the SDG framework and the GDA programme
- Over half of global revenues (55%) are generated by the top five segments; Urban Development and Cultural Heritage, Agriculture, Climate Services, Energy and Raw Materials, and Infrastructure.
- All of these segments are represented by at least one of the GDA AID activities



Note: The size of the bubbles represent the CAGR of each segment between 2021 and 2031.

Segment's Market Share in 2021 and 2031

Source: Euspa, 2022





*“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

Longer term impact of EO information mainstreaming: Greater use of EO information amongst IFIs and, coupled with active promotion of use cases, experiences, and other enabling conditions, will eventually lead to the mainstreaming of EO in development activities. At scale this will have multiple long-term collective impacts on how development activities are planned, implemented, and will provide various benefits, depending on the use case and scale of use:

Increased efficiency of existing operations and activities

Improved policy definition and planning

Improved transparency, responsibility, and accountability

New and extended capabilities to address development challenges

Socio-economic impact in client countries

Support growth in the digital economy

## Increased efficiency of existing operations and activities

Access to timely, reliable information can enable development operations to focus on prevention activities rather than response activities. Research shows that for every \$1 invested in prevention, about \$16 is saved. Technology and data can also save time and money, enabling the programme to focus their human and financial resources where they are needed most.

### Other initiatives that have a similar goal:

#### High Level Fora on Aid Effectiveness

- Four high level fora on aid effectiveness held between 2003 and 2011 as part of a “*continuous effort towards modernising, deepening and broadening development co-operation and the delivery of aid*” coordinated through the OECD.

#### Global Partnership for Effective Development Co-operation (GPEDC)

- [GPEDC](#) was created after the Fourth High Level Forum on Aid Effectiveness in 2011 to “*sustain political commitment and upholds accountability for improving the effectiveness of development co-operation*”. It is supported by a Joint Support Team sourced by the OECD and UNDP.

### Best practices from other initiatives, relevant for Space for IDA:

- Developing countries set their own strategies for poverty reduction - donors and development financiers then align to their objectives and systems
- Procedures should be harmonised and information shared to avoid duplication of effort
- Focus on setting and then measuring results
- Mutual accountability of donors and partners for the achievement of results
- Improving the availability and public accessibility of information on development co-operation and other development resources
- Prioritising the building of resilience among people and societies at risk from shocks, especially in highly vulnerable settings

## Improved policy definition and planning

Setting policies without a clear rationale or evidence base can mean that interventions are badly targeted, resulting in wasted resources and/or limited impacts. As programmes/projects develop country-level diagnostics and strategies to identify development challenges and opportunities, EO can contribute significant value during the planning process for interventions to tackle those challenges.

### Other initiatives that have a similar goal:

#### Global Partnership for Sustainable Development Data

- A [network](#) of over 650 private and academic organisations, and governments, that “*leverage the power of data to change minds, policies, and lives for the better*”. Among the other things, the Partnership supports access to the data that enables timely decision-making for policymaking and humanitarian action

#### EU Commission Knowledge4Policy platform

- [K4P](#) supports evidence-based policymaking by *bridging the world of policymakers and the scientists who develop that evidence in the first place*.
- [The Knowledge Centre on Earth Observation](#) helps EU policymakers to fully exploit the growing amount of EO data, products and applications

### Best practices from other initiatives, relevant for Space for IDA:

- Harnessing the use of new technologies and data sources to improve government decision-making
- Advocating for standards of interoperability in global frameworks on data and statistics
- Creating a bridge between the policymakers and the information providers through user-friendly interfaces
- Fostering a global movement of government, business, and civil society leaders promoting responsible data sharing and use
- Assessing needs of policies and translating these into technical requirements for EO products and services
- Identifying the knowledge gaps and prioritising research onto those areas

## Improved transparency, responsibility, and accountability

Real-time data feeds of implementation activities can act as feedback loops for programme managers, enabling them to adjust course or reallocate resources to maximise the impact and cost-effectiveness of the programme/project. Open access data on government programmes can support dialogue with civil society and increase the transparency of government work and thus accountability to the public.

### Other initiatives that have a similar goal:

#### International Aid Transparency Initiative

- [IATI](#) is a global initiative to improve the transparency of development and humanitarian resources and their results for addressing poverty and crises.
- *“Increased transparency is not an end in itself but an essential step towards improving the coordination, accountability and effectiveness to maximise their impact on the world’s poorest and most vulnerable people.”*

#### The World Bank’s Open Data Initiative

- It provides all users with access to World Bank data, according to the Open Data Terms of Use. The [data catalog](#) is a listing of available World Bank datasets, including databases, pre-formatted tables, reports, and other resources

#### Open Government Partnership (OGP)

- A [unique coalition](#) of governments and civil society organisations (CSOs) dedicated to making governments more open, accountable and responsive to citizens

### Best practices from other initiatives, relevant for Space for IDA:

- Standardising the way information/data is reported, so it is directly comparable across donors
- Disclosing all documents and reports produced during operational milestone activities such as country programme strategies, project design proposals, legal and financial documents as well as supervision and midterm review reports.
- Promoting more open, inclusive and participatory decision-making
- Creating knowledge sharing platforms to inform stakeholders
- Promoting this information through blogs, social media and other public media in order to inform the civil society
- Constantly updating websites with qualitative and quantitative data

## New and extended capabilities to address development challenges

EO provides new and extended capabilities that allow programmes/projects to address issues that were not previously possible, for example, EO enables programmes/projects to monitor activities in fragile and conflict-affected settings where some locations are inaccessible to the personnel on the ground.

