

Report
47th Executive Committee Meeting
Geneva, Switzerland, 19-20 March 2019

As accepted at the 48th Executive Committee meeting.

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EXECUTIVE SUMMARY

Chair: Mmboneni Muofhe, South Africa.

1 GENERAL BUSINESS**1.1 Welcome from Co-Chairs and Secretariat Director**

Outcome: The Co-Chairs thanked Japan for hosting the GEO-XV Plenary and thanked Australia for its preparations for the GEO-XVI Plenary and Ministerial Summit. The Co-chairs noted that 2019 would be a busy year for GEO and that the agenda of the 47th meeting included many substantive items. The Co-chairs thanked the Lead Co-Chair and the Secretariat for the meeting preparations.

1.2 Adoption of Agenda (Document 47.1 (Rev.2) – for decision)

Outcome: The agenda was approved as distributed.

1.3 Draft Report of the 45th Executive Committee Meeting (Document 47.2 – for decision)

Outcome: The report of the 45th Executive Committee meeting was adopted as distributed.

1.4 Draft Report of the 46th Executive Committee Meeting (Document 47.3 – for decision)

Outcome: The report of the 46th Executive Committee meeting was adopted as distributed.

1.5 Review of Action Items from Previous Meetings (Document 47.4 (Rev.1) – for decision)

Outcome: The Executive Committee approved the closing of all Actions from the 43rd Executive Committee meeting. On Action 45.3 (Secretariat to present its proposed approach to ensuring transparency in dealings with the commercial sector), point 2 of the Secretariat response will be removed. The Programme Board will monitor potential opportunities for commercial sector contributions to the GEO Work Programme. Point 3 will be revised as follows:

The GEO Secretariat shall inform the GEO Co-chairs of any concrete offer of an in-kind contribution made by a commercial sector organization to the GEO

Secretariat or to be administered by the GEO Secretariat. This excludes contributions to specific GEO Work Programme activities. Offers of financial contributions to the GEO Trust Fund will be dealt with in line with Annex C of the GEO Rules of Procedure.

2 SECRETARIAT MANAGEMENT

2.1 Secretariat Operations Report (Document 47.5 – for information)

Outcome: The Executive Committee thanked the Secretariat for the report, noting the progress on the GEO engagement priorities.

Action 47.1: The Secretariat to revise the final document of record to reflect corrections identified by Germany. **Due: 29 March 2019.**

2.2 Secretariat Concept of Operations 2019-2021 (Document 47.6 – for discussion)

Outcomes: The Executive Committee thanked the Secretariat Director for the document, which provided a good basis for discussion. Additional time for input from Executive Committee members will be provided.

Action 47.2: Executive Committee members to provide further comments on the document. **Due: 12 April 2019.**

Action 47.3: The Secretariat to prepare a revised version of the document. **Due: 48th Executive Committee meeting (July 2019).**

3 A STRATEGY FOR A RESULTS-ORIENTED GEOSS

3.1 Update to the Strategy for a Results-Oriented GEOSS (Document 47.7 (Rev.1) – for discussion)

Outcomes:

- The Executive Committee expressed their appreciation for the compelling vision which was described in the document, noting that this vision is consistent with previous strategies for the future development of GEOSS.
- The Executive Committee requested that the Secretariat reflect on the comments raised during the meeting and make efforts to address these comments in the next version. In particular, the Secretariat was asked to consider how the vision may be implemented within existing resources, taking account of existing GEO systems, and in collaboration with the GEO community, Earth observations users, and other stakeholders. The proposed prototype of the Knowledge Hub intended to be presented at the GEO-XVI Plenary should include a concrete example of not only the technologies required, but also of the relationships required to implement the vision.

Action 47.4: The Secretariat to prepare a revised version of the document, addressing the comments raised during the meeting. **Due: 27 March 2019.**

Action 47.5: Executive Committee members to provide further comments on the revised document. **Due: 12 April 2019.**

4 FINANCE AND RESOURCE MOBILIZATION

4.1 Report of the Budget Working Group (Presentation by the Chair of the Budget Working Group)

Outcome: The Executive Committee expressed its appreciation to the Budget Working Group for its work in providing clarity on the state of the GEO Trust Fund resources.

4.2 Interim Report on Income and Expenditure (Document 47.8 – for information)

Outcomes related to this topic are included under Agenda item 4.1.

4.3 Resource Mobilization (Document 47.9 – for discussion)

Outcome: The Executive Committee noted the considerable success that has been achieved with Digital Earth Africa and the GEO-AWS Cloud Credits Programme and suggested that lessons be drawn from these initiatives that could inform other resource mobilization efforts.

5 2017-2019 GEO WORK PROGRAMME

5.1 Report of the Programme Board (Document 47.10 (Rev.1) – for discussion)

Outcomes:

- The Executive Committee expressed their appreciation to the Programme Board for its report and noted that the Programme Board is demonstrating its value in providing collective analysis and advice regarding the GEO Work Programme.
- The Executive Committee requested that, in the development of the 2020-2022 GEO Work Programme, the Programme Board give attention to the various components of the GEOSS infrastructure and that these components are coordinated by the GEOSS Platform team and the Secretariat.
- The Executive Committee expressed the view that it is necessary to monitor the progress of the GEOSS Platform and that the Secretariat and the Programme Board should develop indicators to measure the performance of the GEOSS Platform.

5.2 Terms of Reference for the Mid-Term Evaluation (Document 47.11 – for decision)

Outcome: The Executive Committee approved the Terms of Reference, subject to revisions to the evaluation questions to add the user dimension to question 2 and to include reference to the Regional GEOs in question 5.

5.3 Secretariat Performance Indicators (Presentation by the Secretariat)

Action 47.6: The Secretariat to circulate the list of proposed indicators to Executive Committee members. **Due: 27 March 2019.**

Action 47.7: Executive Committee members to provide comments on the indicators to the Secretariat. **Due: 12 April 2019.**

6 GEO PLENARIES AND MINISTERIAL PLANNING

6.1 Review of GEO-XV (Presentation by the Secretariat)

Outcomes: The Executive Committee expressed their appreciation to Japan for their hosting of the GEO-XV Plenary in Kyoto. The Executive Committee encouraged organizers of the GEO-XVI Plenary and Ministerial Summit to incorporate lessons from the GEO-XV Plenary and previous Plenary meetings in their planning.

6.2 Report from the Ministerial Working Group

Outcomes: The Executive Committee thanked the Ministerial Working Group and the Secretariat for the preparation of the Plenary and Ministerial, and noted that good progress has been made.

Executive Committee members noted that time was required to identify which ministers will attend the Ministerial Summit and thus it is important that the invitations be sent as soon as possible. Draft text for the declaration will also need to be discussed among multiple ministries within GEO Member countries and so the text should be reasonably complete in sufficient time prior to the Ministerial Summit to allow for this consultation. Also, ministers will need to be adequately prepared to engage in the discussion portion of the Ministerial Summit.

