



GDA



Space for International Development Assistance

Cooperation Framework
Year 1 Review

September 2023



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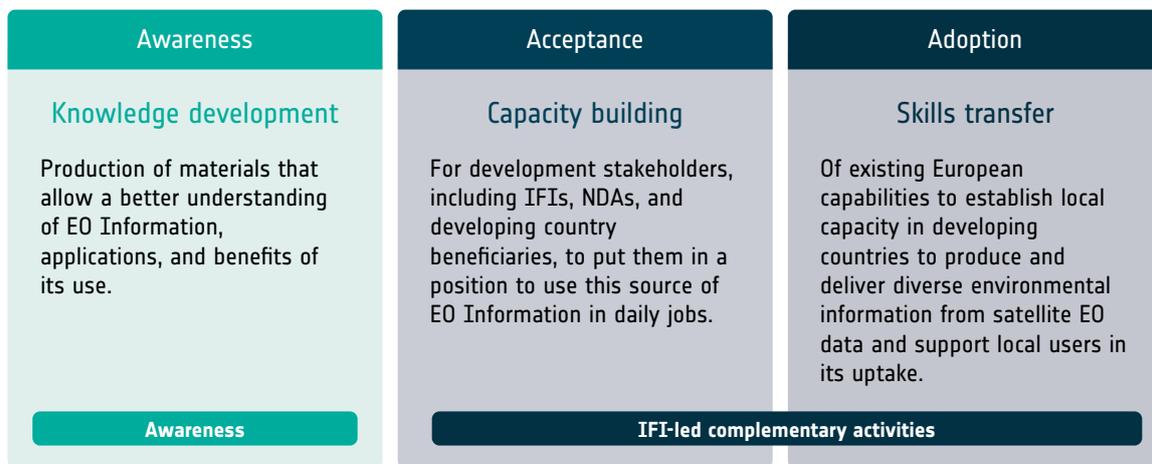
Contents

Executive summary	4
Summary of GDA Programme to date	5
Triangular cooperation	5
Complementary activities	6
Impact within IFIs and CSs	7
Conclusions	7
Background: Space for IDA Review	8
Methods	9
Navigation	10
Summary of GDA Programme to date	11
Impacts of GDA	12
Triangular cooperation	13
Key findings	14
Recommendations to improve triangular cooperation	22
Complementary activities	25
Key findings	26
Recommendations to improve implementation of complementary activities	31
Impact within IFIs and CSs	33
Key findings	34
Recommendations	38
Conclusions	39
Annex 1	
Evaluation methodology	41
Annex 2	
GDA Theory of Change	45

Executive summary

The “Space for International Development Assistance” (Space for IDA) cooperation framework is 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.

FIGURE 1: Space for IDA Pillars



This Space for IDA Review is completed by Caribou Space as part of the Monitoring and Evaluation and Impact Assessment (GDA M&E) activity. The objectives are to assess the status and progress of all Space for IDA activities as of January 2023. It identifies lessons and consequent recommendations for all parties related to Space for IDA on implementation processes and outcomes to maximise the framework's potential impact.



Summary of GDA Programme to date

The GDA Programme is reviewed in detail in *ESA Global Development Assistance Status Review Year 1*.¹ This report focuses on overarching progress of the cooperation and gives a high-level summary of GDA results to date. The GDA Programme is the ESA-led branch of the Space for IDA cooperation framework. It was brought to life by ESA Member States at the Space19+ Ministerial Council in November 2019, with the first activities under the Agile EO Information Development (AID) activity line beginning in September 2021. As of January 2023, GDA has started work with seven GDA AID consortia, who have begun developing 36 distinct EO Information Developments (EOIDs) for 32 IFI projects in 40 countries during the reporting period. An additional 30 products are in active discussions with IFI projects, with work expected to begin in 2023. At this point in GDA, technology development cycles are still in progress, and only 11 products have been handed over to users for feedback.² All of these products have further iterations of development cycles to undergo before they are delivered to their Client State (CS) and Developing Member Country (DMC) users for ongoing use. As such, the impacts of the programme in terms of concrete IFI uptake are relatively limited in this early phase. However, there are noticeable improvements in awareness of EO Information at IFIs, and IFI teams are enthusiastic about the potential future value that EOIDs will bring to their work. Over the coming twelve months, the first GDA AID activities will begin to end, and it will be possible to assess the early impacts of these collaborations and EO Information more concretely. Over this same period, additional activities (AID and others) will be launched, creating a more comprehensive programmatic approach. It is anticipated that IFIs will increase their implementation of complementary activities that will benefit GDA and the wider Space for IDA cooperation framework.

Triangular cooperation

On the whole, stakeholders have reported that the triangular cooperation approach used in Space for IDA is well founded and brings value to the cooperation framework. However, across all elements of the triangular cooperation structure, the facilitator partner (IFI stakeholders) and pivotal partner (ESA and EO service sector) are more actively involved in Space for IDA than the beneficiary partner (developing country government counterparts³) at this time. This is mainly due to the fact that the GDA activities (which are led by ESA and the EO service sector, in direct partnership with the IFIs) are the most advanced activities in Space for IDA.

Therefore, recommendations represent adjustments to the triangular approach to increase the involvement of beneficiary partners in Space for IDA and increase understanding between the EO service sector and IFI stakeholders to improve the quality of collaborations. These recommendations include:

- » Investing on the IFI side of activities, including ensuring appropriate support roles for Space for IDA activities (e.g., M&E of complementary activities, technical/scientific support, knowledge sharing) and establishing clear roles and expectations for IFI stakeholders involved in Space for IDA. IFI teams are responsible for coordinating IFI activities, identification, and unlocking of complementary financing for capacity-building/skills transfer activities, providing

1 David Taverner, Nicki McGoh, and Elise Montano (Caribou Space), *ESA Global Development Assistance Status Review Year 1*, April 2023, <https://gda.esa.int/story/esa-global-development-assistance-status-review-year-1/>

2 At the time of writing (December 2022/January 2023), however, another 10+ were in the process of being handed over to IFI teams for a first round of feedback.

3 Referred to as "Client States" (CSs) and "developing member countries" (DMCs) by the WB and ADB, respectively.



technical feedback on EOIDs, and engaging CSs and DMCs. These roles are most effective when expectations are clearly articulated to establish ownership and expectations early in Space for IDA-related activities.

- » Developing procurement-related capacity within IFIs to commission new EOIDs, write terms of reference, establish appropriate budgets, and procure from the EO service sector in general. For example, trainings—provided by existing IFI teams like the Geospatial Operations Support Team (GOST) and ESA-led activities including GDA ABC (Advancing and Building EO Knowledge and Capacity)—on foundational procurement skills will ensure that complementary skills are built within IFIs to work with the EO service sector more independently and effectively in the future.
- » Bridging the gap between IFIs and the EO service sector by standardising language and outreach approaches so that both sides have fewer misunderstandings and use a less complex and more compatible language. In line with existing plans for the GDA CCC (Communicate-Connect-Cooperate) activity, establishing a common language and communicating the real impacts and benefits achieved by GDA AID activities clearly and directly to IFIs and CSs will build future collaboration.
- » Continuing to fund existing cross-cutting coordination and learning. ESA representatives and the GDA M&E activity have a clear positive impact on cooperation in Space for IDA. In addition to their core roles, they facilitate sharing of knowledge and good practices across stakeholders, a role that is unique and highly valued in Space for IDA.

Complementary activities

Under the umbrella of the Space for IDA cooperation framework, partner IFIs have committed to engaging in complementary activities to enhance the sustainable uptake, continued use, maintenance, and eventual development of EO Information. At this point in Space for IDA's implementation, complementary activities have not been implemented to the level initially expected. Progress has been slow, primarily due to the reliance on GDA AID activities progressing before most IFI projects were able to define clear actions. IFI projects have wanted to see initial results from the GDA AID developments before committing to complementary activities. In some cases, activities were delayed due to a lack of a clear internal pipeline to funding or a desire to see results before applying for funding from other IFI programmes and trust funds. Despite this, a small handful of complementary activities have started—predominantly at the ADB—and significant steps are underway to commit resources across approximately ten WB projects.

Over the coming two years it is expected that complementary activities will naturally increase. ESA and IFIs jointly revisiting the respective expectations around Space for IDA, broadening the remit of skills expected to be included in complementary activities (e.g., to include trainings on writing SOWs and TORs for EO consultancy), and ensuring that complementary activities follow good practices already identified will ensure that efforts are maximised and delivered to the highest possible quality.



Impact within IFIs and CSs

Space for IDA is expected to eventually lead to the mainstreaming of EO in development activities via greater use of EO Information amongst IFIs, coupled with active promotion of use cases, experiences, and other enabling conditions. At scale it is expected to have multiple long-term collective impacts on how development operations are planned and implemented and provide various benefits to IFIs and CSs/DMCs. While Space for IDA is still early in the impact pathway, EO Information has been slowly growing in awareness and acceptance at IFIs over the past five years. However, most growth has been attributed to the previous Earth Observation for Sustainable Development initiative (programmatic precursor to GDA) and gradual technology diffusion at IFIs, rather than yet being impacted by the Space for IDA cooperation framework. GDA AID activities need more time and more complementary activities need to be conducted for initial outcomes from those activities to materialise before mainstreaming of EO as a result of Space for IDA can be assessed. Despite this overall slow progress, IFIs have invested over €4.5 million in complementary resources to support GDA, and GDA AID consortia members have identified over €2 million of new opportunities for them to provide EO Information services to IFI clients. It is anticipated that IFIs will increase their implementation of complementary activities that will benefit GDA and the wider Space for IDA cooperation framework as time progresses and more EOIDS are delivered.

At this stage in the cooperation framework, activities have not progressed sufficiently to be able to assess impacts on IFI processes and operations, but the evaluation questions and methods are designed to ensure that it is possible to identify any of these impacts in the future.

Conclusions

After just over a full year of activities, Space for IDA has made significant achievements. In the coming two years all of the current GDA AID activities will begin to draw to a close, and it will be possible to begin to assess the early impacts of the initial collaborations and EO Information developments and provision more concretely. At the same time, additional activities (AID and others) will be launched, creating a more comprehensive programmatic approach. Finally, it is anticipated that IFIs will significantly increase their implementation of complementary activities that will benefit GDA and the wider Space for International Development Assistance cooperation framework.



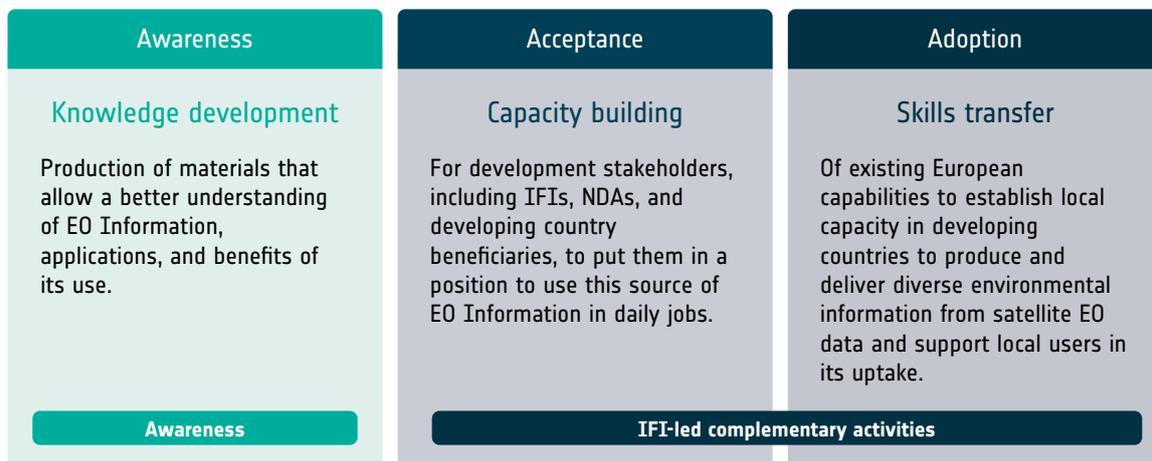
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Background: Space for IDA Review

The “Space for International Development Assistance” (Space for IDA) cooperation framework is implemented by ESA in partnership with the International Financial Institutions (IFIs) World Bank (WB) and Asian Development Bank (ADB).