### Other initiatives that have a similar goal:

#### AI for Sustainable Development Goals (AI4SDGs) Think Tank

- [AI4SDGs Think Tank](#) is a global repository and an analytic engine of AI projects and proposals that impacts SDGs. The goal is to promote the positive use of AI for Sustainable Development, and to investigate on the negative impact of AI on Sustainable Development.

#### Automated System for Customs Data (ASYCUDA)

- [ASYCUDA](#) is a computerised customs management system that covers most foreign trade procedures. The software is developed by UNCTAD and is installed at the request of developing country governments.

#### World Economic Forum's IoT for Sustainable Development project

- The [project](#) aims to encourage the use of IoT to accelerate progress on the SDGs: it explores scalable and replicable models of business, investment and collaboration across industries and with public authorities to support the design of commercially viable IoT deployments that can maximise their social value potential.

### Best practices from other initiatives, relevant for Space for IDA:

- Identifying and defining the problem clearly in order to ensure that it can be solved using available technologies and capabilities
- Ensuring that models are transparent and interpretable to guarantee that results are easily understandable and reliable for stakeholders
- Considering ethical and legal implications of novel processes and technologies
- Building capacity among stakeholders and building a community is important to ensure the sustainable implementation of these solutions
- Providing education and training to stakeholders to promote awareness and acceptance of new capabilities
- Collaborating with those investing in the development of cutting-edge capabilities and technologies, including the private sector and academia
- Monitoring and evaluating the impact of these technologies

## Socio-economic impact in client countries

Through the four intended impacts outlined in the previous slides, the quality of outcomes and impacts of these programmes/projects can be enhanced, benefiting client countries and having knock-on effects on the day-to-day lives and opportunities of people in that country.

### Other initiatives that have a similar goal:

#### World Bank infoDev

- From 2012 through 2022, [infoDev](#) worked on accelerating the growth of agribusiness, climate technology, and digital startups and catalysing entrepreneurial ecosystems in developing countries.

#### UN High-level Advisory Board (HLAB) on Economic and Social Affairs

- The [Board](#) has provided advice to the UN on broad economic and social issues, including near-term prospects and risks for the world economy, frontier technologies, inequality, migration, issues associated with countries in special situations.

### Best practices from other initiatives, relevant for Space for IDA:

- Involving the community and adapting to local context to ensure that the solutions meet the need of the local population
- Building capacity among local stakeholders to generate their own economic opportunities
- Creating scalable and replicable solutions, so that the impact can be expanded to other areas and other countries
- Implementing a gender-sensitive approach in the design and implementation of initiatives
- Addressing systemic issues such as poverty, inequality and discrimination, in order to produce sustainable impact
- Implementing long-term sustainability mechanisms to ensure that the impact is maintained even after the end of the initiatives

## Support growth in the digital economy

As the EO information services sector grows in developing countries, there will be a multiplier benefit for their local economies. Local organisations will generate products, jobs, and revenues, providing economic benefit to the local economy.

### Other initiatives that have a similar goal:

#### WB Digital Development Partnership (DDP)

- [DDP](#) brings public and private sector partners together to advance digital solutions and accelerate safe and inclusive digital transformation in developing countries.

#### ADB Digital Technology for Development

- ADB supports digital infrastructure, technology industries, start-ups, digital services in several domains, data analytics and insights, and digital technology capacity building and upskilling in developing countries

#### Digital Europe Programme

- [DIGITAL](#) is a new EU funding programme focused on bringing digital technology to businesses, citizens and public administrations.

### Best practices from other initiatives, relevant for Space for IDA:

- Investing in the development of digital infrastructure, such as broadband networks and data centres
- Providing support for digital entrepreneurship, such as incubation and accelerator programs
- Promoting digital literacy and skills among individuals and businesses



2

# Finding comparators

*Identifying practices from elsewhere that have been effective in increasing the awareness, adoption and acceptance of EO information*

# Finding comparators: for the three activities



## Knowledge Development

*Production of materials (i.e. new information products, user-oriented analytics tools) that allow a better understanding of EO information, applications and benefits of its use (thereby addressing **Awareness**)*

## Capacity Building

*Training for development stakeholders, including IFIs, NDAs, and developing country beneficiaries, in order to put them in a position to use this source of environmental information in their daily jobs (thereby addressing **Acceptance**);*

## Skills Transfer

*Transfer of existing European capabilities so that a local capacity is established in developing countries to produce & deliver diverse types of environmental information from satellite EO data in a reliable and operational way, and support local users in its uptake (thereby addressing **Adoption**).*





## Knowledge Development

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# Finding comparators: Knowledge Development in GDA



# Finding comparators: Best practices for KD



We have identified the following best practices after analysing several comparable knowledge development initiatives:

- **Development of user-oriented products:** the initiative develops products that address specific user issues or challenges through a process of consultation and validation of the requirements with the user itself
- **Production of user-friendly materials & website:** the initiative provides user-friendly and impact-oriented knowledge material (i.e. success stories, projects insights and blogs) collected on a user-friendly website, in order to facilitate awareness raising among stakeholders
- **Effective communication strategy:** the initiative promotes its work through various communication activities, such as social media posts, videos, events such as webinars and conferences
- **Collaboration with external stakeholders:** the initiative involves collaboration and participation from external stakeholders, including experts in the field, and relevant organisations
- **Inclusion of an M&E component:** the initiative includes a methodology for evaluating its effectiveness and monitoring progress towards its objectives
- **De-risking industry activities in developing countries:** the initiative acts to incentivise industry to pursue opportunities in developing country markets that they otherwise might deem overly risky



# Finding comparators: Matrix of the KD initiatives



Does the initiative aim to support the sustainable development of low and middle income countries?