7 PARTICIPATING ORGANIZATIONS

7.1 Report of the GRASS Subgroup (Document 47.13 – for decision; Presentation by the United States)

Outcome: The Executive Committee thanked members of the GRASS subgroup for their efforts in reaching a consensus on this difficult issue. The Executive Committee approved the proposed changes to the Rules of Procedure, with the exception of changes related to intellectual property. The revised Rules of Procedure will take immediate effect.

Action 47.8: The Secretariat to publish the revised Rules of Procedure on the GEO website.

Action 47.9: The Secretariat to bring forward the proposed changes to the GEO Rules of Procedure related to intellectual property for Executive Committee approval. **Due: 48th Executive Committee meeting.**

Action 47.10: The Secretariat to track organizations interested in GEO Associate status but did not meet the criteria. **Due: 49th Executive Committee meeting.**

7.2 Report of the Subgroup on Participating Organizations (Presentation by IEEE)

Outcome: The Executive Committee thanked the subgroup members for their analysis and recommendations.

If it is determined through direct communication between the Secretariat and an organization that there is no longer interest in their continuing as a Participating Organization, then the organization will be removed from the list of GEO Participating Organizations.

Action 47.11: The Secretariat to follow up with the approximately 20 organizations for which no current GEO involvement has been identified. A list of organizations that cannot be reached will be provided to Executive Committee members for review and possible contact. **Due: 48th Executive Committee meeting.**

Action 47.12: The Subgroup on Participating Organizations to review whether changes to the GEO Rules of Procedure are needed to reflect the requirement of active contributions to GEO. **Due: 48th Executive Committee meeting.**

7.3 Review of Requests for Participating Organization Status (Document 47.14 – for decision)

Outcome: The Executive Committee approved the application from the World Food Programme.

8 ANY OTHER BUSINESS AND REVIEW OF ACTION ITEMS

8.1 Any Other Business

No items were raised.

8.2 Review of Action Items

The Executive Committee reviewed and approved the Outcomes and Action Items from the meeting.

8.3 Closing Remarks

The Co-Chairs thanked all participants and thanked the Lead Co-Chair for a well-managed meeting.

Draft Report
47th Executive Committee Meeting
Geneva, Switzerland, 19-20 March 2019

FULL REPORT**Tuesday, 19 March 2019***Meeting convened at 10:30*

Chair: Mmboneni Muofhe, South Africa.

1 GENERAL BUSINESS**1.1 Welcome from Co-Chairs and Secretariat Director**

Mmboneni Muofhe, Lead Co-chair, South Africa, welcomed attendees to the meeting. He thanked all those who contributed to the preparation for the meeting, remarking that there was a busy agenda for the two days. He asked that Executive Committee members be mindful of the time in making their remarks, though without wishing to impact the quality of the discussion. Mr. Muofhe noted that the meeting would include updates on many items and would also address changes to the GEO Rules of Procedure.

Steven Volz, Co-chair for the United States, also drew attention to the busy year ahead. He stated that it was important that the various players in GEO work well together, including the Executive Committee, Programme Board and the Secretariat. Observing the full agenda, he said that he looked forward to hearing from everyone around the table.

Patrick Child, Co-chair for the European Commission, said that he was happy to participate in the meeting. He thanked Japan for their hosting of the GEO-XV Plenary in Kyoto, especially for the focus of that meeting on the bigger political agenda in which GEO's work is framed. He also stated that he looked forward to the GEO-XVI Plenary and Ministerial Summit in Canberra, in particular, its focus on climate change. He noted that the next UN Framework Convention on Climate Change (UNFCCC) Conference of the Parties would occur a few weeks following the GEO-XVI Plenary, so that it was important that GEO shows how it can support work on climate.

Xingfa Gu, representing the Co-chair for China, stated that he was honoured to attend the Executive Committee meeting on behalf of China. He expressed his sincere thanks to the Lead Co-chair and the Secretariat for their efforts in preparing for the meeting. He observed that the meeting would set the stage for the rest of the year and thus it was important to note the connections with the GEO Work Programme and the preparations for the Ministerial Summit. He noted that the Asia-Oceania GEO meeting in the autumn and the GEO-XVI Plenary would both promote the role of Earth observations in economic growth. He thanked Japan for the preparations for the GEO-

XV Plenary and noted the progress being made by the Ministerial Working Group. He concluded by drawing attention to the work being done by Asia-Oceania GEO in actively promoting Earth observation capabilities within the region.

Gilberto Camara, GEO Secretariat Director, greeted Executive Committee members and acknowledged the work done in preparation for the meeting, particularly the leadership of the Lead Co-chair. Mr Camara thanked Japan for the hosting of the GEO-XV Plenary and noted the work by Australia in preparing for the Ministerial Summit. He thanked the members of the Budget Working Group for their preparation of the budget documents and the members of the Programme Board and the Expert Advisory Group for their work on the Strategy for a Results-Oriented GEOSS. He concluded by mentioning that the Secretariat had met recently with CEOS for the annual bilateral meeting, noting that the meeting had laid out clear future directions for the relationship between the two organizations.

Outcome: The Co-Chairs thanked Japan for hosting the GEO-XV Plenary and thanked Australia for its preparations for the GEO-XVI Plenary and Ministerial Summit. The Co-chairs noted that 2019 would be a busy year for GEO and that the agenda of the 47th meeting included many substantive items. The Co-chairs thanked the Lead Co-Chair and the Secretariat for the meeting preparations.

1.2 Adoption of Agenda (Document 47.1 (Rev.2) – for decision)

No issues were raised regarding the agenda.

Outcome: The agenda was approved as distributed.

1.3 Draft Report of the 45th Executive Committee Meeting (Document 47.2 – for decision)

No further changes were proposed.

Outcome: The report of the 45th Executive Committee meeting was adopted as distributed.

1.4 Draft Report of the 46th Executive Committee Meeting (Document 47.3 – for decision)

No further changes were proposed.

Outcome: The report of the 46th Executive Committee meeting was adopted as distributed.

1.5 Review of Action Items from Previous Meetings (Document 47.4 (Rev.1) – for decision)

Patricia Geddes, Senior Administrative Manager in the Secretariat, reviewed the action items and the proposed responses, noting revisions to the originally distributed document.

Several Executive Committee members raised concerns about the proposed response from the Secretariat to Action 45.3 regarding dealings between the Secretariat and commercial sector organizations. Following a period of discussion, it was agreed that

the Secretariat, in consultation with the Lead Co-chair, would present revised language to address the concerns. This was completed during the review of outcomes and actions from the first day.

Outcome: The Executive Committee approved the closing of all Actions from the 43rd Executive Committee meeting.