The overarching objective of the Space for IDA initiative is to deliver improvements in efficiencies and impact to the operations of the various stakeholders in the development assistance community. The Space for IDA initiative is structured around three pillars:

FIGURE 2: Space for IDA Pillars



ESA carries out the EO knowledge development components through the Global Development Assistance (GDA) Programme—primarily through Agile EO Information Developments (AID) activities that provide EO Information in response to requirements identified by IFIs and their CS government counterparts in developing countries.

IFIs are responsible for the complementary activities of capacity building and skills transfer, using their own financial resources. To support this, the IFIs involved have established dedicated programmatic structures supporting partnership coordination: the WB Digital Earth Partnership⁴ and the ADB EO for Development and Digital Transformation initiative.⁵

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⁴ GFDRR, Digital Earth, www.gfdr.org/en/digitalearthpartnership

⁵ ADB, Digital Technology www.adb.org/what-we-do/sectors/dt/main



Methods

Caribou Space developed a measurement system to articulate, track, and understand Space for IDA's impact.⁶ See [Annex 1: Evaluation methodology](#). The core of this framework consists of a Theory of Change (see [Annex 2: GDA Theory of Change](#)), summarised in this [video](#), and aligned indicators for robust measurement. This enables tracking of progress towards intended impacts and learnings to optimise implementation of the programme.

This review builds on the findings from the *ESA Global Development Assistance Status Review Year 1*⁷ and complements the findings from that report with interviews with 17 key stakeholders from the WB, ADB, ESA, and the GDA consortia and a survey of all 34 members of GDA consortia.

Space for IDA is still in an early stage of implementation, which has been the primary limitation to this initial review. Space for IDA framework discussions started during 2020/21, following the formal establishment of GDA which was brought to life by ESA Member States at the Space19+ Ministerial Council in November 2019. Implementation of the first GDA AID activities began in late 2021—meaning this evaluation falls just past the first full year of activities. As of January 2023, seven GDA AID thematic areas have been launched, but there has been limited progress on establishing dedicated trust funds and mobilising existing development finance resources at IFIs, and consequently on financing and implementing complementary activities.

This Space for IDA Review will be updated biannually (with the next issue expected in early 2025) and published to the GDA website.⁸ In addition, there will be published GDA evaluations in early 2024 and 2025, which will analyse the specific achievements of the ESA-led GDA activities.

6 David Taverner, Nicki McGoh, and Elise Montano (Caribou Space), *ESA Global Development Assistance Status Review Year 1*, April 2023, <https://gda.esa.int/story/esa-global-development-assistance-status-review-year-1/>

7 David Taverner, Nicki McGoh, and Elise Montano (Caribou Space), *ESA Global Development Assistance Status Review Year 1*, April 2023, <https://gda.esa.int/story/esa-global-development-assistance-status-review-year-1/>

8 ESA, *Global Development Assistance*, <https://gda.esa.int/>



Navigation

- 1 GDA implementation.** Outlines the key processes and achievements of GDA to date. This section is a summary of key findings already shared in *ESA Global Development Assistance Status Review Year 1*.⁹ It also includes reflections on the programme's learnings to date and recommendations for implementation going forward.
- 2 Triangular cooperation.** Describes the main outcomes and impacts to date in relation to the triangular cooperation framework employed in Space for IDA. This includes reflections on the level of trust and ownership between different parties, complementary activities and coordination across activities, and the extent to which joint learning has happened. It focuses on recommendations for how to increase the scope of cooperation between GDA stakeholders and IFIs and improve the quality of the cooperation.
- 3 Complementary activities.** Details the progress to date on implementing complementary activities at each IFI, with a focus on the barriers to implementation to date and recommendations for how to increase the scale and scope of complementary activities in the future.
- 4 Impacts within IFIs and CSs.** Provides insight into the progress being made towards mainstreaming and ultimate impacts within IFIs and CSs. As the cooperation framework is still in early stages, this section has limited evidence of long-term collective impacts. Rather, it speaks to indications that EO is being planned for and provisioned within IFI projects and programmes.

⁹ David Taverner, Nicki McGoh, and Elise Montano (Caribou Space), *ESA Global Development Assistance Status Review Year 1*, April 2023, <https://gda.esa.int/story/esa-global-development-assistance-status-review-year-1/>



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Summary of GDA Programme to date

The GDA programme is the ESA-led branch of the Space for IDA cooperation framework. It was brought to life by ESA Member States at the Space19+ Ministerial Council in November 2019, with the first activities under the AID activity line beginning in September 2021.

As of January 2023, GDA has started work with seven GDA AID consortia, who have begun developing 36 distinct EOIDs for 32 IFI projects in 40 countries during the reporting period. An additional 30 products are in active discussions with IFI projects, with work expected to begin in 2023.

GDA has established its core processes effectively and efficiently in delivering the AID activities. The use of an agile methodology has helped meet user requirements, although at times asynchronous development cycles have made the activities more challenging to manage. The *ESA Global Development Assistance Status Review Year 1*,¹⁰ published in April 2023, recommended small tweaks to budgets and project management, IFI engagement and coordination, and the approach to hand-over costs and future uptake. These recommendations reflect the small challenges faced so far in engaging IFIs in a streamlined, user-friendly way and anticipated challenges in preparing IFIs to fund sustained EO Information services.

10 David Taverner, Nicki McGoh, and Elise Montano (Caribou Space), *ESA Global Development Assistance Status Review Year 1*, April 2023, <https://gda.esa.int/story/esa-global-development-assistance-status-review-year-1/>



Impacts of GDA

GDA is still in early stages of implementation. As such, the impacts of the programme in terms of IFI uptake are relatively limited at this point. However, there are noticeable improvements in awareness of EO Information at IFIs, and IFI teams are enthusiastic about the potential future value that EOIDs will bring to their work and for better serving CS counterparts.

Awareness: Existing levels of experience and expertise with EO specifically (and geospatial and remote sensing more generally) vary within IFIs and are lower within CSs; however, awareness has increased in recent years. Building on the extensive efforts under the EO4SD initiative (the programmatic GDA precursor), GDA has helped advance this process by engaging with IFI staff on the potential use cases of EO and the ability to customise solutions, clarifying and explaining jargon and technical knowledge, and demonstrating how EO can be applied to specific thematic areas. To further support changes in awareness at IFIs, the recommendations identified the need for more easy-to-understand promotional materials, short trainings, and promotional activities from AID consortia, IFI teams, and ESA teams that help communicate with non-technical audiences.

Value creation: At this point in GDA, technology development cycles are still in progress, and only 11 products have been handed over to users for feedback.¹¹ All of these products have further iterations of development cycles to undergo before they are delivered to their CS users for ongoing use. At this early stage, there was no evidence of specific value being realised for IFIs. However, staff remain optimistic and report that "*there is a lot of enthusiasm*" about the EO Information to be developed. In particular, the continuity and coverage offered by satellite EO have been highlighted as the value-creating features that are anticipated by IFIs and CSs.

After just over a full year of activities, GDA has made significant achievements. Over the coming twelve months, the first of the GDA AID activities will begin to end, and it will be possible to assess the early impacts of these collaborations and EO Information developments and provision more concretely. Over this same period, additional activities (AID and others) will be launched, creating a more comprehensive programmatic approach. It is anticipated that IFIs will increase their implementation of complementary activities that will benefit GDA and the wider Space for IDA cooperation framework.

¹¹ At the time of writing (December 2022/January 2023), however, another 10+ were in the process of being handed over to IFI teams for a first round of feedback.

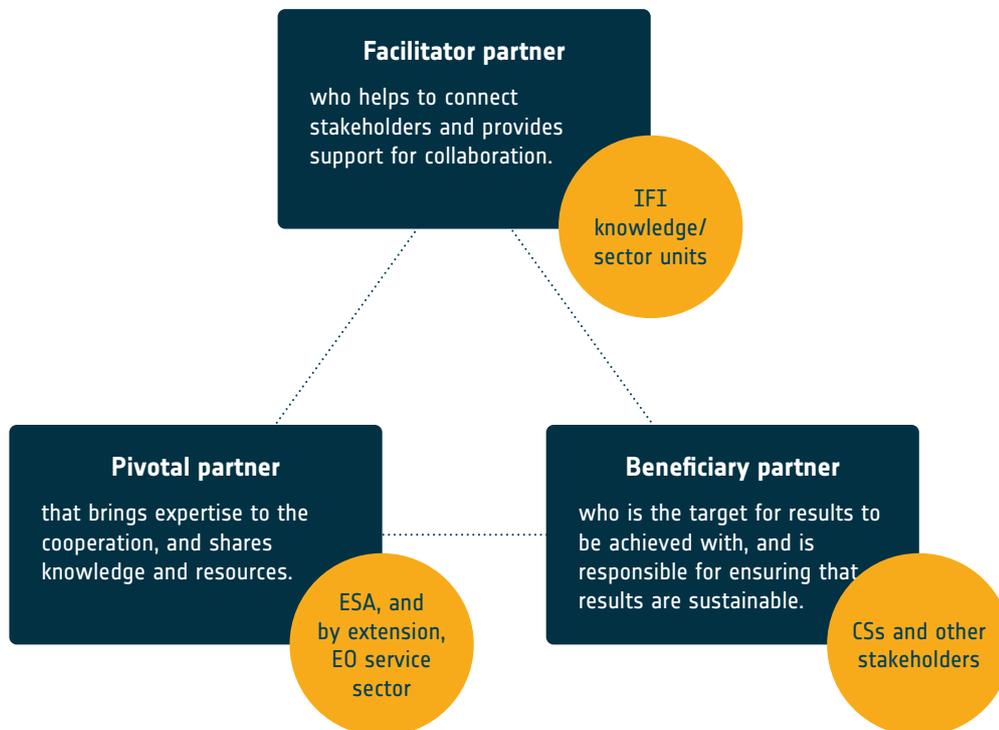
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Triangular cooperation

“Triangular cooperation is when countries, international organisations, civil society, private sector, private philanthropy and others work together to co-create flexible, cost-effective and innovative solutions for reaching the SDGs.”¹²

Triangular cooperation is a modality of development cooperation that is based on a combination of dynamic roles.¹³

FIGURE 3: Triangular Cooperation in Space for IDA



Triangular cooperation is founded on the principles that:

- » Trust and ownership are established through high-quality, equal partnerships that lead to stronger partnerships and more transformational results towards objectives.
- » Complementarity and coordination between partners amplify impacts.
- » Joint learning enables improvements and exchange of experiences after cooperation ends.
- » Increases in the scope of the collaboration will naturally result from a successful partnership.

¹² OECD, Triangular Cooperation: Why does it matter?, www.oecd.org/dac/dac-global-relations/_Triangular%20Booklet%20A5%20pages.pdf

¹³ In triangular cooperation, it is common for stakeholders to hold multiple roles during the life of a project. For example, while ESA is a pivotal partner in the set up and coordination of Space for IDA, ESA representatives to IFIs also act as facilitating partners for the collaboration. While IFI teams are most often facilitating partners, in some cases they may also be the beneficiary partner of a particular EOID.



This section outlines how the cooperation framework has been implemented to date in relation to four specific elements of the triangular cooperation framework: **trust and ownership, complementarity and coordination, joint learning, and enhancing scope**. It details progress to date, challenges encountered, and recommendations for improving the quality of cooperation going forward. The evaluation questions this section addresses are:

- 1 Trust and ownership.** To what extent has ownership been established or increased, and trust been established, between all partners/consortia involved in Space for IDA?
- 2 Promoting complementarity and coordination.** As a collective, have partners made use of their complementary strengths to enhance Space for IDA? What impact has the “exchange of personnel”¹⁴ had on the hosting institutions, the consortia (as relevant), and the main activities implemented under Space for IDA?
- 3 Joint learning.** Has a process for sharing learnings and experiences in implementation been developed? If so, has this been valued by all partners? Have learning exchanges been applied by any of the partners?
- 4 Enhancing scope.** To what extent and to what effect have partners mobilised additional resources, networks, and/or institutions to enhance the volume, scope, and sustainability of Space for IDA?