Focus on development

Focus on EO

Does the initiative focus EO applications?



## Development of user-oriented products

### KNOWLEDGE CENTRE ON EARTH OBSERVATION



- KCEO conducts deep dive assessments of specific EU policies through interviewing and workshops, analysing value chains, defining quantitative requirements, assessing current products/services/infrastructure, and making suggestions for improvement.

- SCO supports the development of operational tools that must be co-designed with their end-users to answer specific needs. One optional criteria for SCO projects is including an analysis of the associated business model.



- GEO Initiatives aid in transitioning research-based ideas and prototypes into products and services for Earth observation to support a variety of users.
- GEO Community Activities are a range of activities that include communities of practice, early-stage projects or pilots, and established services. They provide an opportunity for stakeholders to collaborate and contribute to GEO's Vision and Mission with minimal structure. They serve as a starting point for new activities that may evolve into GEO Initiatives.

## Production of user-friendly material



## KNOWLEDGE CENTRE ON EARTH OBSERVATION



## Humanitarian GIS Hub

- The website is very user-friendly: you can experience different user journeys depending on what you need to do with the data.
- *Data Pathfinders* are tools to help users access and use NASA's Earth science datasets through an easy-to-use interface, promoting equal and open access. They provide links to commonly-used datasets and guide users in selection and use.
- In the section [EU policies and Earth Observation](#), you can find explanatory texts on various topics related to Earth Observation. These texts are relatively short, well-structured and supplemented by pictures and diagrams to facilitate understanding. At the end of each text, there are links to further information on that topic. An example is the text about [Earth Observations for Biodiversity](#)
- The website includes a FAQ section, with a focus on [call for projects](#)
- The website provide an [interactive map](#) that includes all the projects implemented by the initiative, with location, description, duration and partners involved. The projects can be filtered by topic and targeted SDGs
- Website section "[Get Inspired](#)" that includes Story Maps, blogs and other case studies on best practice, filtered by use cases, clusters, technology and location



# Finding comparators: Examples from other KD activities



## Effective communication strategy



- This initiative envisages a [communication strategy](#) that includes, among other elements, the communication approach, a list of channels, a list of key stakeholders and an evaluation plan with metrics and methods of measurement



- The *annual GEO week* showcases the latest innovations and ideas in Earth observation data and technology from GEO members, participating organisations and private sector companies.
- The *annual GEO Symposium* explores how the portfolio of GEO products and services can provide insights and evidence for policy development and decision-making
- GEO is active on many social media platforms: Twitter, Facebook, LinkedIn, Instagram, YouTube and Flickr



- The Netherlands Space Office and Rabo Foundation organised the [conference](#) 'Space for Food Security: On the Right Track' to reflect on lessons learned and to explore future trends in Space for Food Security and Inclusive Finance.

- The NSO produced a [podcast series](#) to answer some questions about space for food security



- GSMA produced a [podcast series](#) discussing key issues with mobile network operator and humanitarian partners

# Finding comparators: Examples from other KD activities



## Collaboration with external stakeholders



- ESDS Program depends on strategic partnerships with public and private companies to help further its data management and data development efforts. The most common means for creating these partnerships is through Space Act Agreements ([SAAs](#)).
- New and existing partnerships are helping ESDS address several current needs, such as supporting fast and parallel data access and utilise cost-effective storage structures and infusing commercial AI and ML techniques and expertise



- The WRD community is a network of practitioners and stakeholders exchanging knowledge and tools on women's resilience to disasters through blogs, webinars, guidance, and training supported by a community of experts.
- The [WRD Expert Register](#) unites and makes available experts from across the globe on gender-responsive disaster and climate risk reduction and resilience. Experts are grouped by topics and subtopics of expertise, by geographical area of expertise, and by languages spoken.



- Review panels comprising international experts supervise the research conducted in the r4d programme. They evaluate the preliminary as well as the finalised proposals and monitor the ongoing projects.



# Finding comparators: Examples from other KD activities



## Inclusion of an M&E plan



- IPP established a rigorous Monitoring and Evaluation framework at both the Programme level and for individual projects to build the evidence base for using satellite technologies for sustainable development



- The initiative envisages the publication of annual and quarterly progress reports to inform the audience about the programme's progress
- Annual work plans provide a summary of the programme outcomes and high level activities for the upcoming year, highlighting strategic context, key challenges and risks, and an activity scheduled overview. Here's the [2022 Annual Work Plan](#)



- The G4AW M&E framework focuses on four components: 'output', 'use of service', 'outcome' and 'impact'. A strong focus is placed in digital inclusion (reaching women and youth).
- G4AW projects have a business-oriented approach. This implies that more business-related indicators such as customer satisfaction and business analytics. This can result in improved product-market fits, which is expected to benefit the financial sustainability of the services post-project phase.



- The [M4H MEL framework](#) aims to facilitate reflection and sharing about challenges and outcomes across the programme because strong information flows between the teams are needed to ensure that the programme lives up to its potential

# Finding comparators: Examples from other KD activities



## De-risking industry activities in developing countries



- The UK Space Agency provided the bulk of funding for all projects
- Technical assistance on both technology and sustainability, specifically via a Sustainability Hub
- Building strong and trusted international partnerships, e.g. with government ministries, to maximise investments and sustainability prospects was fundamental to IPP



- The Innovation Fund awards grants of up to £500,000 to innovators working in the humanitarian sector whose ideas leverage mobile technology
- The Strategic Partnerships team leverages its technical and sectoral expertise as facilitators
- Regulatory and policy guidance to maximise impact



- Over the course of four years, 25 partnerships have been granted financial support by the Netherlands Space Office. They have carried out G4AW projects in countries where economies and livelihoods are vulnerable and highly dependent on climate.