On Action 45.3 (Secretariat to present its proposed approach to ensuring transparency in dealings with the commercial sector), point 2 of the Secretariat response will be removed. The Programme Board will monitor potential opportunities for commercial sector contributions to the GEO Work Programme. Point 3 will be revised as follows:

The GEO Secretariat shall inform the GEO Co-chairs of any concrete offer of an in-kind contribution made by a commercial sector organization to the GEO Secretariat or to be administered by the GEO Secretariat. This excludes contributions to specific GEO Work Programme activities. Offers of financial contributions to the GEO Trust Fund will be dealt with in line with Annex C of the GEO Rules of Procedure.

2 SECRETARIAT MANAGEMENT

2.1 Secretariat Operations Report (Document 47.5 – for information)

The Secretariat Director introduced the report, expressing appreciation to the Japan Aerospace Exploration Agency (JAXA) for their contribution to the report on the Sustainable Development Goals (SDGs). Mr Camara noted that there has been good engagement with the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM), thanking Steven Ramage of the Secretariat for seeking areas for collaboration. He stated that the Secretariat is looking also at ways to contribute to the work of the Intergovernmental Panel on Climate Change (IPCC), including a recent meeting with its Secretary. A decision regarding GEO's application for Observer status with IPCC is expected imminently. The Secretariat is also continuing to be in contact with the UNFCCC regarding GEO's application for Observer status with that organization. Mr Camara observed that the Secretariat, in particular James Norris, was actively supporting work on the Sendai Framework, including contributions to the UNISDR's Global Assessment Report. The Secretariat was also seeing good engagement with UN Habitat regarding the New Urban Agenda, where considerable potential for GEO to contribute to issues of urban resilience was foreseen. Mr Camara briefly mentioned the upcoming Expert Advisory Committee meeting, noting that the Strategy for a Results-Oriented GEOSS would be dealt with at greater length later in the meeting. On the preparations for the GEO-XVI Plenary and Ministerial Summit, the Secretariat was actively supporting the Ministerial Working Group and was in the process of engaging Permanent Missions based in Geneva to increase interest in the event. Work with Digital Earth Africa was continuing, as was support to the GEO Land Degradation Neutrality Initiative. The GEO-Amazon Web Services (AWS) Cloud Credits Programme is reaching a large audience, based on attendance at webinars for the Programme. Development of the 2020-2022 GEO Work Programme is a key area of work in the Secretariat and Mr Camara noted the completion of a review of GEO Flagships and Initiatives that the Secretariat undertook in support of the Programme

Board. He also drew attention to the increases in uptake of GEO communications messages which indicate that these messages are reaching their intended audiences. He concluded by thanking Japan once again for its efforts regarding the GEO-XV Plenary, drawing attention to the large number of registered delegates and the significant media reach of the event.

The Lead Co-chair thanked the Secretariat for the report, noting considerable success on the engagement priorities. Further work is needed, however, particularly with respect to urban resilience.

Outcome: The Executive Committee thanked the Secretariat for the report, noting the progress on the GEO engagement priorities.

Action 47.1: The Secretariat to revise the final document of record to reflect corrections identified by Germany. **Due: 29 March 2019.**

2.2 Secretariat Concept of Operations 2019-2021 (Document 47.6 – for discussion)

The Secretariat Director introduced the document, which was intended to address the performance objectives established by the Executive Committee for the Secretariat Director. The present version was presented for discussion, following which a revised document would be prepared for approval. Mr Camara observed that this kind of document is new to GEO and thus there was no set structure based on past practice. He described the purpose of each section of the document and how they related to one another. Section 4 reviews the current status of GEO in relation to its goals and objectives, section 5 describes the proposed changes, at a high level, that are proposed by the Director to meet the goals and objectives. Section 6 then describes the Secretariat staff complement required to implement GEO's mission, including positions that are not currently filled. He noted that the plan also includes extra-budgetary positions for coordinators of each Flagship. Section 7 provides an operational plan based on the Secretariat proposal to the Programme Board regarding the Foundational Tasks, though it only describes the Secretariat roles in supporting the Foundational Tasks and not those undertaken by members of the GEO community. The Director concluded by stating that it was his belief that the document constituted the core of the requirements laid out by the Executive Committee.

The United States stated that the document provided an excellent compendium of the operations of the Secretariat that allows the Executive Committee to understand better the perspective of the Secretariat Director and to comment on the proposed directions. However, it was noted that the document assumed that the Strategy for a Results-Oriented GEOSS would be accepted. It was also observed that the Concept of Operations document was aspirational in that it assumed resources beyond those currently available. It was recommended that, given that the document was distributed after the usual timeline for Executive Committee documents, a period of time for further comments from Executive Committee members be provided.

Japan stated that the document helped them to understand the current situation in the Secretariat, however, given the available resources it may be necessary for each staff member to hold more than one position.

The Programme Board Co-chair stated that the Programme Board appreciated the increased support. Mr. Petiteville questioned whether the fact that the position of Work Programme Implementation Officer was unfilled meant that the described duties were going unfilled. The Secretariat Director responded that the duties were being fulfilled, but this meant that the existing staff were overstretched.

Australia stated that they welcomed the vision in the document. They cautioned, however, that GEO needs to be careful that the enthusiasm for open-source software does not lead to discouraging contributions from commercial sector firms. Use of commercial software may, in some cases, be more cost-effective than contributing to open-source. Advantages of open-source software are noted, especially for users with limited resources, but this should not mean putting in place restrictions. On the matter of the staffing plan, it was noted that from the perspective of the Budget Working Group, any further staffing will remain aspirational unless there are additional contributions to the GEO Trust Fund.

Italy welcomed the document, stating that it was the right document with the right content. It was suggested that it would be good to start from the GEO Strategic Plan 2016-2025 to determine what is being asked of GEO and the Secretariat. Some points were noted as missing from the analysis, including reference to Societal Benefit Areas and the Core Functions. It was observed that the functions on user needs and capacity building were mentioned only incidentally. Italy believes that the concept of operations needs to be flexible and adaptable in cases of lack of resources. What level of resources is needed to run the identified Secretariat staffing? What is the relationship between the identified positions and the Foundational Tasks?

Germany stated that the document was interesting but not ready for approval. There should be more reflection of the engagement priorities, with a particular requirement of having products for the upcoming UNFCCC Conference of the Parties. In this respect, it would be useful to know the status of staffing of the climate coordination position.

Switzerland said that they appreciated receiving the document. The differences in the composition of the GEO Secretariat and the IPCC Secretariat were noted, in particular how the IPCC identifies a staff member responsible for follow-up on every single agenda item and recommended that GEO implement a similar process of review, control and servicing of every activity in the GEO Work Programme. There should be consistency in approach across the GEO Work Programme, observing that recent experience shows that there are differences in how the Secretariat deals with different activities. The purpose of distinguishing between the various Implementation Mechanisms was also questioned.