Key findings

Across all elements of the triangular cooperation, the facilitator partner (IFI stakeholders) and pivotal partner (ESA and EO service sector) are more actively involved in Space for IDA than the beneficiary partner¹⁵ (developing country government counterparts) at this time. This is mainly due to the fact that the GDA activities (which are led by ESA and the EO service sector, in direct partnership with the IFIs) are the most advanced activities.

When it comes to **trust and ownership**, EO companies are playing a lead role in driving EOIDs, with mixed—but generally positive—experiences in engaging IFI teams. However, these experiences are perceived to be improving over time. Demonstrating and communicating success from all elements of the Space for IDA collaboration framework will be key to building further trust and encouraging IFIs and CSs to become more engaged in the future.

On the whole, stakeholders have reported that the triangular cooperation approach is well founded, and that each party has a distinct added value that they should be bringing to the process. However, the role of CSs in the development process as the users/beneficiaries of the EO products to date is less obvious. ESA representatives¹⁶ and IFI technical experts in particular have a pivotal role in facilitating engagements that should not be underestimated. For IFIs, however, there needs to be more clarity around the roles of project representatives—including Task Team Leaders (TTLs), technical or thematic experts, and project staff—and the unique added value that those roles can bring to Space for IDA.

¹⁴ Including, but not limited to, ESA staff secondments to the WB and ADB, staff exchanges with ESRIN, and other industry bodies.

¹⁵ Referred to as “Client States” (CSs) and “developing member countries” (DMCs) by the WB and ADB, respectively.

¹⁶ GDA has a team structure that includes ESA staff that have been seconded full time to both the WB and ADB. These ‘ESA representatives’ have access to WB and ADB teams, systems and processes and are based at their headquarters.



Although there have not yet been many formal opportunities for **joint learning**, stakeholders are optimistic about the potential to collaborate more deeply in the future. There is a desire for more collaboration within GDA activities, from GDA to IFIs, across IFI programmes, and (to a lesser extent) across ESA programmes—indicating a high level of interest in the different layers of collaboration that exist within Space for IDA. Additionally, informal learning and lesson sharing have already begun, facilitated by cross-cutting roles like the GDA M&E contract and ESA representatives.

Finally, the **scope** of the GDA programme has increased (in value of IFI complementary financing committed and number of ESA Member States subscribed), and there is deepening collaboration between ESA and the IFIs (for example, through the establishment of the Digital Earth Partnership at the WB and EO for Development and Digital Transformation initiative at ADB, and the signing of new five-year cooperation arrangements between ESA and these two IFIs).

A number of recommendations have been made to address the challenges to triangular cooperation. These include actions for each of the GDA activities, stakeholders from ESA, and IFIs to improve each element of triangular cooperation and bring in greater representation from CSs.

Trust and ownership

Trust is an important element in Space for IDA collaborations. When partners are able to build trust in each other, each party can take ownership of their elements of the process and independently carry out their responsibilities. This in turn influences engagement with the cooperation and willingness to adopt EO Information in the future. In general, there is a positive perception that stakeholders are taking responsibility for their areas of engagement in the GDA AID-developed EOIDs. In particular, ESA and EO service sector companies are playing a driving role in moving the activity forwards. IFI and CS partners, however, have been at times less active in their roles, in part because the complementary activities in which they are expected to take a greater share of ownership have yet to be implemented to the same scale.

The “pivotal partner” is driving EO Information development.

All sides of the cooperation have reported positively about the level of trust and joint ownership during the development of EOIDs. While this varies somewhat across individuals and consortia, the perception is that teams are responsive and qualified, and each brings unique added value to the triangular relationship. In particular, companies from the EO service sector are playing a clear role in leading the EO Information development process, as is expected. IFIs and CSs “*rely on their suggestions on what is possible and what is doable*” (Maria Pia Ancora, ADB).

However, companies from the EO service sector have reported feeling excluded from the process of handing over the products to users and building capacity to adopt the products into operational use, as activities like capacity building are being designed and contracted without explicit involvement from the GDA AID activities. Several companies have also reported they do not feel like an essential part of the cooperation once the product development stage is over. This is mainly attributed to the fact that complementary activities are required to go to open tender processes (a rule for IFI procurements). Despite upfront communication of IFI procurement rules and boundary conditions by ESA, EO service sector companies often expect that they should have a more direct route to follow-on activities and contracts.



The “facilitator partner” plays a key role, but experiences are mixed.

Initially, connections between IFI teams and GDA AID consortia were slow to kick off, and the first GDA AID activities launched faced additional challenges in initiating work. However, with over a year of active collaboration now completed, this challenge is becoming less present for new activities. GDA AID consortia still report a mixed experience with (primarily) IFI teams in terms of their willingness to actively engage in developing EOIDs via an integrative co-design process.

Many have reported that IFI and CS stakeholders have become more engaged and have taken a more active role in presenting ideas, collecting requirements, sharing feedback, and engaging with the cooperation. However, others have reported that they continue to face barriers in convincing IFI and CS stakeholders to engage and participate in the process actively. There are no clear trends yet on what causes the different experiences. It is believed most likely to be the differences in individuals, workloads, and levels of interest/expertise with EO Information, and the technology and terminology involved. It has also been suggested that the lack of involvement of IFI senior leadership has made it more challenging for project teams to prioritise engaging in Space for IDA (as they lack clear signals and incentives to encourage innovation) and integrate EO Information into their working practices.

The “beneficiary partner” is not equally active in most elements of the cooperation.

Somewhat expected due to the institutional partnership structure of Space for IDA, CSs appear to be much less involved in the EO Information development process. This is due to the process of having GDA AID activities usually implemented via IFI counterparts, who act as a filter between the EO service sector and beneficiaries. Very few GDA AID consortia have reported having direct contact with CS counterparts, despite them being the beneficiary partner in the cooperation framework. In most cases this is because IFI partners are taking on the role of defining needs and validating EOIDs before they are shared or promoted to CSs for use and future integration into loans. There is, however, a clear risk here that CSs become detached from the entire process, that products are designed without their express needs in mind, that complementary activities are detached from GDA, and that the compounding effects of these different interventions are unmet.

Complementarity and coordination

The unique added value of the triangular cooperation approach is that each partner can make use of their complementary strengths to achieve results together that would not have been possible as individual entities. Overwhelmingly, there is consensus that in Space for IDA:

“The roles are set up the right way to deliver and to maximise our impact. However, how this plays out in practice also depends a lot on the nature of the interactions between technical officers, the consortium, and whoever we’re working with on the side of the Bank.”

Alex Chunet, WB



ESA representatives play a crucial role in facilitating coordination among different elements of the triangular relationship.

While each element of the triangular relationship brings its own added value to the Space for IDA cooperation framework, the role of the ESA representatives at the WB and ADB was highlighted as a particularly important element that enabled engagement among stakeholders. ESA representatives are familiar with the technical knowledge and language of the EO service sector, but they are also deeply ingrained in the processes, projects, and language of the IFIs.

"Of course [ESA representatives] know a lot about Earth Observation, and they know much more than us about the different processes, the procedures that the different Banks have to follow. And it's always very well received—the information on, and the feedback on, the different things we have to do in the approach. I mean, it's something that I really appreciate having the support from [the ESA representative]. It's great."

Carlos Domenech Garcia, GMV

ESA representatives have knowledge of and access to IFI staff and the full landscape of IFI operations in front of them to assist the GDA side activities. They are particularly useful in helping GDA AIDs to connect to the "right level" of IFI staff—be it project representatives (e.g., TTLs) who make decisions, or project teams who are using and implementing the EOIDs.

IFI stakeholders have a unique role as technical subject matter experts.

IFI staff have a pivotal role in Space for IDA as both technical (subject matter) experts that can interact with the EO service sector, and the conduit that works between industry and CS stakeholders. Where some collaborations have reported at times there being a risk of misunderstanding between the EO service sector and IFI partners, as they can speak very different languages and have little standardisation of terminology between the two industries, technical (scientific) experts from IFIs in particular have been identified as bringing valuable insights into the process of mainstreaming EO Information into their activities. Technical experts are particularly valued because *"they sort of speak the same language"* (Gregor Herda, GAF) as the GDA AID teams and are able to:

"... inject information and also try to convince the users about the benefits. Because otherwise, if in some of the cases we work with economists, then okay, we convince economists that this is great for them and for the stakeholders, but then the economist is not able to transmit these ideas to the clients."

Carlos Domenech Garcia, GMV

While GDA AID teams value the contributions from IFI stakeholders, they have also reported that it is sometimes difficult to engage them (especially at the start of collaborations). However, project representatives (e.g., TTLs) at the WB and ADB have also reported wanting to have more contact with and engagement in the collaboration. In particular, at the WB there is a desire from some subject matter experts to be more involved in defining the methodologies of how various EOIDs are being developed so that they can understand and contribute to the final result.



"So far I don't feel that my own on the ground knowledge or previous experience with this [topic] has been leveraged in any kind of real or, or critical way. And that's been a little bit surprising that there hasn't been more conversation with me. It's been more like me sort of setting out, this is what I think the broad research question is, these are the individual parts that I think that we could take on and then they've just taken it and run with it, which is great. I mean, you're never going to hold anybody back, but again, I kind of would've expected a little bit more frequent collaboration in terms of how we approach the question."

Anonymous interviewee, WB

This mismatch in expectations has not become a significant problem in Space for IDA, but it is a risk for future collaboration to ensure that an appropriate balance is struck between the GDA AID consortia and IFI stakeholders in terms of level of engagement. Where the relationship has worked most effectively is where TTLs (and their equivalents at ADB) have a clear and active role in the process, for example, demonstrating tools to end users (in IFIs and CSs) and collecting informal feedback on the EOID creation process.

Consortia approach to GDA adds to complementary skills.

The consortia approach to developing EOIDs has also been valued by all stakeholders involved in Space for IDA.

"The positives [of working with the consortium] are that we can take a very difficult challenge, we can split it up into some component parts, farm that out to different agencies that have different comparative advantages and then they can make a lot of progress very, very quickly. I've been very impressed with how much progress has been able to make in such a short amount of time."

Anonymous interviewee, WB

Allowing IFIs to engage via a consortium brings them a breadth of expertise that would otherwise not be available. IFI stakeholders have praised the advantages of this process, the high quality of technical solutions, and the speed at which GDA AID consortia have been able to generate EOIDs for them to test.

The complementary added value of CSs in the triangular relationship has not yet been realised.

Beneficiary partners—mainly in the form of CSs—are expected to bring user needs and demands to the process, link outcomes into national development plans, and ensure sustainability. However, IFIs are still playing a large role in coordinating the user requirements and EOID validation process, making it difficult to see the unique complementary strengths that CSs bring. Where projects have had some success in engaging with developing country stakeholders, it has often not been easy:

"We actually have now some more engagement with the city's authorities...But not much...it's passive and it's extremely difficult to get city authorities engaged through the IFI counterparts."

Sharon Gomez, GAF

Until CSs are more engaged in receiving, testing, and integrating EO products into their operations and conducting complementary activities, the full potential added value of their contribution to Space for IDA will remain under-realised.



Joint learning

Joint learning is highly valued in the triangular approach as it emphasises the importance of partners sharing knowledge, learning jointly, and continuing to exchange experiences even after the cooperation ends.

Opportunities for joint learning are still nascent but stakeholders are optimistic for the future.