- The WRD programme makes multi-million-dollar co-financing with technical support, the WRD knowledge hub, and the WRD register of experts and practitioners available to all its partners.



- The r4d programme finances research partnerships between Switzerland and African, Asian and Latin American countries in order to provide policy - makers with scientific and development-relevant knowledge



# Finding comparators: Capacity Building (CB)



## Knowledge Development

*Production of materials (i.e. new information products, user-oriented analytics tools, promotional outputs) that allow a better understanding of EO information, applications and benefits of its use (thereby addressing **Awareness**)*

## Capacity Building

*Training for development stakeholders, including IFIs, NDAs, and developing country beneficiaries, in order to put them in a position to use this source of environmental information in their daily jobs (thereby addressing **Acceptance**);*

## Skills Transfer

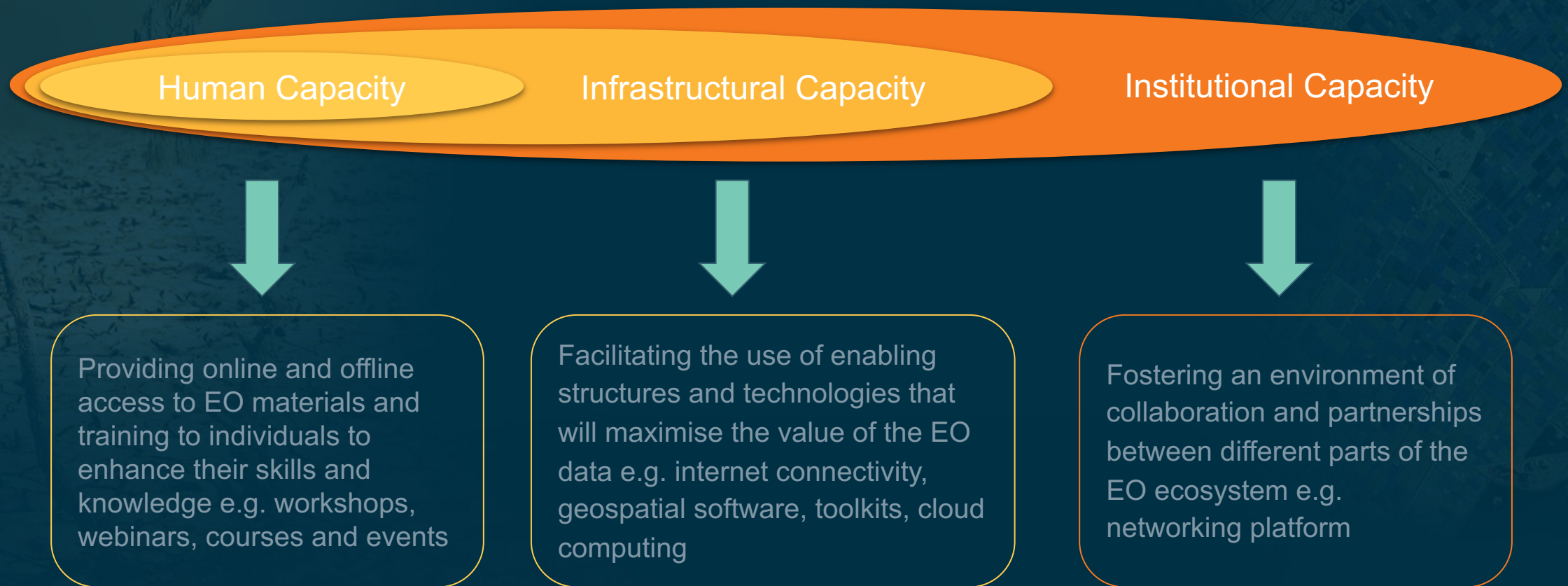
*Transfer of existing European capabilities so that a local capacity is established in developing countries to produce & deliver diverse types of environmental information from satellite EO data in a reliable and operational way, and support local users in its uptake (thereby addressing **Adoption**).*



# Finding comparators: Types of Capacity Building



**Capacity Building:** Training for development stakeholders, including IFIs, NDAs, and developing country beneficiaries, in order to put them in a position to use this source of environmental information in their daily jobs (thereby addressing Acceptance).



# Finding comparators: Best practices for CB



After assessing a large variety of capacity building activities the following best practices were identified:

- **Offers user-centred activities:** the initiative analyses the user's need and translates them into clear requirements.
- **Includes an M&E component:** the initiative includes a methodology for evaluating its effectiveness and monitoring progress towards its objectives.
- **Provides support to non-technical users:** the initiative offers materials that are easy to understand, can be completed by non-technical users or require no previous programming or technical knowledge.
- **Adopts a holistic approach to capacity building:** the initiative recognises the importance of all three forms of capacity building and the interlinkages between them; human (e.g. skills), infrastructural (e.g. tools) and institutional (e.g. networking platform).
- **Builds on existing capacities:** the initiative takes advantage of capacities already available so as to avoid duplication, working with local stakeholders, tools and platforms already in place.
- **Collaborates with diverse group of stakeholders:** the initiative partners with a wide range of stakeholders from the private, public and civil sector, including local actors.