China said that the document indicated a deep reflection on what GEO should do, aiming to prioritize access to Earth observation data and to serve the GEO community. Attention to the engagement priorities and to regional GEOs was appreciated. There needs to be further thought regarding what parts the Secretariat must do and what parts should be taken up by others in the GEO community. Perhaps regional and national GEOs could help provide support in some areas.

CEOS noted that there were some apparent duplications in position titles which should be addressed in case there was interest from the community in seconding persons to some of those positions.

The Lead Co-chair summarized the discussion, noting that more time is required for Executive Committee members to provide specific comments on the document. The document should provide more information regarding the level of resources required to run the Secretariat optimally, as well as discussion of how to then resource that strategy. Roles and responsibilities of the staff positions require some clean-up based on the comments from Executive Committee members.

Outcomes: The Executive Committee thanked the Secretariat Director for the document, which provided a good basis for discussion. Additional time for input from Executive Committee members will be provided.

Action 47.2: Executive Committee members to provide further comments on the document. **Due: 12 April 2019.**

Action 47.3: The Secretariat to prepare a revised version of the document. **Due: 48th Executive Committee meeting (July 2019).**

3 A STRATEGY FOR A RESULTS-ORIENTED GEOSS

3.1 Update to the Strategy for a Results-Oriented GEOSS (Document 47.7 (Rev.1) – for discussion)

The Secretariat Director introduced the item, stating that the Secretariat was interested in hearing the views and comments from Executive Committee members on the proposed directions, though reminding them that the document was not being presented for approval at this time. Mr Camara observed that the landscape in which GEO operates includes many organizations, including various UN entities and other intergovernmental organizations. He stated that this should not pose a threat to GEO provided it demonstrates a unique role. The challenge for GEO is how to increase its impact, which involves the scalability of the results it has achieved. Use of information based on Earth observations by decision makers requires that this information be trusted by them. Building this trust requires that the process of creating the information is in contact with these decision makers, in the countries where the decisions are made; this is what is referred to as “socially-robust” results. GEO has a role in helping to facilitate the production of socially-robust results by making it easier for Earth observations users (especially those in the developing countries) to access, not just services, but also the methods, algorithms, data and other components needed to replicate those results in their own country. The idea of the GEO Knowledge Hub is to create a place where all of the components necessary to reproduce the results produced in GEO Work Programme are available. This vision also requires that these users have access to analysis-ready data (ARD) and cloud computing platforms that enable replication and customization of the results for their countries without requiring the implementation of large physical infrastructures. The GEO Knowledge Hub and the GEOSS Platform will have interlinkages between them that are in the process of being defined. A subgroup of the Programme Board is currently working out the details of

how the work of the GEOSS Platform and GEO Knowledge Hub teams will be coordinated.

The European Commission appreciated the results-oriented vision set out in the paper and thanked the Secretariat Director for revising the paper quickly to address some of the previous comments from the Commission. The Commission did note that there remained outstanding concerns. First, while the technological dimension of the proposed changes was important, the paper does not go far enough in addressing the user aspect. How will this produce a useful tool and how will this tool address user needs? It was recommended that the next version of the paper shift much of the technical detail into a supporting document and bring out more clearly the user requirements that the GEO Knowledge Hub is intended to address and the impacts that are anticipated. The final product should look more like a strategy document than an analysis from an expert group. As well as being technologically rich, it must show how the proposed solution responds to the needs of the user community.

The United States observed that the paper has gone through multiple iterations and that there have been responses to the feedback received. In general, what is proposed is a good vision. GEO exists in a crowded field with lots of dedicated assets and investments. There may be a lot of resistance from other players and a need for collaboration. The strategy must allow time for communication and dialogue with stakeholders who may be invested in a different approach. The time prior to the GEO-XVI Plenary is not just about demonstrating the feasibility of the proposal, but also about how it has been adjusted in response to the consultations. The strategy document and the concept of operations document are two sides of the same piece and involve the same assumptions. It is important, however, that objectives are not confused with requirements. The strategy should define an approach, but it cannot mandate an approach; the Secretariat must convince others that the proposed approach is to their benefit. The prototype will be key in identifying the hurdles that must be passed to implement the approach.

China expressed the view that the strategy presented an exciting idea. GEO was more focused in the past on observations, but the Implementation Plan Working Group in 2015 showed that observation was not enough. GEO is now looking more at processing and information systems in addition to observing systems. This is a correct direction, a move towards knowledge and not just data. This is important for addressing the engagement priorities and for supporting decision makers. China agreed with the direction toward a results-oriented GEOSS but wondered whether this could be realized quickly. GEO has not yet completed the work on data sharing; there is agreement in principle, but countries do not follow in fact. GEO cannot realize the vision of a results-oriented GEOSS immediately, but it can develop prototypes and can discuss standards, methods, quality control and so on. China supports this direction, while recognizing that it will be very difficult to achieve.

Italy fully shares the goal of acting now to share knowledge more broadly. However, there are still some questions about how to implement this goal. Italy would like to see an analysis of how to include the new functions within the existing GEOSS infrastructure rather than to build a new infrastructure. It is not clear that the proposed approach is the best solution. The list of requirements in the document is good. What

technologies exist now and what new ones are needed? What are the gaps? It appears that the GEO Knowledge Hub is directed toward scientists as the primary users; GEO also needs to address the needs of decision makers. Regarding the proposed implementation plan, the knowledge hub is expected to be developed with Secretariat resources but given the shortage of funds how is this compatible with the other duties of the Secretariat?

Germany stated that the paper presented an interesting and useful idea, however, Secretariat resources are limited. The most important priority is to support the GEO engagement priorities; it is more important to have an expert coordinator for SDGs than to have a new technology. It is also better to invest in the GEOSS Portal than to have a new technology.

Australia said that the strategy presented a compelling vision for what the future could look like. To create such an operational capability, GEO will need to be realistic about what is achievable in the timeframe. Existing resources are not likely to be sufficient to build the required capability. The strategy will need investment by key stakeholders, which requires that they buy into the vision and in the building blocks. It is necessary that each component is worthy of investment in itself and not only in the context of the broader vision. The strategy needs to explain who will need to invest in these components and why.

Japan reminded the Secretariat of the importance of working in close coordination with the Programme Board. The Secretariat should analyse the similarities between the knowledge hub and the GEOSS Platform to ensure there will not be duplication.

Switzerland said that the strategy provided an interesting and inspirational direction. GEO intends to support user needs, although it is often difficult to identify users and what their needs are. Still, the foundational idea is that better decisions can be made with better data. The proposed architecture seems logical. It is good to start with a vision and then lay out a path to achieve it. Executive Committee needs to ensure that the steps in getting to the prototype are within the available means and are heading in the right direction. The Secretariat needs to show intermediate steps and interim progress.