Unsurprisingly, there have been relatively few opportunities for stakeholders to engage in formal joint learning to date in the implementation of the Space for IDA cooperation framework. This is largely due to two reasons. First, it is still relatively early in the cooperation process; many stakeholders have reported needing to engage further and have more results to share before being ready to engage in learning and knowledge-sharing activities. Second, the GDA Impact Communication (GDA CCC) and GDA Knowledge Hub (ABC) (both to be contracted in 2023) will play lead roles in creating communications material based on learning and provide a central repository for sharing learning from GDA. This will be essential for helping to scale joint learning activities and reach wider audiences.

To date, most of the knowledge-sharing activities between GDA AID activities and IFIs have been more focused on GDA AID ongoing activities—for example, the use of regular progress meetings to update IFI stakeholders directly involved in GDA. One GDA AID activity reported having been supported by the WB to speak at the GEO Blue Planet Symposium in Accra.¹⁷ In addition, ongoing work by the GDA M&E activity supports joint learning by:

- » Identifying and sharing good practices between GDA AIDs as/when they emerge via quarterly review meetings.
- » Creating standardised terminology around EOIDs, complementary activities, and mainstreaming that can be used by all partners.
- » Conducting evaluations and sharing lessons and good practices through formal publications (forthcoming).

Achievements made during the EO4SD initiative (GDA's programmatic precursor) could be better utilised (for their relevant thematic domains) to showcase results and share expertise more broadly while current GDA AID activities are still under development.

Informally, some EO service sector companies have shared learnings internally. Eight of 38 companies are involved in more than one GDA activity, and several of these have reported sharing internal learning about GDA processes and requirements, particularly around onboarding and kickoff of new activities. While industry members have shared some learning informally (e.g., when meeting at conferences or events), stakeholders have reported that *"one thing that I miss a bit maybe is on the interactions between the different clusters because we have little idea about the activities the other clusters are doing"* (Carlos Domenech Garcia, GMV). Future learning events such as a planned "GDA industry co-location meeting" hosted by ESA are anticipated to help advance these activities.

17 GEO Blue Planet Symposium, <https://symposium.geoblueplanet.org/>



IFI stakeholders are likewise keen to share learning that will influence future collaborations between the EO service sector and IFIs:

"Maybe by doing this, GDA and us can decide that okay, you know, for this kind of stuff this might not be the most useful tool to be used... I think we will be contributing something to the learning of the cooperative [framework] as well as for our own [purposes] as well."

Anonymous interviewee, WB

Likewise, ESA representatives are interested in how joint learning can be used to share knowledge internally and improve ESA programmes more generally:

"While mostly working for ESA's climate programme [Climate Change Initiative], I wanted to be involved in [a] different programme so I could have a broader overview of ESA's activity and make the different projects talk together... Compared to ESA's climate programme, GDA addresses a very specific external user group [IFIs] and aims at transferring EO services systematically into development finance. GDA can serve as a broad platform/vehicle to promote the data developed under ESA's climate programme and expand to different user communities. It can also provide useful feedback to our consortium developing climate data records [CDRs]."

Clement Albergel, ESA

Enhancing scope

The final element of the triangular cooperation framework that is relevant to the Space for IDA cooperation framework is the potential for partners to mobilise additional resources to enhance the volume, scope, and sustainability of their existing collaborations. In Space for IDA this is evaluated through both new complementary financing mobilised and deepening of the relations between different stakeholders, primarily with a focus on ESA, EO service sector companies, and CSs.

The scope and funding for the GDA programme has increased.

ESA Member State funding for the GDA programme was increased in 2022. A new participating state joined the programme (France) and two of the initial participating states (Italy and Austria) increased their subscription, bringing the total programme envelope to €35 million from 14 states.¹⁸ This increase in GDA funding will allow for more GDA-funded activities and the inclusion of more EO service companies in IFI projects.

There is growing collaboration between ESA and IFIs.

ESA and the core GDA partner IFIs (WB and ADB) have recently signed new cooperation arrangements supporting the implementation of Space for IDA. These arrangements detail areas and forms of cooperation, but not specific activities to be implemented by stakeholders. These arrangements build on the previously signed five-year memoranda of intent and signify the intent between parties to cooperate, to improve information exchange and sharing experiences on applying and mainstreaming

¹⁸ ESA, France joins the GDA programme, 25 November 2022, <https://gda.esa.int/2022/11/france-joins-the-gda-programme/#:~:text=We%20are%20very%20happy%20to,22%20and%2023%20November%202022>



EO technologies into IFIs, and to foster best practices in developing countries. This is a positive indication of advancing cooperation and commitment to grow the scope and volume of future aligned activities.

Further, each IFI has taken steps to embed the ESA representatives more deeply in their work. The WB has established the Digital Earth Partnership (DEP), “*providing demand driven data services for spatial monitoring, decision support, and risk management activities prompted by client governments and their beneficiaries: activities that are locally appropriate, affordable, actionable, scalable, and sustainable.*”¹⁹ In 2023, it is anticipated that an activity pipeline for the DEP can be implemented, scaling the DEP partnership with ESA and supporting further complementary activities for Space for IDA. At the ADB, the (former) ESA representative has been fully integrated into an ADB staff position responsible for supporting ADB to design and implement projects using satellite EO Information. These steps are indicative of both IFIs’ willingness to invest in EO Information and the Space for IDA cooperation framework.

Blockers of triangular cooperation

Four key barriers to establishing greater trust and ownership, complementarity, joint learning, and scope among all parties of the Space for IDA cooperation framework have been identified.

- » **The absence of a dedicated trust fund (TF):** Space for IDA was established with the intention of creating dedicated TFs at each IFI to support the cooperation. A dedicated TF—in particular at the WB, as TFs are an integral part of the WB approach²⁰—was anticipated as a key element of the cooperation framework and an important tangible symbol of co-ownership between ESA and the IFIs. At the WB the Digital Earth Partnership (DEP) programme has been established, with a clear mandate and seed budget under the Global Facility for Disaster Reduction and Recovery (GFDRR) umbrella TF, which has a role to support the Space for IDA cooperation framework. While this is seen as a step in the right direction, the dedicated TF planned at the WB has been delayed waiting for a lead donor, leaving WB projects without a *dedicated* TF to draw on to support complementary activities. Difficulty in securing a development partner as initial donor for a dedicated EO TF reflects delays from both bureaucratic processes and competing priorities at the WB. Having a dedicated TF for Space for IDA at the WB would not only enable complementary activities; it would also give greater visibility to activities, support internal promotion of the cooperation at the IFI, build interest in (and ownership of) activities, increase space for joint learning, and ultimately enhance the scope of the cooperation framework.
- » **IFI willingness to pay:** Through the GDA Programme, EOIDs are provided to IFI projects and programmes “in-kind” (as funded by ESA) and perceived free of charge. While IFIs are expected to make their own contributions to the cooperation via complementary activities, those have been slow to start. In the interim, this creates a risk that IFI projects are disconnected from the costs associated with delivering EO Information-related activities. Through the GDA Programme, ESA directly contracts EO service sector companies. While this speeds up the process of getting EO Information into IFI projects, since capacity and knowledge to procure EO services are relatively low in IFI task teams, it runs the risk that IFI projects are not gaining necessary

19 World Bank, Digital Earth: Harnessing the new generation of Earth observation services for international development, <https://www.gfdrr.org/en/digitalearthpartnership>

20 In contrast, Space for IDA at ADB operates more successfully by attracting funding via technical assistance from larger funds. There is (currently) less expectation placed on ADB to establish a TF as a mechanism for supporting Space for IDA.



knowledge and expertise in the process of procuring EO Information services. This undermines the level of ownership that IFIs have in the overall procurement process, and the level of trust that EO services companies have in IFIs to sustainably mainstream services in the future.

- » **IFI and CS willingness and ability to share data:** While EO service companies are responsible for producing the products and developments that solve specific local challenges faced in CSs, they are often reliant on existing datasets owned by other stakeholders. For example, this may include in-situ data, aerial surveys, or previous mapping exercises. However, there have been times that CSs and IFIs that hold the data are slow or unable (due to previous licensing agreements) to share that data with the GDA AID consortia. These challenges compromise the level of trust between stakeholders, as it can be perceived as an unwillingness or inability to cooperate on basic information, and undermine all elements of the cooperation framework.
- » **Balancing open source and proprietary products:** IFIs have a strong preference for solutions that are free and open source to enable upscaling, replication, and adaptation over time. The EO service sector, however, is far more accustomed to creating proprietary solutions that are provided to clients via (paid for) licences. These at times conflicting interests have the potential to impede the collaboration framework, as stakeholders see themselves in conflict over the solution. IFIs are perceived to be much more willing to align complementary resources for capacity building and skills transfer to support the use of open source systems, rather than to complement proprietary systems for which they also need to pay large licensing fees.

Recommendations to improve triangular cooperation

Recommendations for GDA AID consortia

Work with IFI partners to define clear roles for senior staff and technical staff to build engagement.

While it depends significantly on the individuals and teams involved, GDA and complementary activities improve in quality when IFI staff have clear and defined roles describing how they contribute to and engage with Space for IDA activities. As most IFI projects enter Space for IDA via GDA AID, consortia should work with contact points to define clear roles (e.g., coordinating IFI engagement, gathering stakeholder feedback) during the process of developing EOIDs to help establish ownership and engagement early in the process. This includes engaging IFI staff with specific technical expertise to ensure their unique value feeds in, as well as working with task team leaders, global leads, sector specialists, etc.

Recommendations for GDA ABC

Broaden the remit of basic skills in GDA ABC to include procurement processes.

IFIs would benefit from additional knowledge on how to procure EO Information support (for capacity building, skills transfer, and creation of new/adapted EOIDs). This includes guidance on writing terms of references, establishing appropriate budgets, and procuring services from the EO Service Sector. At the WB, this work should be carried out in alignment with GOST to ensure complementarity and learning for other IFIs to follow suit.



Recommendations for GDA CCC

Ensure that the GDA CCC activity communicates success and directly engages IFIs and CSs.

While there is consensus that IFIs do not need additional use cases on specific EOIDs to prove the value of EO Information, more communication about the successes of projects—the impacts on IFI projects of CSs, and the connections made in complementary activities—aimed at IFI and CS audiences will help to build interest and engagement in the future.

Create guidelines on standardised language and outreach approaches for EO service companies.

There can be a language gap between IFIs and the EO industry. Both sides would benefit from more standardisation and guidance on how to speak with each other and clarity on key terminology used by both sides. GDA CCC can provide guidelines on communications that support both sides to have fewer misunderstandings and use a less complex, more compatible language.

Recommendations for ESA GDA programme management

Continue to embed ESA representatives at target IFIs.

ESA representatives have been an overwhelmingly positive factor for cooperation in Space for IDA. Their role is seen to be crucial not only to GDA activities' success, but also to the wider collaboration. ESA should continue to fund these positions at focal IFIs and consider extending representatives to other IFIs that may become involved in Space for IDA in the future.

Encourage joint learning across GDA consortia.

There is an appetite among GDA AID consortia for greater learning and knowledge sharing across thematic activities. The GDA Programme management team should consider low-effort activities that can bring EO service sector companies together to discuss the process of engaging in GDA (and Space for IDA more generally). For example, through the GDA M&E activity that is already generating learning and best practices across GDA AID activities, common learnings can be shared out to each activity in short evaluation summaries or by Caribou Space at quarterly GDA AID meetings.

Consider a programme approach to balancing requests for open source EO Information solutions with proprietary solutions.

IFI requests for open source solutions are not expected to diminish in the future. ESA should consider how it could take a more active role in emphasising open source methods and processes in GDA AID activities. This could be done for example by requiring certain elements of EOIDs to be delivered using open source. This may have the effect of reducing barriers and friction with IFI projects asking for open source solutions and increase their willingness to fund complementary activities that support IFIs to learn how to use, update, and maintain EOIDs.

Recommendations for ESA representatives

As intermediaries between IFIs and ESA, representatives can support discussions and (informal) agreements on data sharing early on.