# Finding comparators: Examples from other CB activities



## Offers user-centred activities



- Co-developed a [Consultation and Needs Assessment Tool](#), a tool with which SERVIR aims to engage diverse stakeholders and identify and prioritise needs.
  - The main objective is building buy-in and establishing (or reinforcing) the SERVIR community of practice.
  - A two-way exchange: listening to and learning from stakeholders and sharing information on SERVIR capabilities and resources.
  - The initial Consultation and Needs Assessment process then evolves into an ongoing engagement and outreach activity over the life of the service, creating a channel for improving and refining approaches.
- Works with regional centres of excellence that focus on different thematic areas offering a better understanding of user needs.



- The [capacity development principles](#) point to the importance of addressing “*local needs, based on the local context, building local ownership of capacity development activities – increasing the effectiveness and sustainability of results*” and that though “*responding to immediate needs*” is key to “*capture the interest and active engagement of the people involved*”, it is important “*to keep in mind longer-term capacity needs and priorities.*”



- Introduced a discovery phase to offer more time for end user engagement, co-design and agreement on partner contributions and responsibilities, and to enable greater analysis of the political economy and end users - including assessing capability – thereby reducing risk and enhancing sustainability prospects (in-line with the adjustment to add an extra 3-month phase at the beginning of GDA AID activities).





# Finding comparators: Examples from other CB activities



## Includes an M&E component



- Capacity building was a strand of the theory of change - both at programme and project level with training activities and outcomes recorded and reported throughout the programme
- Best practice at the project level included assessments of changes in awareness and understanding of EO technology and products for those involved in the project



- Developed a [MEL System](#) for capacity building activities with six key actions: (1) Set goals & Indicators as presented in the overarching Theory of Change, (2) Collect, Store and Validate Data on the capacity building interventions and outcomes of the Strategic Pathways, (3) Analyse the Data, (4) Report on the Data, (5) Make Data-Driven Management Decisions (6) Collect Lessons Learned.
- The evaluation of capacity interventions not only assesses satisfaction and level of understanding of users, but also on the results, impact and return on investment of the training, particularly on the ability of participants to apply the new skills in their working environment.



- [Robust Quality Assurance Framework](#): all learning-related events are assessed against a set of over a dozen standards prior to delivery in accordance with the Institute's Quality Assurance Framework to facilitate certification with external quality schemes, such as the e-Learning programmes and institutions in international capacity building (ECBCheck) certification process.'''



- Evaluation activities are carried out before, during and after training and capacity building activities in order to verify the level of implementation of the skills and knowledge acquired.
- In-line with Results-Based Management (RBM) methodology, indicators of success and satisfaction for all its activities based on performance (tests) and evaluations (assessments) allowing for benchmarking over time and regions/activities.'



# Finding comparators: Examples from other CB activities



## Provides support to non-technical users



Digital Earth  
AFRICA

- According to the [GEO Implementation Plan of Digital Earth Africa](#) capacity building activities “are available through a range of DE Africa platform interfaces ensuring ease of access to a diverse range of users, from those with no technical expertise, to a highly qualified systems developer who can access live code to create and share their own products”.



EO AFRICA

- Offers multiple courses, including those who have no knowledge of programming or EO:
  - [MOOC on Drought Assessment](#), for which “no prior knowledge to Earth Observation (EO) is required”.
  - Webinar series e.g. Introduction to Cloud Computing for EO Analyses for which “basic python scripting is appreciated but not essential”.
  - Online courses which start off with needing “basic programming skills in python”.
  - Face-to-face courses require technical skills which are covered in the MOOC and two of the online courses.



- Training modules were differentiated by experience:
  - Entry level awareness-raising e.g. Introduction to Geo-spatial Products, and Application of Products to Urban Planning
  - Expert technical-training programmes e.g. Introduction to Geo-spatial Products, Management and Pre-processing Steps, Thematic and Product Related Processing Steps, Product Accuracy Assessment.



- Offers courses based on different levels:
  - Introductory: provides an overview of a topic or can be taken by any learner without having a specialised background in the topic.
  - Intermediate: may require some prerequisite knowledge on the topic. It may be aimed at professionals from other related areas.
  - Advanced: aimed at professionals working on the topic and trying to strengthen their core competencies or acquire some new ones with direct application to their field



- GSMA specialises in delivering free, high-quality training and resources to policymakers and regulators, who may not have any technical expertise or background in mobile technology. The courses help authorities facing a growing skills and knowledge gap to keep pace with one of the most dynamic sectors in technology; mobile.



# Finding comparators: Examples from other CB activities



## Adopts a holistic approach to CB



- The [Capacity Building Strategy](#) supports new communities of practice and contributes to existing communities of practice by addressing three levels of CB:
  - Human: increasing knowledge and skills.
  - Infrastructure: facilitate acquisition and implementation of infrastructure.
  - Institutional: strengthening institutional capacities and arrangements.



- DE Africa adopts a holistic and systemic approach to CB, which encompasses different levels of interventions:
  - Human: Providing access to training for increased skills and training.
  - Infrastructural: Providing tools, services, information and resources that enable better decisions and organisational strengthening.
  - Institutional: Facilitating collaboration and cooperation across domains, sectors and borders, enabling societal impact.



- Besides addressing human CB, it also addresses:
  - Infrastructural CB, by assessing infrastructural needs (broadband, stable connections, internet access) to facilitate e-learning and develop e-Commerce.
  - Institutional CB as its trainees of its human CB joined alumni networks which motivated them to encourage their local countries to plug the gaps in existing legislation to better accompany the development of e-Economy.