CEOS stated that they shared the enthusiasm of the others but did have some points of concern. Space agencies have invested a lot of resources in the current directions and it will take time to move in a different direction; this must be factored into the plans. The timeline appears ambitious with respect to making changes in the availability of satellite data.

South Africa agreed that the paper presented a compelling vision that had developed considerably over the past few months. It is important to restate that what is being proposed is not greatly different from the strategy that was developed for GEOSS earlier. The proposal is a way of accelerating progress toward outcomes that were previously anticipated in the 2025 timeframe. It was acknowledged that there are points around resourcing, connections with existing initiatives, and how to bring in new contributions from GEO Members that still need to be fleshed out. The key question is how to achieve the goals within a reasonable period.

The Secretariat Director responded that the strategy is a living document and was not presented at this time for approval. All of the comments will be considered in future versions. It was recognized that the issue of resources was not addressed in this version. The idea of platforms to support open science is not new and many other organizations are creating these now. The knowledge hub is a customization of existing solutions and so the resource requirements much less than would be required to develop a solution from scratch. Only about five percent of what would have been required by a completely new solution is now needed, as the other ninety-five percent has already been done by others. Regarding the question on the links with the GEO Work Programme, there is an existing demand from Work Programme activities for knowledge hubs; this proposal is a response to needs identified by the GEO community. Regarding the point from Germany, support to GEO Members on, for example SDGs, requires that GEO provide them with a portfolio of approaches, methods, and results of how Earth observations can be used effectively. This does not mean we don't need an expert in the Secretariat, but there may be more benefit of building the portfolio first than to have an expert on staff. Most of the work involved in implementing the knowledge hub is not in writing code, it is in talking to the GEO Work Programme activities and encouraging their involvement. About the GEOSS Portal, the Secretariat has no governance over the GEOSS Platform; this is a matter for the Programme Board. On the CEOS point, the Secretariat acknowledges that the changes will take time and that it is important that GEO works closely with CEOS.

The United States responded that Executive Committee members were not challenging whether the technologies to implement the vision existed, but that the strategy may be underestimating the challenges of bringing stakeholders on board. Is it possible to scale back the proposal if needed? How does GEO thrive in the current environment while moving toward the vision? The fundamental limitation is not in the technology, it is with the people and organizations that are invested in other approaches.

Italy added that if ninety percent of what is required is already available, then what is missing? The current GEOSS Platform is capable to make available all kinds of resources, not only data. An analysis of what is currently available and what is missing was requested.

The Secretariat Director responded that the directions described in the strategy were based on the best analysis of the Secretariat. The GEOSS Platform does not provide the capabilities that are required. GEOGLAM is expected to be the pilot for the prototype, although discussions are also underway with other GEO Work Programme activities. Working with GEOGLAM will enable the Secretariat to identify any issues with sharing the various kinds of documents that the activity wants to share.

The Lead Co-chair stated that the Executive Committee takes note of the points that have been raised. It also appreciated the challenges in working with existing legacy systems in GEO and within limited available resources, while working collaboratively with the GEO community.

Outcomes:

- The Executive Committee expressed their appreciation for the compelling vision which was described in the document, noting that this vision is consistent with previous strategies for the future development of GEOSS.
- The Executive Committee requested that the Secretariat reflect on the comments raised during the meeting and make efforts to address these comments in the next version. In particular, the Secretariat was asked to consider how the vision may be implemented within existing resources, taking account of existing GEO systems, and in collaboration with the GEO community, Earth observations users, and other stakeholders. The proposed prototype of the Knowledge Hub should be an operational component of the broader “Strategy for a results-oriented GEOSS” intended to be presented at the GEO-XVI Plenary. It should include a concrete example of not only the technologies required, but also of the relationships required to implement the vision.

Action 47.4: The Secretariat to prepare a revised version of the document, addressing the comments raised during the meeting. **Due: 27 March 2019.**

Action 47.5: Executive Committee members to provide further comments on the revised document. **Due: 12 April 2019.**

4 FINANCE AND RESOURCE MOBILIZATION

4.1 Report of the Budget Working Group (Presentation by the Chair of the Budget Working Group)

Virginia Burkett (United States) presented the report on behalf of the Budget Working Group. Ms Burkett noted that the Working Capital portion of the GEO Trust Fund reserves was replenished in 2018 after being drawn down in 2017 due to reductions in contributions. Patricia Geddes added that the exact amounts for 2018 will not be known until the reserves required to address liabilities for staff salaries and long-term benefits have been determined by actuaries. For this reason, reserves are only included in the final annual statements. Ms Burkett then drew attention to the contributions for 2018, which were more than CHF 500,000 above those expected. This, combined with reduced Secretariat travel and WMO support costs, resulted in an estimated income surplus for 2018 of around CHF 760,000. However, cash contributions in 2019 are projected to be about CHF 400,000 below 2018 levels while staff costs and travel is projected to increase.

The Secretariat Director stated that travel by the Secretariat, including by the Director, has been reduced, with the savings directed to support travel by GEO Member representatives from developing countries.

China said that their contribution to the Trust Fund should be 300,000, as the amount that was previously earmarked for support to Asia-Oceania GEO will be available for general GEO purposes.

Outcome: The Executive Committee expressed its appreciation to the Budget Working Group for its work in providing clarity on the state of the GEO Trust Fund resources.

4.2 Interim Report on Income and Expenditure (Document 47.8 – for information)

Discussion and outcomes related to this topic are included under Agenda item 4.1.

4.3 Resource Mobilization (Document 47.9 – for discussion)

Steven Ramage (GEO Secretariat) spoke briefly about the distributed document. He stated that since there was no Secretariat staff position dedicated to resource mobilization these matters were addressed as time permitted. He thanked the United States (National Oceanic and Atmospheric Administration) for providing in-kind support in the person of Justyna Nicinska. Mr Ramage noted that Digital Earth Africa has thus far identified about \$18 million USD in funding, with an expectation to eventually reaching about \$30 million. The experience gained through this process will be extended to other projects. The Secretariat, accompanied by the Switzerland GEO Principal, met with representatives from the Canton of Geneva regarding possible funds to support travel of individuals from developing countries to GEO events. The Secretariat is also pursuing other possibilities for funding specific projects through other sources.

Australia noted that the success of Digital Earth Africa has been due in large part to the fact that it is building an operational infrastructure and not just supporting research. It is expected that there will be some benefit from this back to the Secretariat in recognition of the support that has been provided during the development of the initiative. The resource mobilization strategy has been to identify the kinds of projects that are of interest to stakeholders and aim to develop them. Digital Earth Africa demonstrates the potential of this approach, which is reflected in donor interest in other potential projects from GEO.