ESA representatives have a unique role that can be used to balance interests of both IFI and GDA AID stakeholders. As such, they can help establish data-sharing agreements between IFIs (or CSs) and the EO service sector that enable GDA AID activities to happen more smoothly, and thus complementary activities to have less friction. This has occurred in some cases (e.g., GDA Fragility), and good practice for how to facilitate this should be documented and learned from.



Recommendations for IFI stakeholders

Develop opportunities for staff exchange and secondments between ESA and the IFIs to foster co-ownership and trust.

ESA has seconded representatives to the WB and ADB, allowing for a deeper organisational understanding of the IFIs and ability to coordinate and influence activities from within. Reciprocal exchanges of IFI staff to ESA could help build institutional understanding, foster co-ownership, and grow trust in a similar way. This was already implemented between 2019 and 2022 with a senior WB staff (focused on disaster risk finance) sent on assignment to ESA. Revisiting and broadening this model would be highly beneficial, and exchanges structured along thematic lines could help further facilitate AID activities and TOs as complementary activities.

Conduct monitoring and evaluation of IFI-led activities and share results with GDA M&E contractor.

As IFIs (and CSs) begin to implement more complementary activities, there is an expectation that outputs and outcomes from these activities will be gathered and recorded by the IFI teams coordinating the activities. This includes quantitative results, like the number of people trained and amounts of money spent on activities, and qualitative information on the nature of complementary activities (topics, types of stakeholders involved, EO technology in use). Gathering and sharing these results with the GDA M&E contractor (Caribou Space) will allow for a more complete picture of both IFI activities and CS involvement in the Space for IDA cooperation framework.

Identify technical staff to support Space for IDA where possible.

While senior management staff are important to facilitate the collaboration between IFIs, ESA, and CSs, IFI staff with specific technical expertise have an important practical role to play in translating and embedding concepts in IFI project teams. Their expertise is invaluable to the mainstreaming process and ensuring that IFI activities don't end after GDA engagement, but that there are relevant people and teams around which to focus complementary activities. IFI teams should identify wherever possible technical (thematic or sector-specific) staff to engage in Space for IDA and provide technical support to collaborative activities. This often comes down to ensuring IFI teams are involved as much as possible so that the value of including technical staff is recognised and realised.

Fund and support knowledge-sharing activities via DEP (WB) and the EO for Development and Digital Transformation initiative (ADB).

IFI teams should consider directly funding their own knowledge-sharing activities that promote joint learning between IFI teams and with CSs. IFIs already host and participate in a significant number of global, regional, and thematic fora for knowledge sharing and can identify suitable opportunities for GDA AID activities, IFI project teams engaging in Space for IDA, and potentially CSs to engage in joint learning.

4

Complementary activities

Under the umbrella of the Space for IDA cooperation framework, partner IFIs have committed to engaging in complementary activities to enhance the sustainable uptake, continued use, maintenance, and eventual development of EO Information.

Capacity building is anticipated to be the predominant complementary activity conducted by the IFIs. Some projects and programmes that receive EOIDs through GDA AID activities are also expected to establish **skills transfer** initiatives that support the growth of local capacity in CSs to produce and maintain diverse types of EO Information. The final complementary activity expected of IFIs is anticipated to be projects investing their own resources in the **development of EO products** at scale to serve their project and programme needs.

The target stakeholders for complementary activities are IFIs and CS representatives looking to enhance their own skills to use EO Information, capabilities to provide EO Information, and ability to define new needs and use cases.

This section outlines the extent to which capacity building, skills transfer, and EO development activities (led by IFIs) have been implemented, and provides learnings and recommendations on how to increase the scope and impact of complementary activities in the future. The evaluation questions this section addresses are:

- 1 To what extent have the activities implemented under the Space for IDA cooperation framework improved EO acceptance through capacity building?
- 2 To what extent has the cooperation framework increased adoption via skills transfer of existing European capabilities to CSs to produce and deliver EO Information themselves?
- 3 What are some of the successes and challenges around complementary activities?

At this stage, after the first full year of GDA activities, the implementation of complementary activities has been lower than was originally anticipated by most stakeholders, for reasons explored below. As a result, there is limited evidence to answer additional key evaluation questions about how various complementary activities have enabled target stakeholders to enhance their own skills and capabilities, let alone uptake and use/production of EO Information.



Key findings

Complementary activities have not been implemented to the level initially expected at this point in the implementation of Space for IDA. Progress has been slow, primarily due to the reliance on GDA AID activities progressing before most IFIs projects could define clear actions. IFI projects have wanted to see initial results from the GDA AID developments before committing to complementary activities, and they have sometimes relied on TFs as a simplified internal pipeline to funding, or chosen to wait to see results before they apply for funding from other IFI programmes and TFs. Despite this, a small handful of complementary activities have started—predominantly at the ADB—and significant steps are underway to commit resources across approximately ten WB projects.

This section concludes by discussing recommendations for ESA, IFIs, and the GDA M&E Contractor (Caribou Space) to speed up and enhance the quality of complementary activities implemented. Over the coming two years it is expected that complementary activities will naturally increase. Jointly revisiting the expectations held by both IFIs and ESA around Space for IDA, broadening the remit of skills expected to be included in complementary activities (for example, to include trainings on writing SOWs and TORs for EO consultancy), and ensuring that complementary activities follow good practices already identified will ensure that efforts are maximised and delivered to the highest possible quality.

Implementation progress

From the outset of the Space for IDA cooperation framework, there was an expectation that, as GDA AID activities were agreed, IFI and ESA stakeholders would come together to identify complementary activities funded by IFIs that would benefit from the GDA AID activities and enhance the work to be done. This was a notable shift from the precursor EO4SD initiative, wherein capacity-building activities were included within the remit of activities that ESA had funded. There was an initial expectation that these activities would happen in parallel with GDA AID activities. During the setup of the cooperation framework, these activities were agreed on by senior management of both organisations at a strategic level.

All three activities (capacity building, skills transfer, and development of EO products) can be implemented independently of GDA AID activities. Capacity-building activities have typically been conceived of as either focusing on generic training on remote sensing—independent from GDA AID—or specific activities aimed at using the unique EOIDs created by the GDA AID activities. Skills transfer is expected to involve a deeper level of engagement with stakeholders. Finally, EO developments can take the form of either activities to scale up EO Information created by GDA AID activities or funding to create entirely new products and developments based on new IFI or CS user needs.

For GDA AID activities nearing completion, many of the IFI projects involved have begun to create plans for obtaining aligned funding to scale up EOIDs or support complementary activities. Stakeholders have reported that this process is more straightforward at ADB—likely due to its smaller size and more direct route to funding via “technical assistance” funds. As a result, there are more reports of complementary activities happening with ADB projects, mainly from specialist ADB teams to DMC representatives and ADB project staff. There have been at least three concrete complementary activities delivered:

- » A skills-transfer activity aimed at staff operating in or related to fragile and conflict-affected situations (FCAS) or small island developing states (SIDS) in various ADB departments. This has included two training sessions, a webinar dedicated to EO, and hosting an EO booth at ADB’s Innovation Fair. Through this activity, ADB has built skills with over 150 individuals.



- » An additional consultant (from SISTEMA, a member of the GDA AID Climate Resilience consortium) was hired for the same TA to deliver an EO development for Afghanistan.
- » A consultant from GeoSphere Austria (formerly ZAMG, a member of the GDA AID Disaster Resilience consortium) was contracted to do further EO development for the Melamchi Water supply project in Nepal.

In contrast, at the WB progress has been slower due to the significantly larger volume of activities with the WB. However, an estimated one-third of the 24 WB projects currently engaged have begun making concrete plans for complementary activities. In Q4 2022 the ESA representative to the WB began re-engaging TTLs involved in the first GDA AID activities launched to create plans for complementary activities. Not all of these activities have been able to identify (and secure) potential funding sources from within the WB, and for many the available amounts are still not clear. But ESA representatives are optimistic about the progress that has been made. For example, the ESA-supported South Sudan Climate Resilient Flood Management Project has leveraged US\$600,000 from the GFDRR trust fund to do capacity building nationally. This activity will have a component dedicated to flood risk mapping, building capacity on the EOIDs provided by the Climate Resilience GDA AID activity. While the procurement process will be via open tender, industry members of the Climate Resilience consortium are expected to tender, which would help further build on the link between GDA and complementary activities.

In particular, opportunities to include capacity building in existing workshops and training programmes and increased use of virtual training (in the wake of COVID-19) are being explored by IFI teams.

Barriers to implementation

Most complementary activities are only being planned after EO Information is delivered.

Most IFI stakeholders were generally aware of the requirement to implement complementary activities, despite little progress having been made. While ESA initially expected complementary activities to be implemented in parallel to GDA AID activities, in practice IFI counterparts—especially at the WB—have shown a distinct preference to receive EOIDs first, and then plan for appropriate capacity building, skills transfer, or EO development (to scale up products).

“ADB has been funding capacity building according to plans, when solutions are sufficiently mature, and the CSs are in the position to receive the training and tools. This rarely happens before the third iteration cycle—when the system is working, when the application is working, when we have something really solid—and it takes time. Overall the impact of capacity building downstream from GDA creates good conditions for long-term sustainability. In selected countries such as Indonesia, Cambodia, and Vietnam, the ADB-funded capacity building is scheduled to be more in sync with [later GDA AID procurements like] GDA Marine and Agriculture.”

Paolo Manunta, ADB



The preference for delaying capacity building boils down to three interrelated constraints: funding, relationships, and co-creation. Where IFI projects have funding from within their own pipeline of activities, they need to build a relationship of trust with the GDA AID activities to be convinced that they should spend project resources on complementary activities. This appears to happen at the project level for each AID use case, despite the existing trusted relationship between ESA and the IFIs at an institutional level. There is a strong perception that IFI and CS counterparts need to see at least the first iteration of EOIDs to understand not only how it applies to their project, but also what additional activities they could do to complement it. Changing the relationship between the AID activities and IFI projects to be less of a consultancy model and more of a co-creation relationship would likely shift this dynamic considerably.

Lack of a dedicated trust fund at the World Bank remains an obstacle.

TFs are an important tool used at the WB to mobilise and direct resources towards strategic priorities (like Space for IDA). To some disappointment at ESA, there has not yet been a dedicated TF set up at the WB to support complementary activities. While the prioritisation of resources at the WB—especially in light of COVID-19—has slowed down progress, it was expected that there would be a dedicated TF by the end of 2022, which WB projects could turn to for some of their funding, while continuing to use project funding, technical assistance, and larger funds to support wider financing. In the absence of this, WB projects are looking to other TFs (e.g., GFDRR, PROBLUE) and programmes (e.g., West Africa Coastal Areas Management (WACA), Disaster Risk Financing and Insurance (DRFI), Nature Based Solutions (NBS)) to mobilise resources for aligned activities, which can be a more time-consuming and difficult process. In some cases, these programmes have agreed to allocate millions of dollars to complementary activities at the outset of Space for IDA, but getting that money to start to flow to actual projects engaged in GDA and clearly defined complementary activities has been difficult. Furthermore, it adds to the workload of already busy TTLs to engage TFs and programmes and write grant proposals (albeit at times supported by the ESA representative).

While in the long run this is the likely path for projects to fund EO-related activities at the WB, in the five-year time horizon of the Space for IDA framework, it has made it more challenging to build momentum at the WB without a dedicated trust fund for greater integration of EO in projects.

E04SD may have influenced IFI counterparts' expectations for complementary activities.