# Finding comparators: Examples from other CB activities



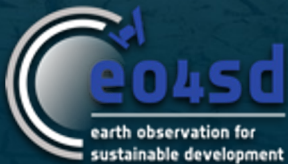
## Builds on existing capacities



- The [Service Design Tool](#) points to the importance of assessing existing resources, including the following:
  - Availability of hardware/software resources and of human/financial resources needed to sustain tools
  - Use of existing data sets, processes for managing data sets and mechanisms for disseminating data.
- The [Consultation and Needs Assessment Tool](#), emphasises the importance of learning about existing efforts; taking advantage of existing resources, enabling policies, partnerships, relationship to service beneficiaries, access to data etc.



- In its [Capacity Development Strategy](#), two of the strategic pathways are to align with:
  - GEO: Embedding of the expertise of the different GEO flagships and initiatives and AfriGEO in the implementation.
  - Other platforms and initiatives: Incorporating existing training opportunities in the Implementation Plan.
- The [GEO Implementation Plan of Digital Earth Africa](#) encourages programme alignment with partners to help leverage the knowledge base, capabilities and services of aligned programs e.g. Collect Earth Online tool developed by SERVIR. The aim is not to only avoid duplication of effort but most importantly add value to the existing programs by providing additional services, compute resources, analysis ready datasets with easy access to users in Africa.



- The [Evaluation of EO4SD](#) found that there were various examples of the initiative building on existing capacities e.g. the consortium for Agriculture and Rural Development “*maximised value for money by reusing of existing tools and platforms such as FAO WaPOR portal which monitors water productivity*”.



- One of diplo's [capacity development principles](#) is to “build on existing capacities”.

# Finding comparators: Examples from other CB activities



## Collaborates with diverse group of stakeholders



- Run in collaboration between a variety of different partners:
  - CEGA: a hub for research on global development at the University of Berkeley enabling access to a large network of scholars.
  - New Light Technologies Inc.: a consulting firm with expertise in IT and science.
  - International Initiative for Impact Evaluation: develops evidence on development effectiveness in low- and middle-income countries.



- Has a strong partnerships with academia, private sectors and innovators, which help UNOSAT to develop learning material and training contents with bleeding edge technologies.
- Collaborates with an in-country national expert: the bridge between the technical team and the beneficiary ministry. They work on-site and hand-in-hand with the partner for the implementation of activities



- Courses are developed in close collaboration with the government, training institutions and other stakeholders (e.g. Central American Integration System) in order to address the country's training needs, ensuring local ownership to and sustainability of the capacity building process, as well as knowledge sharing and multiplier effects.



- Works with a wide range of partners to develop and deliver its capacity building activities, including the ITU Centres of Excellence, public and private training institutions, universities and industry partners, as well as development agencies.
- Areas for collaboration include developing training materials, delivering training events through the ITU Academy platform, participating in the ITU Digital Transformation Centre Initiative and the ITU Centres of Excellence programme and financial and other forms of support to capacity building initiative.



- Deliver face-to-face courses through partnerships with reputable international regulatory, training and funding organisations, enabling the programme to reach the most appropriate regional regulatory audiences, and to deliver training where it is needed most.
- Adopted a flexible approach which has resulted in a variety of partnership models.
- All courses are accredited by the UK Telecommunications Academy, an internationally recognised centre of excellence in the provision of academic, technical and vocational education in the field of telecommunications.



# Finding comparators: CB at the World Bank



## Open Learning Campus ACCELERATING SOLUTIONS THROUGH LEARNING

The World Bank's single destination for learning about the Bank and international development.



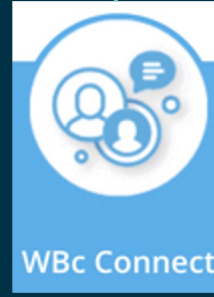
WBx Talks

Podcasts, videos, webinars, infographics, apps & games



WBa Academy

Online and face-to-face courses



WBc Connect

Networking platform offering online collaboration tools

- The **Open Learning Campus** addresses all three types of capacity building; human through WBx Talks and WBa Academy, infrastructural and institutional through WBc Connect. The WB is in the early stages of implementing a new learning platform called EdCast
- Offers different types of learning resources from games to courses in a variety of different languages.
- Reached **250,000** learners, **190** countries and **450** digital learning activities in just 4 years.
- Topics range from 'Access and Connectivity' to 'Data Analytics' and themes range from agriculture to health, nutrition and population.
- The World Bank also conducts **capacity building through ongoing programme and project activities**, which fall outside of the OLC scope



## How the WB performs against best practices

<b>User-centred</b>	OLC courses are customised to individual needs and improved through iterative feedback loops, allowing a co-creation process.
<b>M&amp;E</b>	<ul style="list-style-type: none"> <li>For OLC, there is no information on M&amp;E, however participants can rate their courses.</li> </ul>
<b>Non-technical</b>	Most of the courses offered on OLC are not tech focussed and have no technical prerequisites.
<b>Holistic approach</b>	<ul style="list-style-type: none"> <li><b>Human:</b> OLC provides learning products &amp; programmes for staff and external users. WBI points to the importance of enhancing skills through workshops and training (learning activities).</li> <li><b>Infrastructural &amp; Institutional:</b> the WB frequently supports capacity building activities that build on existing infrastructure and institutions e.g. the <a href="#">Kenya Transparency and Infrastructure Project</a>, where the WB helped extend the reach of broadband networks (infrastructural) and contributed to improved government efficiency and transparency through eGovernment applications (institutional).</li> </ul>
<b>Existing capacities</b>	OLC is modelled on successful digital learning platforms such e.g. The Aspen Institute, Khan Academy, TED, & Massive Open Online Courses hosted by Coursera & edX.
<b>Collaborative</b>	The OLC has partnered with a variety of stakeholders to deliver courses & workshops including donors, National & Regional Centres of Development Excellence, Academic and Knowledge Institutions and Partners.