The Secretariat Director stated his view that Digital Earth Africa is a major milestone in resource mobilization for GEO. The project started with Australia, was taken up by CEOS, and other support has been built on this foundation. The Secretariat is keen on enabling this initiative to flourish. One issue that has come up concerns capacity development. Mr Camara said that the Secretariat met recently with ITC regarding how to support the skills development that would enable uptake of the Digital Earth Africa capabilities. This is an example of the strategy of using new technologies in places that have lacked them until now.

Outcome: The Executive Committee noted the considerable success that has been achieved with Digital Earth Africa and the GEO-AWS Cloud Credits Programme and suggested that lessons be drawn from these initiatives that could inform other resource mobilization efforts.

Meeting adjourned at 17:00.

Wednesday, 20 March 2019*Meeting reconvened at 9:00***5 2017-2019 GEO WORK PROGRAMME****5.1 Report of the Programme Board (Document 47.10 (Rev.1) – for discussion)**

Ivan Petiteville, Programme Board co-chair, presented the report on behalf of the Programme Board, summarizing the discussion at the 12th Programme Board meeting, which was held in February. Mr Petiteville described the preparations for the development of the 2020-2022 GEO Work Programme, which included refinement of the criteria for GEO Flagships, Initiatives and Community Activities. He noted that the Programme Board review process was organized around ten review teams composed of Programme Board members, with support from the Secretariat. Each team would review three or four Implementation Plans that are grouped thematically. A new structure for the Foundational Tasks was proposed by the Secretariat; a Programme Board subgroup had been created to work with the Secretariat to continue the development of the Foundational Task structure and descriptions. Mr Petiteville described the continuing engagement of the Programme Board with the Expert Advisory Group, reiterating that that process must remain open and collaborative. He expressed the Programme Board's view the GEO community must be engaged in the implementation of the Results Oriented GEOSS once agreement is reached within the GEO governance bodies. He also noted the view of the Programme Board that the Data Providers Workshop should continue in future and not be replaced by the Data Technology Workshop. Finally, Mr. Petiteville described the planning for the 2019 GEO Symposium, emphasizing that the Symposium this year would be focused on development of the 2020-2022 GEO Work Programme and hearing from the current Flagships and Initiatives. There was also interest in making the event more interactive.

Switzerland commented that there was a sense that GEO has improved and that the Programme Board was working well. A question was raised as to how GEO ensures consistency across all activities in the GEO Work Programme. How do we bring academic knowledge into action? How does GEO deal with the various kinds of activities, that is, the Flagships, Initiatives, Community Activities, and Foundational Tasks?

Mr Petiteville responded that consistency is ensured by the review criteria. The different types of GEO Implementation Mechanisms are not a question of importance, but of the criteria. Each type is valuable and this diversity is necessary. No uniformity of solutions is being proposed. The difference types stimulate creativity and the different solutions are beneficial to GEO.

Germany stated that they had had concerns about the Programme Board in the past but it appears to be working better now. More attention should be given to the GEOSS Platform.

Japan agreed with the idea to continue the Data Providers Workshop. Clarification of the difference between the Data Providers Workshop and the Data Technology Workshop was requested.

The United States said that there is an increasing maturity of the Programme Board and the value that it brings. It is not just creating consistency but performing a collective analysis. It is important to remember that the GEO Work Programme activities start from various points. It is important to bring lessons from successful activities to the others and to balance consistency and creativity. Executive Committee had heard on the previous day about the Strategy for a Results Oriented GEOSS and it is important that this new vision is balanced with the activities that are currently underway. The Secretariat was encouraged to present the vision of the Results Oriented GEOSS to the GEO Symposium so the GEO community might become more comfortable with the path forward.

South Africa stated that the FAIR principles need to be incorporated into the GEO language, though the GEOSS Data Sharing Principles should remain the core. A question was asked whether all elements of the GEOSS infrastructure would be brought into one Foundational Task.

The Secretariat Director thanked the Programme Board and its co-chairs, noting that the Programme Board is crucial to GEO. Mr Camara accepted the importance of showing the benefits to the GEO community of involvement in the knowledge hub development. Regarding the FAIR principles, he noted that the GEOSS Data Sharing Principles are a declaration of intent, while the FAIR principles refer to the actions that must be taken to ensure that the data can be used by others. The FAIR principles are consistent with and cover the Data Sharing Principles, but what the latter do not do is spell out the reusability of the data. This part is essential to the global community. The FAIR principles do not conflict with the Data Sharing Principles but are complementary to them. Also, while there are overlaps between the FAIR principles and the GEOSS Data Management Principles, most stakeholders outside of GEO are more familiar with the FAIR principles. Regarding the Data Providers Workshop and the Data Technology Workshop, the differences are nuances. The speakers and topics are similar between last year and this year. The name change reflects a change in the way that users of Earth observations are using the data. Most users are moving to the cloud and there are many technologies available to do this. It is positive for the GEO community to look at the options. The approach highlights users to a greater extent than in the past. This is not detrimental to data providers, it is going to the next step, how to use the data. It is completely consistent with the intent of the Data Providers Workshops.

Regarding the GEOSS Platform, Mr Petitville responded that it is true that it has not been entirely successful, based on usage numbers. The Programme Board and the GEOSS Platform team are working on this. The Platform team is also showing the benefits to the community of putting their data on the Platform and how the Platform can be used. Many GEO Work Programme activities are not yet making their products and services available through the GEOSS Platform, which is why it is important to have Secretariat support to connect GEO Work Programme activities to the Platform. Regarding the FAIR principles, it was agreed that the GEOSS Data Management Principles and the FAIR principles were complementary. As to the merging of the various infrastructure components, Programme Board would ensure that there is integration and interoperability among the components, although this would not necessarily mean they would be merged within a single Foundational Task.

The United States remarked that the discussion was another example of the tension between a vision of the future and the reality of today. The Secretariat is presenting a vision that is not equivalent to what is available now, but it has a responsibility to show stakeholders the path to go from the present to that vision. It is not sufficient just to explain the vision, the Secretariat must bring the GEO community along and recognize how the vision impacts the present.

The Lead Co-chair emphasized the importance of showing the community that the Secretariat, Programme Board and the Executive Committee speak with one voice.

Outcomes:

- The Executive Committee expressed their appreciation to the Programme Board for its report and noted that the Programme Board is demonstrating its value in providing collective analysis and advice regarding the GEO Work Programme.
- The Executive Committee requested that, in the development of the 2020-2022 GEO Work Programme, the Programme Board give attention to the various components of the GEOSS infrastructure and that these components are coordinated by the GEOSS Platform team and the Secretariat.
- The Executive Committee expressed the view that it is necessary to monitor the progress of the GEOSS Platform and that the Secretariat and the Programme Board should develop indicators to measure the performance of the GEOSS Platform.