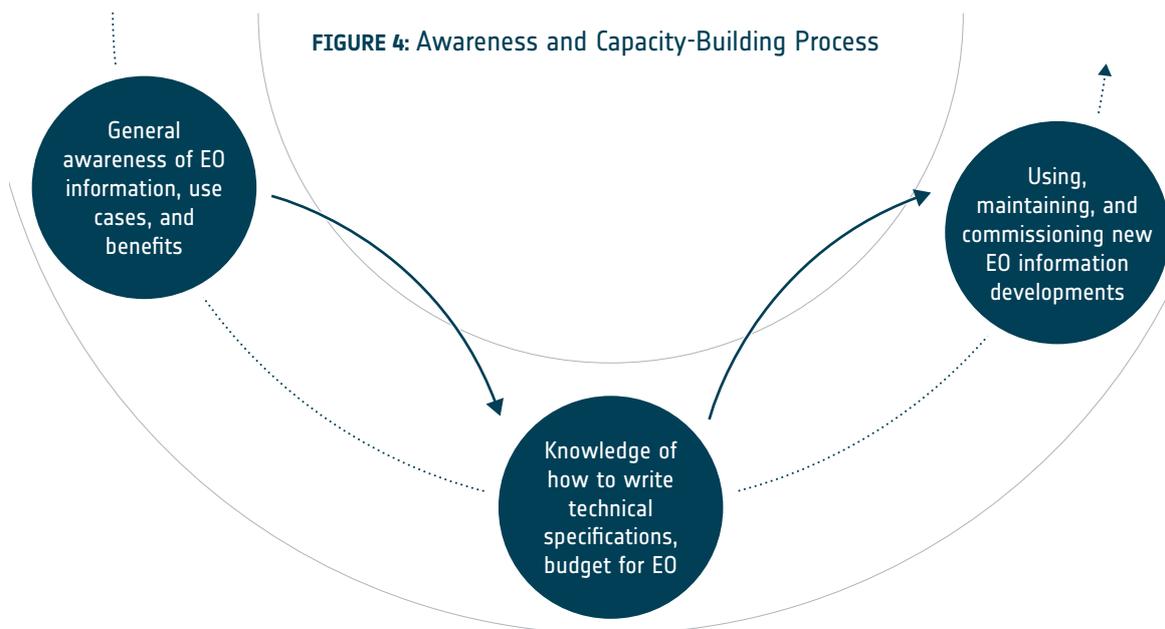
One of the perceived barriers to implementing complementary activities to date has been the difficulty in shifting responsibility for complementary activities to IFI teams. This is seen as a legacy of E04SD; in that precursor initiative to GDA, capacity building was funded by ESA. While the change in structure of Space for IDA was agreed with senior leadership at each IFI, individuals implementing work with each GDA AID activity haven't always appeared to be as aware of the change in structure. This has been particularly persistent with the initial GDA thematic activities that overlapped with E04SD topics, and where at times GDA AID activities have worked with the same counterparts as in E04SD. It is believed that this has been a key barrier to shifting responsibility for complementary activities to the IFIs.

However, ESA representatives are hopeful that, as new thematic GDA AID activities kick off that cover themes not previously addressed in E04SD (e.g., clean energy, transportation, and health), IFI staff will more easily adapt to the new complementary activity structure.

Complementary activities also need to address practical skills related to contracting EO developments.

Although there is a good level of awareness of EO capabilities across the WB and ADB, there are relatively few staff members who have experience with and expertise in using EO or broader geospatial data, and even fewer people whose time is dedicated to this kind of analytical work—hence the need for complementary activities. The activities currently in planning are focused on building specific skills and adapting specific EOIDS created in GDA.

However, there is also a sense from GDA AID activities that, in some cases, these specific activities are jumping over key steps in the process, and that IFIs could benefit from training not only on using or integrating EO, but also on how to work more effectively with the EO industry, including how to write SOWs and set estimated budgets when commissioning new EOIDS. GOST at the WB has some existing remit to support broader geospatial related procurement processes and can be a useful resource during this process.



There is a preference for open source solutions.

GDA-funded EOIDS are a separate element of the Space for IDA cooperation framework and are not directly related to complementary activities. There is, therefore, no obligation for any of the complementary activities to focus on any particular EOID. Given the preference for open source solutions, it is possible that IFI financing will be directed away from capacity building related to a specific development in favour of building capacity related to open source methods and processes.

"[The stakeholders] that have expressed a strong preference for an open source solution are, most probably, not going to align resources or complementary activities if the deliverables of the consortium are not open source ... this is a reality we have to deal with."

Alex Chunet, WB

No early impacts of capacity building yet

At both IFIs there have been ongoing training and capacity-building efforts that complement Space for IDA, although not directly related to GDA. For example, at ADB there are an average of two to three events per year with on average 40 people in attendance on various geospatial-related topics. At the WB there are frequent capacity-building exercises, for example, on GEMS and the use of satellite imagery. Many of these activities predate Space for IDA and cannot be directly attributed to the current iteration of cooperation, but rather build on over a decade of collaboration, including EO4SD. These are a source of good practice for Space for IDA to continue to build on and extract lessons learned about how to promote complementary activities within Space for IDA.

For those capacity-building activities directly related to Space for IDA, it is still early in their implementation to clearly document the outputs, let alone early impacts.

Review of good practices

Caribou Space has conducted a review of good practices in relation to capacity-building and skills-transfer activities and has identified the below practices as potentially beneficial to Space for IDA. These practices are further elaborated in an internal report for ESA, the Space for IDA Roadmap, but can be summarised as follows:

CAPACITY BUILDING

- » Ensure that activities are **co-developed** with local users, so that they are adapted to unique local needs.
- » **Assess outcomes on participant capacity** and long-term changes in practices resulting from activities.
- » Ensure that courses and certifications are **accessible to technical and nontechnical audiences** to ensure applicability.
- » Develop **infrastructural capacity** to address technological and legislative barriers to capacity building.
- » **Avoid duplication** and take advantage of platforms and tools that are already available that complement Space for IDA objectives.
- » **Collaborate** with local stakeholders to build local ownership and ensure local expertise is integrated into activities.

SKILLS TRANSFER

- » Support **incubation**-based approaches to grow local startups/entrepreneurs in CSs.
- » Support **holistic approaches** that transfer not only EO technical skills, but also **entrepreneurship skills** that are needed to grow local ecosystems.
- » **Co-create locally managed hubs** that foster innovation, entrepreneurship, and EO development.
- » Identify and **collaborate with champion institutions** with experience in training, education, and driving entrepreneurship and ownership of digital technologies (e.g., regional Centres of Excellence).

In future Space for IDA evaluations, Caribou Space will revisit the above list to assess the extent to which complementary activities implemented have demonstrated any of these stated good practices.



Recommendations to improve implementation of complementary activities

Recommendations for ESA

Leverage the activities, relationships, and results from E04SD to “speed up” GDA.

There is persistent feedback that IFI projects want to “see more results” before they commit to complementary activities. However, ESA has over a decade of experience supporting IFI projects and has produced numerous products and prototypes highlighting the potential of EO to support development challenges across eight thematic areas. Especially when working with IFI projects and team leaders who were not previously involved in E04SD, ESA representatives and TOs should make use of the products, communications tools, and use cases to accelerate the engagement process and build buy-in from an earlier stage.

Continue to push for alignment from IFI teams and broaden responsibility for engaging IFI projects to include TOs.

ESA and GDA consortia need to regularly re-emphasise and even sometimes actively push the need for alignment to IFI teams. This requires consistent, proactive engagement to define complementary activities and remind IFI project task teams of this key cooperation requirement, and support them to see plans through. Particularly at the WB where Space for IDA is supporting a very large number of projects, it is not reasonable to expect that a single ESA representative can deeply engage with all projects to drive forward complementary activities. ESA should explore potential for TOs (or short-term consultants) to support the process of engaging with IFI projects to define complementary activities and bring the plans to fruition.

ESA should capitalise on new cooperation arrangements with IFIs to re-establish commitments for complementary activities.

ESA can use the renewed attention to the cooperation to host meetings with senior management from each IFI team to launch the new agreements and establish plans including but not limited to:

- » Reviewing evaluation findings,
- » Establish dedicated trust funds, and
- » Providing clarity to programme staff on funding options for complementary activities.

Broaden the remit of basic skills in GDA ABC to include procurement processes.

As noted in the recommendations above for improving triangular cooperation, IFIs would benefit from additional knowledge on how to procure EO Information support (for capacity building, skills transfer, and creation of new/adapted EOIDs).



Recommendations for IFIs

Make connections between IFI senior leadership and project leads.

IFI teams should make better use of cross-cutting teams (for example, the EO for Development and Digital Transformation initiative at ADB, or the DEP at WB) to coordinate and facilitate complementary activities and align financing at each IFI. Supporting teams that have strong knowledge of EO and the Space for IDA cooperation framework can work with TTLs and ESA representatives to write proposals for internal funding and identify suitable programmes and TFs to apply for funding in line with newly signed agreements.

Implement capacity-building activities in line with best practices identified.

There is a wealth of learning from existing similar initiatives about how to implement capacity-building activities. This includes allowing space for true co-creation, focusing on impacts, balancing technical and nontechnical skills, funding human and infrastructural capacity, collaborating with others, and taking advantage of existing platforms and tools. IFI teams should ensure they apply these learnings to future capacity-building activities to be designed.

Implement skills-transfer activities in line with best practices identified.

Support holistic skills-transfer activities that include efforts to build the local ecosystem—not only through EO skills transfer, but also through complementary entrepreneurship skills. This can include supporting incubation approaches and locally managed hubs, and collaborating with champion institutions with relevant experience to lead skills-transfer work.

Recommendations for GDA M&E Contractor

In future Space for IDA evaluations, Caribou Space should revisit the list of good practices identified from other geospatial related capacity-building initiatives to assess the extent to which complementary activities implemented have demonstrated any of these stated good practices.



Impact within IFIs and CSs

Via greater use of EO Information amongst IFIs and active promotion of use cases, experiences, and other enabling conditions, Space for IDA is expected to eventually lead to the mainstreaming of EO in development activities. At scale, it is expected to have multiple long-term collective impacts on the way development operations are planned and implemented and will provide various benefits to IFIs and CSs.

While Space for IDA is still early in the impact pathway, this section outlines the extent to which any nascent impacts have been seen and provides recommendations for future implementation of the cooperation framework to enhance impacts. It addresses the desired impact from the cooperation (that EO Information is planned and provisioned for in the financial resource and operations of all relevant phases of IFI development assistance projects) and the long-term collective impact that operational mainstreaming will support (e.g., on efficiency of operations, policy definition and planning, accountability, etc.). The evaluation questions this section addresses are:

Mainstreaming

- 1 To what extent has EO Information been mainstreamed and operationalised into IFIs' working processes and practices? What is the contribution of the cooperation framework to the observed mainstreaming results?
- 2 Have any benefits been observed by IFIs relating to using EO Information in the following areas
 - a Increased efficiency of existing operations and activities,
 - b Improved policy definition and planning,
 - c Improved transparency, responsibility, and accountability,
 - d New and extended capabilities to address development challenges,
 - e Socioeconomic impact in client countries, and/or
 - f Support growth in the digital economy?

Wider impacts

- 3 What other changes have been observed in the adjacent development community due to the collective implementation of the GDA Programme and Space for IDA cooperation framework?



A significant challenge to assessing these impacts at the current stage is that no IFI projects have fully implemented (let alone mainstreamed) EO Information as a result of the GDA Programme or Space for IDA cooperation. Some EO4SD activities have led to follow-on CS loans or procurements,²¹ illustrating the long timeline that is often needed for follow-on activities. However, it is still too early for much of the EO Information explicitly developed under GDA AID to have been taken up in this way. While IFI partners have already identified several opportunities where they would be interested in expanding and replicating the EO Information to new geographies, it is still early on the path towards EO Information being “mainstreamed” within IFIs.

Key findings

EO Information has been steadily growing in awareness and acceptance at IFIs over the past five years. Most of this growth has been attributed to gradual technology diffusion at IFIs and stimulation under the previous EO4SD initiative, feeding into the more recently defined Space for IDA cooperation framework. GDA AID activities need more time, and more complementary activities need to be conducted, for initial outcomes from those activities to materialise and before mainstreaming of EO as a direct result of Space for IDA can be detected. It is expected that this will be a gradual process accelerating over time, building on progress from precursor activities, strengthened through GDA and increased IFI ownership, to accelerate mainstreaming and eventually operationalise the use of EO within IFIs. The progress in this early phase of Space for IDA implementation may have been slower than initially anticipated; however, IFI internal structures and approaches are being optimised to pave the way, and GDA consortia members have also already identified over €2 million of new funding opportunities to provide EO Information services to IFI clients.