Source: [WBI Capacity Development Results Framework \(CDRF\)](#)

# Finding comparators: CB at the ADB



ADB



CAPACITY BUILDING  
INSIDE PROGRAMMES

ADB

eLEARN

A think tank within ADB leading innovative research and capacity building in the Asia and Pacific Region. CBT activities are delivered via policy dialogue, course-based training, e-learning, and publications.

ADB is transitioning from capacity building efforts at an individual project-by-project level to more coordinated efforts to build capacity around common implementation challenges

A venue for collaboration, engagement, interaction and dialogue among the ADB staff, its stakeholders, fellow learners and development practitioners online.





## How ADB performs against Best Practices

<b>User-centred</b>	Capacity building and training (CBT) activities are designed to be demand-driven
<b>M&amp;E</b>	<p>There are three layers of evaluation of CBT at the ADBI:</p> <ol style="list-style-type: none"> <li>1. Online exit evaluation surveys: conducted immediately after activities to measure participants' overall perception of events and the extent to which they learned new policy ideas that are relevant to their current positions.</li> <li>2. Mid-term self-assessment:             <ol style="list-style-type: none"> <li>a. Structured interviews: capture information that may have been missed in the exit evaluation survey (feedback on a deeper level)</li> <li>b. Post-assessment survey: evaluate how the results measure up against the goals set when the activities were being designed.</li> </ol> </li> <li>3. Long-term impact analysis survey: evaluates how recurring CBT flagship activities contribute to ADBI's goals using systematic statistical modelling.</li> </ol>
<b>Non-technical</b>	<p>Participants in ADBI training programs are mid- and senior-level officials from government agencies of ADB's developing member countries and include largely non-technical focus areas.</p> <p>ADB eLearn includes many non-technical courses.</p>
<b>Holistic approach</b>	<p>ADB offers training workshops &amp; eLearning programs (human), and in its <a href="#">Strategy 2030</a> it states that “will support countries in developing policies and improving the regulatory environment for the digital economy. expanding internet connectivity, and investing in hardware and software” addressing both infrastructure and institutional CB. ADBI's <a href="#">Strategy for Developing Asia's Future</a> includes “strengthening governance and institutional capacity” with “robust policies and regulatory frameworks”.</p>
<b>Existing capacities</b>	<p>Within the ADB's assessment of quality of capacity building operations is “Quality-at-Entry”, ensuring that CBT activities take advantage of existing capacities.</p>
<b>Collaborative</b>	<p>ADBI has partnered with governments think tanks and universities and collaborated with national, regional, and international partner organisations to develop CBT activities. Collaborations with e.g. OECD, WHO, Cambridge University, UNDP, the World Bank Institute, Thailand Ministry of Public Health, the University of Indonesia etc.</p>

# Finding comparators: Skill Transfer (ST)



## Knowledge Development

*Production of materials (i.e. new information products, user-oriented analytics tools, promotional outputs) that allow a better understanding of EO information, applications and benefits of its use (thereby addressing **Awareness**)*

## Capacity Building

*Training for development stakeholders, including IFIs, NDAs, and developing country beneficiaries, in order to put them in a position to use this source of environmental information in their daily jobs (thereby addressing **Acceptance**);*

## Skills Transfer

*Transfer of existing European capabilities so that a local capacity is established in developing countries to produce & deliver diverse types of environmental information from satellite EO data in a reliable and operational way, and support local users in its uptake (thereby addressing **Adoption**).*



# Finding comparators: Introduction to ST

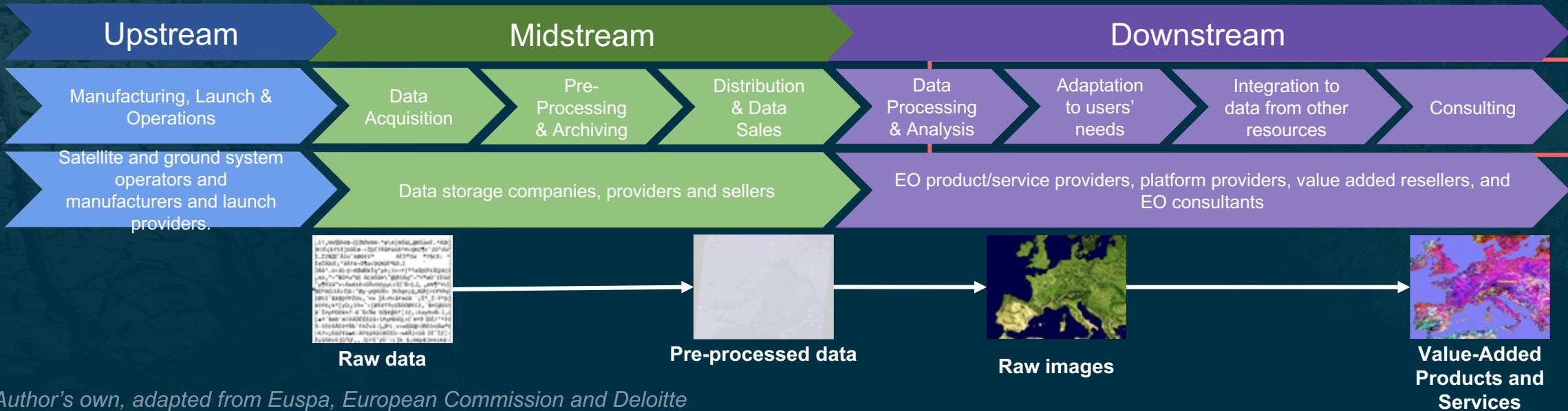


**CAPACITY BUILDING**  
Learning how to use EO

VS.