5.2 Terms of Reference for the Mid-Term Evaluation (Document 47.11 – for decision)

Craig Larlee (Work Programme Coordinator, GEO Secretariat) presented the item, reminding Executive Committee members that this was in follow-up to the decision by the GEO-XV Plenary, on the recommendation of the Executive Committee, to begin the Mid-Term Evaluation in 2019. Mr Larlee explained that the Mid-Term Evaluation would follow the approach used in previous GEO evaluations, that is, to convene a team of evaluators whose time would be contributed by GEO Members and Participating Organizations. It was noted that, in accordance with the timeline presented to the Plenary, a call for nominations to the evaluation team had already been issued by the Secretariat. The key decision for the Executive Committee was to approve the Terms of Reference for the evaluation, which is the document that mandates the evaluation team to conduct the evaluation. In particular, the Executive Committee was asked to review the proposed evaluation questions. Mr Larlee noted that the Programme Board had already reviewed and revised the Terms of Reference at its 12th meeting, but that it was important that the Executive Committee, as a key client for the evaluation, ensure that the Terms of Reference adequately describe the nature of the evaluation they would like to see conducted. Mr Larlee cautioned, however, that the evaluation team, once convened, would have the opportunity to propose adjustments to the Terms of Reference since the actual size and composition of the evaluation team would then be known.

The United States asked what the expected costs of participation would be, given that the nominating GEO Members would be responsible for these costs. It was also asked

how diversity of membership could be ensured, such as by providing support to some Members.

China recommended that the evaluation team look at whether new elements to be introduced into GEOSS in future, such as data processing and the shift from data toward knowledge, would be sufficient to prepare GEO for future needs. It was also suggested that GEO Members cover all relevant areas and disciplines. China stated that they would nominate an appropriate member to the evaluation team.

South Africa asked whether the evaluation would address regional activities.

Italy proposed that the third evaluation question be broadened to include access to data. Some additional language should also be added to address the user dimension.

Switzerland asked whether the evaluation questions would be analysed to a level of disaggregation, such as by Societal Benefit Area. It was also noted that other organizations differentiated between internal and external evaluations. Would it be possible for GEO to pay for a true external evaluation?

The United States responded to China by saying that an evaluation should be of demonstrated performance and thus should be focused on the past, not on possible future performance.

Mr Larlee responded that the costs for participation on the evaluation team would be primarily in-kind time, plus the costs to attend three or four in-person meetings. The precise costs could not be determined in advance, as the evaluation team would determine the number and locations of the meetings. He observed that the Secretariat may be able to assist evaluation team members from developing countries with travel costs, subject to the availability of funds. This was noted in the call for nominations. Regarding the use of fully external evaluators, Mr Larlee observed that this option had been considered earlier by GEO when the Monitoring and Evaluation Framework was developed and the option had been rejected at that time. While this was partly due to the costs involved, it was also believed at the time that the approach used by GEO was more likely to ensure the evaluation teams had a suitable mix of expertise in the various disciplines relevant to GEO, as well as inclusion of team members who were familiar with GEO's unique governance arrangements. The approach had been used successfully through six evaluations. For this Mid-Term Evaluation, it would not be feasible to change the approach, although the suggestion could be considered for future evaluations.

Outcome: The Executive Committee approved the Terms of Reference, subject to revisions to the evaluation questions to add the user dimension to question 2 and to include reference to the Regional GEOs in question 5.

5.3 Secretariat Performance Indicators (Presentation by the Secretariat)

Craig Larlee presented a set of draft indicators for the GEO Secretariat, as had been requested by Executive Committee at its 46th meeting. He explained that these indicators were complementary to those aligned to the 2019 Goals and Objectives and which were reviewed earlier by the Executive Committee. The present indicators were intended to cover those aspects of the work of the Secretariat that were not directly aligned to the Goals and Objectives. The proposed indicators were aligned to the new

Foundational Tasks that were discussed by the Programme Board and which were also used in the Concept of Operations Document. They had been intended for inclusion as an annex to that document but due to timing of preparations of the various parts of the document, had not been included in the original distribution.

Italy asked why there were no indicators for GEOSS Platform development. Mr Larlee responded that these were not included since the GEOSS Platform is not managed by the Secretariat.

South Africa said that they were uncomfortable with there not being indicators of the GEOSS Platform. There should be a set of indicators covering these elements as part of the process for developing the Foundational Tasks.

The European Commission expressed the view that it was premature to develop indicators for the Knowledge Hub as the decision had not yet been taken on whether it would go ahead.

Germany agreed that there should be indicators for the GEOSS Platform.

Programme Board stated that the second indicator for the Knowledge Hub should be expanded to other data types. The focus should be on free availability of all required information.

The United States said that indicators could be developed without knowing all of the details of the management of the Platform.

The Lead Co-chair stated that additional time would be provided for Executive Committee members to comment on the proposed indicators.

Action 47.6: The Secretariat to circulate the list of proposed indicators to Executive Committee members. **Due: 27 March 2019.**

Action 47.7: Executive Committee members to provide comments on the indicators to the Secretariat. **Due: 12 April 2019.**

6 GEO PLENARIES AND MINISTERIAL PLANNING

6.1 Review of GEO-XV (Presentation by the Secretariat)

Patricia Geddes (Senior Administrative Manager, GEO Secretariat) presented a summary of the GEO-XV Plenary. Attendance remained high, being the third-largest Plenary that did not coincide with a Ministerial Summit. Ms Geddes noted the key decisions made at the meeting, notably, the creation of the Regional GEOs, the agreement in principle of the GEO Associate category, the approval of the timing of the Mid-Term Evaluation, the impetus given to the Strategy for a Results Oriented GEOSS, and the summary outcomes identified from the discussion panels. She noted that, while a participant survey was distributed, the response rate was not sufficient to provide quantitative results. However, comments from the surveys that were completed suggested that the meeting organization was very good, but participants desired even more interaction. The panel sessions were well received, although more setting of the scene would have been useful to induce greater discussion within the panels and with the Plenary participants. There was also a concern about the number of side events

being too high. Ms Geddes explained that the working group planning for the GEO-XVI Plenary and Ministerial Summit had reviewed the feedback and was incorporating changes to address the concerns.

Japan stated that it was their pleasure to host the Plenary in Kyoto and thanked the Secretariat, Executive Committee and working group members for their support through the process. They indicated their willingness to share their experience in hosting with future hosts.

Germany requested that the next Plenary discusses progress reports from GEO Flagships and Initiatives, as well as the GEOSS Platform.

Outcomes: The Executive Committee expressed their appreciation to Japan for their hosting of the GEO-XV Plenary in Kyoto. The Executive Committee encouraged organizers of the GEO-XVI Plenary and Ministerial Summit to incorporate lessons from the GEO-XV Plenary and previous Plenary meetings in their planning.