At this stage in the cooperation framework, activities have not sufficiently progressed to be able to comprehensively assess impact of this kind, but the evaluation questions and methods are designed to ensure that it is possible to identify any of these impacts in the future.

Mainstreaming

Mainstreaming has already begun at IFIs over the past five years.

“We do observe that EO, and geospatial analytics is increasingly not considered disruptive anymore, but considered something normal ... and I think it goes in parallel especially with EO4SD.”

Christoph Aubrecht, ESA

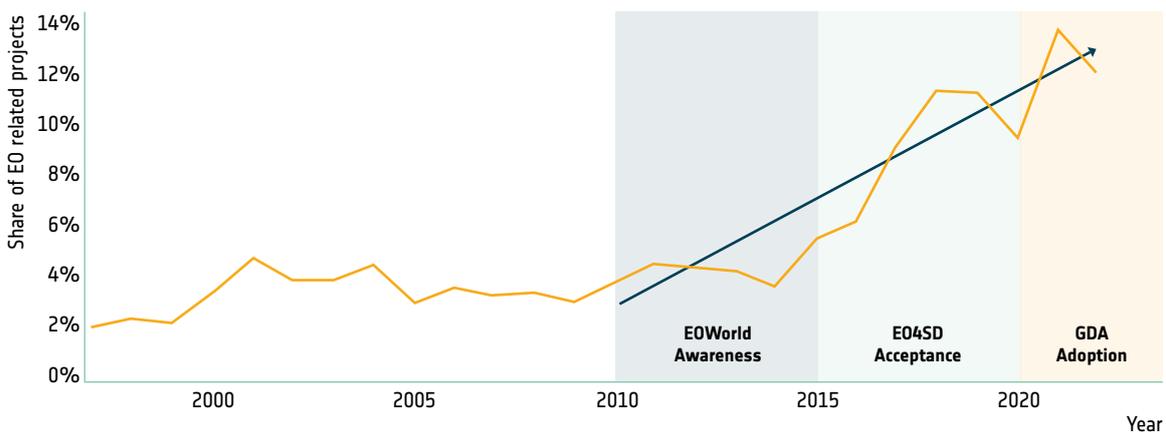
At the start of GDA AID activities in late 2021, the use of EO in the WB and the ADB was already reasonably well-established, in particular when compared to five years earlier. Interviews conducted by Caribou Space as part of the baseline analysis, called Initial State of Play, under the GDA M&E activity suggested that awareness and acceptance of EO Information have increased significantly over the past ten years.

²¹ For example, SISTEMA, a consortium member from the EO4SD Fragility activity developed an analytical platform on the impact of climate change and was asked by ADB to do some follow-up work to analyse the environmental conditions in refugee camps under a new procurement. ESA, SISTEMA to support the Asian Development Bank Fragile and Conflict-Affected Situations team, 21 November 2022, <https://gda.esa.int/2022/11/sistema-to-support-the-asian-development-bank-fragile-and-conflict-affected-situations-team/>

Many attributed this increase in awareness and acceptance of EO to internal organisational changes (e.g., the creation of informal working groups and more formal entities such as GOST within the WB), collaborations and partnerships (including with ESA on the EO4SD initiative), and changes in the sector that have led to greater availability of and accessibility to EO data either for free or at a more affordable price. In addition to this, the past two years have also seen a notable increase, as COVID-19 travel restrictions have encouraged staff to look at alternative ways to design, manage, and monitor projects without the need for international travel.

The Initial State of Play analysis identified many procurements of EO data from both the ADB and the WB and found that mentions of intention to use geospatial information—including EO—have increased by ~1% year on year among WB projects over the past 10 years, with more than 10% of projects mentioning intentions to use geospatial information by 2022. However, despite this high level of activity on a project-by-project basis, many of our interviews suggested that the use of EO is some way from being fully operationalised or scaled across entire sector portfolios.

FIGURE 5: Proportion of WB Project Documents Mentioning EO-related Keywords with Illustrative Trend Line



While this growth has been positive, it is not enough to suggest that EO Information has been “mainstreamed” within IFIs, or that Space for IDA explicitly needs to speed up the process. This positive trend is likely attributable to the gradual process of technology diffusion, as well as the long-term engagement between ESA and IFIs that Space for IDA is built upon and now capitalises on.



There are several barriers to mainstreaming.

There are several barriers that have been identified that could limit future mainstreaming. Many of these barriers have already been highlighted in this review; they include:

- » There are often prohibitively high costs associated with acquiring value-adding EO services and information products (and, when needed, commercial EO data), which IFIs need to be prepared to absorb.
- » Limited progress on capacity-building and skills-transfer activities may keep IFI teams from engaging more deeply with EO Information.
- » Insufficient engagement from senior leadership at IFIs to act as champions for GDA, incentivise staff to take risks on innovative approaches, and invest in complementary activities.
- » Social barriers including bureaucratic systems at IFIs, staff rotations, and complex funding structures that can disrupt or stall progress.
- » Infrastructure barriers, including technical (computing) facilities to access, process, and interpret EO data within CS and IFI project teams in-country.

While many of these barriers will be “naturally” overcome in time, the Space for IDA cooperation framework seeks to accelerate this mainstreaming process. At this point, however, it is still a very supply-driven process—with ESA stimulating demand via the GDA AID activities—rather than a demand-driven approach from IFIs seeking more EO integration in their projects, despite signs in some thematic domains that process beginning to switch.

Growth in use of European-derived EO services by IFIs

While barriers to general mainstreaming still exist, European EO services companies represented in GDA report positive signs of IFIs having interest in their services. Of 34²² European companies surveyed, 21 (63.6%) have already identified follow-on opportunities with IFIs, indicating that there is reasonable demand for European services. In total 30 new opportunities have been identified (as some opportunities have multiple GDA companies working together). The majority of these opportunities (40%) are still in early discussions, reflecting the overall status of the cooperation.

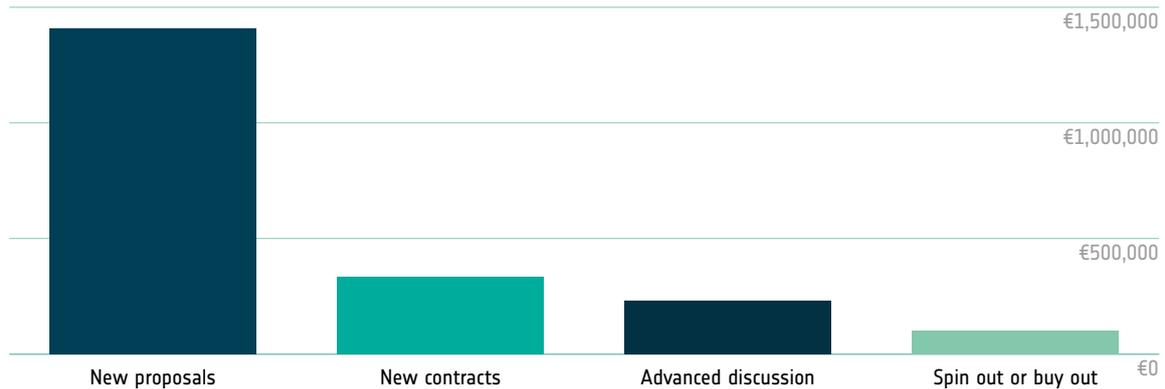
FIGURE 6: Stage of Opportunities for GDA Consortia Members



22 There are a total of 38 companies in all GDA consortia. However, at the time of publication of this review, the GDA Clean Energy activity had only just kicked off and was not included in data collection as the companies involved were unlikely to have already had meaningful outcomes from participating in GDA.

Half of these opportunities are still in such early stages of discussion or proposals that the EO companies involved do not yet know the potential value of the contracts. However, the other half are estimated to have a total potential value in excess of €2 million.

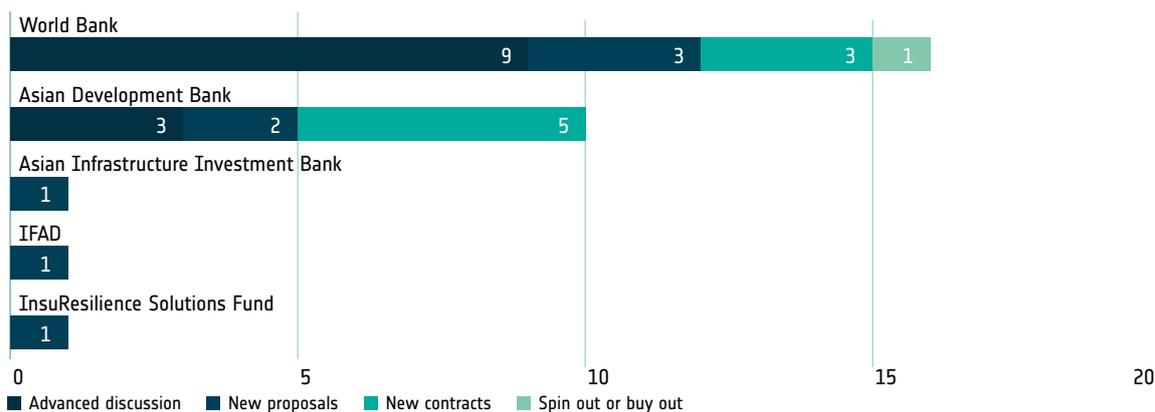
FIGURE 7: Opportunity Types by Value



The largest single opportunity is estimated to be worth €950,000 (with InsuResilience Solutions Fund²³). However, the average is estimated to be much smaller (€135,000), indicating that opportunities are still small and focused on discrete products.

While most opportunities are with the WB, a far greater proportion of the ADB opportunities have reached a contracting stage, indicating that, while the total volume of opportunities is less, the process is further along.

FIGURE 8: Opportunities per IFI



Opportunities are spread out geographically, with 21 different countries represented spread mainly across Southeast Asia, South Asia, and Africa.

²³ The InsuResilience Solutions Fund is funded by KfW Development Bank on behalf of the German government (BMZ) and serves as the implementing program of the InsuResilience Global Partnership, which has over 120 different members, including the WB and ADB.



Wider impacts

There is no evidence yet of wider impacts for IFIs and CSs resulting from Space for IDA.

There were no IFI projects, nor GDA AID activities or ESA staff, that could point to wider impacts achieved yet as a result of the Space for IDA cooperation framework. This is not surprising, given that, as of December 2022, while 36 EOIDs were in development and an additional 30 in active discussion, none had yet been handed over to IFIs as final versions for implementation. Any impacts that may have emerged so far are more likely to be linked to EO4SD and/or the more general process of EO becoming mainstream at IFIs. For example, this includes a US\$550-million loan from ADB to Indonesia for work including:

- » using geographic information systems to improve asset management;
- » water accounting using satellite data to optimise water management and investments;
- » piloting benchmarking of land use change and erosion; and
- » improving engineering standards to better integrate climate resilience and natural-based solutions.

Recommendations

Recommendations made earlier in this evaluation are anticipated to have a cumulative effect on mainstreaming and impacts of EO Information within IFIs and CSs.



6

Conclusions

After just over one full year of activities, Space for IDA has made significant achievements. Seven GDA AID activities have begun developing 36 distinct EOIDs for 32 IFI projects or programmes in 40 countries on uses of EO Information to solve development challenges.

An additional 30 products are in active discussions with IFI projects, with work expected to begin in 2023. Many of these collaborations are in early stages, but they are showing promising signs that end users are becoming more aware of the potential value and uses of EO Information in their respective areas.