**SKILLS TRANSFER**  
Building EO

Skills Transfer of existing European capabilities is essential so that a local capacity is established in developing countries to produce & deliver diverse types of environmental information from satellite EO data in a reliable and operational way, and support local users in its uptake (thereby addressing Adoption). Local expertise is especially important in the downstream part of the value chain, particularly when it comes to adaptation to users' needs. EO products and services will only be valuable if these are tailored/customised to local needs. Additionally data sources will need to be integrated into locally available data, as well as analysed with local insight and consulted based on local capabilities.



Source: Author's own, adapted from Euspa, European Commission and Deloitte

# Finding comparators: Best practices for ST



After assessing a large variety of skills transfer activities the following best practices were identified:

- **Adopts a holistic approach to skills transfer:** adopts the different ways to transfer skills for a more holistic approach including but not limited to (1) on the job training, (2) training for trainers, (3) offer or supports relevant courses at universities, (4) organises hackathons, (5) supports start-ups that use EO data.
- **Adopts co-creation principle:** skills transfer initiatives are co-created with the users it is aimed at to ensure relevance and value over the long-term.
- **Identifies and collaborates with local champions:** initiative identifies and forms a partnership with local champions that help drive local adoption of EO.



# Finding comparators: Examples from other CB activities



## Adopts a holistic approach to skills transfer



- Offers training of trainers workshops e.g. [Training of trainers workshop on synthetic aperture radar and Google Earth Engine](#)
- Virtual and in-person hackathons e.g. [Hackathon on Synthetic Aperture Radar \(SAR\)-based flood forecasting methods](#)



- Offers a wide range of programs that aim to further EO entrepreneurship in Europe:
  - Copernicus Masters: A competition for entrepreneurs, start-ups & students, who develop new applications based on Copernicus.
  - Copernicus Accelerator: offers 50 of Europe's boldest innovators and start-ups a unique 12-month tailor-made coaching programme.
  - Copernicus Incubation programme: supports entrepreneurs and start-ups working with Copernicus data, to create innovative, commercially viable products and services.
  - Copernicus Hackathons: The European Commission finances 20 Copernicus hackathons every year throughout Europe. Any organisation can apply to organise a Copernicus hackathon.



- Implemented a variety of activities to establish local digital capacity in developing countries and foster digital incubators:
  - Provides technical assistance to help existing business incubators improve and scale up their operations.
  - Facilitates the development of new business incubators in areas that are not currently served.
  - Organises workshops to connecting existing entrepreneurs with new starting entrepreneurs from different environments and countries to discuss issues related to digital entrepreneurship
  - Providing grants in developing countries: Operational grants (for existing incubators), capacity building grants (for new and start-up incubators) and planning grants (planning of business).



- The [Implementation Plan for DE Africa](#) includes several key strategic pathways that are forms of skills transfer. These include:
  - Training trainers: Train staff of the regional centres, for them to be able to train staff of the national institutions
  - Innovation & entrepreneurship: Provide SMEs with easily accessible EO data to innovate & create new products and services
  - Startups: Promote startup culture by allowing startups to test ideas and develop prototypes on DE Africa platform.



## Adopts co-creation principle



- Users can now join SERVIR hubs, USAID and NASA in co-developing their own geospatial services for their citizens. This shift has allowed SERVIR to co-create services in response to user needs has lead to an increased in the uptake of EO data and the production of EO products.



- Often co-creates its skills transfer activities directly with those it is addressed to e.g. the Indigenous FOSS4G Hackathon 2021, which the GEO Indigenous Alliance organised in partnership with Space4Innovation. The challenges of the hackathon were codesigned by indigenous communities from all over the world to ensure challenges were culturally appropriate to indigenous beliefs - a hackathon by and for Indigenous communities.



- In the document [A holistic, demand-driven and impact-oriented approach to Capacity Development for DIGITAL EARTH AFRICA](#), co-creation and design is adopted as a guiding principle in ensuring the uptake of EO.
  - *“Co-creation is about equal partnership, shared ownership, joint responsibility and stakeholder engagement, recognising the needs, ambitions, knowledge and specific expertise of the participating parties. It is about a collaborative process of problem-solving within a learning cycle, rather than just providing the solutions.”*

# Finding comparators: Examples from other CB activities



## Identifies and collaborates with local champions



- Often collaborates with local actors and uses local platforms that have been identified as champions in the area e.g.
  - Radiant Earth and the Ugandan AI and data science research group at Makerere University designed an [ML4EO course](#) with a GIZ FAIR Forward program grant. To ensure the long-term impact of the bootcamp it was added on *atingi*, a popular digital learning platform in Africa.



- To ensure local adoption of EO an anchor institution (or CHAMPION) per country or region is selected:
  - The champion receives dedicated support and training from the DE Africa CD Coordination team.
  - The champion should be a knowledge institute with training, education and outreach experience in the region.
  - The champion is responsible for seeking alignment with existing programs and initiatives, and develop an overview of service and education providers as well as national CD programs).
  - To ensure a multiplier effect, the Champion is overseen by a regional CD support hub, which will be managed and coordinated by the Continental CD support hub and DE Africa UNECA Office.



- InfoDev has mHubs and mLabs that are locally owned - that is local actors are identified to start and manage the mHubs
- infoDev was motivated by a grassroots-oriented entrepreneurship support agenda and decided to stimulate technological innovation by giving operational independence to in-country grantees that implement mLabs and mHubs, and leave most of the implementation decision making to local partners.