Relationships in the triangular cooperation approach are strongest between ESA/the EO service sector and IFI projects and programmes; counterparts in IFI client countries have been less involved to date in any activities. Activities planned—including implementing new cross-cutting GDA activities, increasing complementary activities led by IFIs, and handing over EOIDs created in GDA to beneficiary partners' relationships—will continue to strengthen, and all elements of the triangular relationship will become stronger.

To date, the implementation of complementary activities has been less than initially anticipated, mainly as IFI projects have opted to wait for GDA AID led EOIDs to further progress before dedicating budget towards activities. Additional challenges, including the lack of dedicated funding sources (e.g., the planned WB TF), initial misaligned expectations of roles and responsibilities for complementary activities, and the need for more foundational skills building, have further slowed progress. However, stakeholders are optimistic that many of these challenges are being actively addressed and significant progress can be made in 2023.

Awareness and acceptance of EO Information has been slowly growing at IFIs over the past five years. Most of this growth has been attributed to gradual technology diffusion at IFIs and the previous EO4SD initiative (i.e., the programmatic GDA precursor) that Space for IDA builds upon. More activities need to be implemented and initial outcomes from those activities to materialise before mainstreaming of EO as a result of Space for IDA can be assessed. While overall progress is slower than initially anticipated, GDA consortia members have already identified over €2 million of new opportunities for them to provide EO Information services to IFI clients.

The coming two years should reflect significant progress for Space for IDA. All of the current GDA AID activities will begin to draw to a close, and it will be possible to assess the early impacts of the initial collaborations and EO Information more concretely. At the same time, additional activities (AID and others) will be launched, creating a more comprehensive programmatic approach. Finally, it is anticipated that IFIs will significantly increase their implementation of complementary activities that will benefit GDA and the wider Space for International Development Assistance cooperation framework.

To evaluate the ongoing impact of this work, the GDA M&E activity will continue to assess and document results against the GDA Theory of Change through periodic reviews of both the GDA programme and the wider Space for IDA collaboration.

FIGURE 9: Timeline of Future Evaluations of GDA and Space for IDA





Annex 1

Evaluation methodology

To assess progress towards the objectives of the Space for IDA cooperation framework and the ultimate impacts defined in the [GDA Theory of Change](#), a measurement approach has been designed that enables all stakeholders to engage and measure progress, throughout the cooperation period to enhance and improve responsiveness, within both the GDA Programme and associated activities within IFIs. A robust measurement approach also ensures the cooperation framework has sufficient data to measure the impact towards the end of 2025.

This measurement approach forms the basis of the methodology for this Space for IDA Review. It is based on three core components:

- » GDA Programme Theory of Change (ToC): To design a measurement approach, the first step was to articulate how/why it is expected that GDA will achieve the anticipated impact—including activities led by the WB and ADB that contribute to the overall goals of the Space for IDA cooperation. This was defined as the change the programme aims to bring about, the causal chain of events that are expected to bring about that change, the main actors involved, the groups who will be impacted, and the conditions required for the intervention to be successful. The GDA ToC has been defined in narrative (written), diagrammatic,²⁴ and video-based²⁵ explanations of why the programme activities are expected to produce the outcomes and impacts anticipated. See detail in [Annex 2](#).
- » GDA Programme indicators: As the GDA ToC lays out the “expected story” of the programme in advance, it provides an explicit framework for assessing progress. Thus, the ToC is operationalised by developing indicators that, when measured, will demonstrate levels of progress on various outputs, outcomes, and impacts.

From this, an evaluation framework was developed, including the key evaluation questions:

Triangular cooperation

- 1 Trust and ownership.** To what extent has ownership increased, and trust been established between all partners/consortia involved, in the GDA Programme and IFI cooperation framework?
- 2 Promoting complementarity and coordination.** As a collective, have partners made use of their complementary strengths to enhance the cooperation framework and GDA Programme?
 - a** What impact has the “exchange of personnel” had on the hosting institutions, the consortia (as relevant), and the main activities implemented under the cooperation framework and GDA Programme?
- 3 Joint learning.** Has a process for sharing learnings and experiences in implementation been developed? If so, has this been valued by all partners? Have learning exchanges been applied by any of the partners?

²⁴ David Taverner and Niamh Barry (Caribou Space), and Christoph Aubrecht (ESA), ESA's GDA programme invests in understanding and generating impact, June 2022, <https://gda.esa.int/story/esas-gda-programme-invests-in-understanding-and-generating-impact/>

²⁵ David Taverner (Caribou Space) and Ravi Kapur (Imperative Space), VIDEO: GDA Theory of Change, <https://gda.esa.int/2022/10/video-gda-theory-of-change/>



- 4 Enhancing scope.** To what extent and to what effect have partners mobilised additional resources, networks, and institutions to enhance the volume, scope, and sustainability of the Space for IDA cooperation framework?

Knowledge development

- 5 Assessed under Task 3: GDA Programme Evaluations.** The main areas of GDA assessed include processes, innovation, awareness, value, growth, (mainstreaming), and impact.

Capacity building

- 6** To what extent have the activities implemented under the Space for IDA cooperation framework improved EO acceptance through capacity building?
- 7** Did the various capacity-building activities enable target stakeholders (IFIs and CS representatives) to improve their skills to use EO Information? Why or why not? In what ways?
 - a** Were there any observable commonalities or differences between thematic areas/topics?
- 8** Did this improvement in capacity lead to specific instances of EO Information uptake? Why or why not?
- 9** What are some of the best practices and lessons learned on developing and delivering training to ensure uptake?
- 10** Was there an observable difference in acceptance among different categories of stakeholders?

Skills transfer

- 11** To what extent has the IFI cooperation framework increased adoption via skills transfer of existing European capabilities to CSs to produce and deliver EO Information themselves?
- 12** Have the activities under skills transfer resulted in select developing countries enhancing their own capabilities to provide EO Information? Why or why not?
 - a** Were there any observable commonalities or differences between thematic areas/topics?
- 13** Did an increase in local production of EO Information lead to an increase in local use? Why or why not?
- 14** What are some of the successes and challenges around skills transfer activities?

Space for IDA Initiative impact²⁶

- 15** To what extent has EO Information been mainstreamed and operationalised into IFIs' working processes and practices? What is the contribution of the cooperation framework to the observed mainstreaming results?
- 16** Have any benefits been observed by IFIs relating to using EO Information: 1) increased efficiency of existing operations and activities, 2) improved policy definition and planning, 3) improved transparency, responsibility, and accountability, 4) new and extended capabilities to address development challenges, 5) socioeconomic impact in client countries, and/or 6) support growth in the digital economy?

²⁶ Combined impact of the GDA Programme and the IFI cooperation framework activities.

Wider impacts

- 17 What other changes have been observed in the adjacent development community due to the collective implementation of the GDA programme and Space for IDA cooperation framework?

These questions were explored through the following data collection methods, all of which build on the methods employed in and analysis from the preceding *ESA Global Development Assistance Status Review Year 1*:

- » Document reviews: Deliverables created by GDA AID activities were analysed according to key themes emerging from the evaluation questions (for example, to provide context on the scope and depth of engagements with IFIs).
- » Key informant interviews: Key informant interviews (KIIs) have been conducted with representatives from WB, ADB, ESA, and the GDA AID consortia. All interviews were semi-structured and held over Zoom in over two time periods. In October and November 2022, a total of 22 individuals were interviewed for the GDA evaluation; 14 were also asked Space for IDA evaluation questions where relevant to minimise the need for follow-up interviews 1 to 2 months later. These interviews were with contact points from the ADB (3); WB (6) and ESA Technical Officers (5). Between December 2022 and January 2023 an additional 3 interviews were held with the ESA GDA Programme coordinator and representatives to each IFI. The same data analysis framework (based on the key evaluation questions) was applied to the coding and analysis of these interviews.
- » GDA AID consortia member survey: A brief survey was circulated to all GDA consortia members (n=34²⁷) in December 2022. As of 31 January 2023, responses had been received from all 34 consortia members. The focus of the survey was to identify the volume and value of follow-on opportunities secured by GDA participants with IFIs. This data was analysed to understand the average value of contracts, country/IFI distribution of opportunities, and thematic variance.

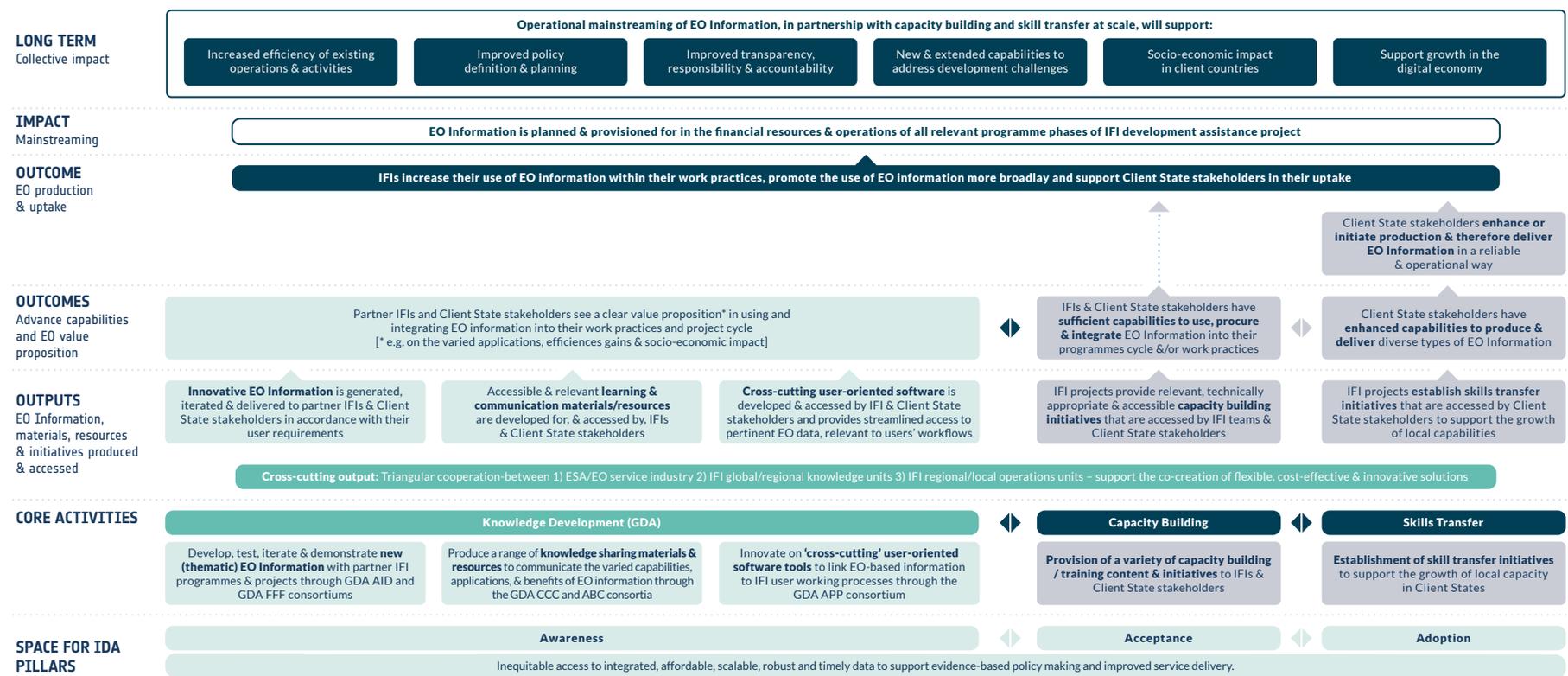
27 The members of the GDA AID Clean Energy consortium were not included, as the focus of the survey was on follow-on opportunities and the activity had only just launched in December 2022.



Annex 2 GDA Theory of Change

Below is the GDA Theory of Change, which is an illustration of the impact pathway that could be catalysed by the three-pronged strategy of knowledge development, capacity building, and skills transfer. A [video-based version](#) of the Theory of Change is also available.

FIGURE 8: GDA Theory of Change





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