6.2 Report from the Ministerial Working Group

Virginia Burkett (United States) began the presentation on behalf of the Ministerial Working Group, drawing attention to the logo for the Summit, which had been designed by a notable Aboriginal artist. Ms Burkett emphasized that the theme of the meeting would be on using Earth observation data to drive improvements in economic productivity and growth. The Summit would be an opportunity for governments, businesses and others to realize opportunities offered by the integration of digital technologies and Earth observations. To this end, there would be a new feature, a dedicated industry track, that would provide more opportunity for engagement of commercial sector organizations throughout the week. Ms Burkett described the blocks of activity through GEO Week 2019. Organization of the week is being led by a two-part structure including not only a Ministerial Working Group, but also a Political Leadership Team comprising the four GEO Co-chairs, the Australia GEO Principal, and the GEO Secretariat Director. Regarding side events, the team is proposing to limit the number while seeking greater participation in each. Selection of side events will promote those linked to accelerating delivery of the GEO Work Programme and Strategic Plan, that tackle big challenges or opportunities, and that are organized by multiple GEO Members and/or Participating Organizations. A new event for this Ministerial Summit will be a Ministerial Roundtable to discuss 'big picture' topics likely to impact GEO's success; this event will be hosted by the attending Minister from Australia. The purpose of the Roundtable will be to foster direct interaction between Ministers during the Summit.

Stuart Minchin, GEO Principal for Australia, continued the presentation, noting that the Ministerial Roundtable and the Industry Track both represented the intent to give participants multiple reasons to attend the meetings. For example, in previous GEO Plenary meetings, the exhibition was relatively empty while delegates were in the meeting. The Industry Track offers opportunities for commercial sector representatives and others to engage in parallel sessions and thus offer greater value for their attendance. Mr Minchin then went on to describe the structure of the draft declaration. He noted that there is no clear document for approval, such as the Strategic Plan which was approved at the Mexico City Summit. The intent for this declaration is to provide

opportunity for attending Ministers to engage, discuss, and decide on future directions for GEO at the time of the Ministerial Summit. This may create some discomfort for GEO, due to the uncertainty of what will ultimately be decided, but this should provide for greater incentive for Ministers to attend. The structure of the declaration will provide for a series of options, but no final agreed text prior to the Summit. The declaration starts with a section on Context, then discusses progress in addressing issues identified at Mexico City. This is followed by a set of calls to action, identifying the key challenges and opportunities for GEO. Finally, there will be a section on responses, both at a policy or strategic level, as well as specific commitments and pledges. Turning to the Plenary agenda, the first day will be devoted to responses to the outcomes from the panel sessions at the Kyoto Plenary regarding the GEO engagement priorities. The second day will focus on how GEO should broaden its engagement, both geographically and by sector. The agenda of the Summit will be mostly available for interventions by Ministers; these are grouped by interventions on policy questions, then announcements of new investments, and finally interventions in support of the Declaration.

Steven Ramage (Senior External Relations Manager, GEO Secretariat) informed Executive Committee members of an upcoming site visit by Secretariat staff to Canberra. In part, the visit will continue meeting with representatives of GEO Member missions and embassies to inform them about the Ministerial Summit. The Secretariat will also visit the venues for the meetings and meet with the local organizing team to share previous experiences with Plenary organization and to check on the status of preparations. Maddie West (GEO Secretariat Communications Manager) then explained the status of preparations of Plenary and Ministerial communications. She noted the engagement of the GEO Communicators Network in promoting the events, but emphasized the importance of all GEO Members in this regard. Communications materials, such as slide decks, flyers, key messages, and so on, are available on the GEO website.

Stuart Minchin also drew attention to the importance of holding meetings with missions and ministries of GEO Members. He thanked the European Commission Co-chair for his efforts in setting up meetings at the Commission offices in Brussels and noted similar upcoming meetings in Washington, DC.

China drew attention to the importance of sending out the invitations to Ministers with sufficient notice. This is necessary to permit coordination of attendance within Member countries. It was also proposed that a prototype of the Knowledge Hub be presented to Plenary if it will be ready.

Japan stated that agreement on the declaration text requires coordination among multiple ministries and thus it would be preferable to have a near-final text of the Declaration in advance.

The European Commission observed that the preparations for the Plenary and Ministerial meetings were advancing well, and thanked the Secretariat and the Ministerial working group for these preparations. It was acknowledged that attracting Ministers to attend international meetings was a challenge and that the desire to find themes of interest to ministers was understandable. It was suggested that the Ministerial Working Group look to connect with the IPCC and with the European GEO

Caucus, looking to them to identify high-level speakers. The European Commission intended to showcase the results of its initiatives at the Plenary meeting, including through a booth. The Commission congratulated Ms West and her network on the excellent communications plan.

The United States thanked the team for its comprehensive update. The United States will be active participants at the Plenary and Ministerial Summit, although it may need to be silent on some topics. It was agreed that it is important to show returns on investment in data systems and data access.

The Lead Co-chair noted the uncertainty regarding the final content of the Declaration and noted that there could be a small risk that there would not be a declaration. He cautioned that many countries need to engage multiple departments on the preparation of declarations and this should be considered in how the discussions between Ministers would be managed at the event.

Outcomes: The Executive Committee thanked the Ministerial Working Group and the Secretariat for the preparation of the Plenary and Ministerial, and noted that good progress has been made.

Executive Committee members noted that time was required to identify which ministers will attend the Ministerial Summit and thus it is important that the invitations be sent as soon as possible. Draft text for the declaration will also need to be discussed among multiple ministries within GEO Member countries and so the text should be reasonably complete in sufficient time prior to the Ministerial Summit to allow for this consultation. Also, ministers will need to be adequately prepared to engage in the discussion portion of the Ministerial Summit.

7 PARTICIPATING ORGANIZATIONS

7.1 Report of the GRASS Subgroup (Document 47.13 – for decision; Presentation by the United States)

Yana Gevorgyan (United States) presented the report on behalf of the GEO Rules for Associates (GRASS) subgroup. Executive Committee members were reminded of the decision by the GEO-XV Plenary to approve in principle the proposal to create a GEO Associate category and to establish the GRASS subgroup to address outstanding concerns, delegating the final decision on the changes to the GEO Rules of Procedure to the Executive Committee. Ms Gevorgyan then described the key concerns that had been raised and how they had been resolved. Key points included:

- Internal procedures were not to be included in the Rules of Procedure itself;
- Candidates for GEO Associate status will need to demonstrate two or more years of substantive involvement with GEO, must identify self-funded and sustained contributions to GEO, and must be registered in the territory of a GEO Member;
- GEO Associates may freely participate in all GEO technical and programmatic events, but may participate in GEO Plenary meetings only when specifically invited by Executive Committee; they will not participate in the decision-making of GEO;

- GEO Associates are not covered by the privileges and immunities accorded by the Host Nation to the GEO Secretariat;
- GEO Associates must abide by the GEO ethics rules and conform to GEO intellectual property guidelines (to be added to the GEO Rules of Procedure in a separate process); and
- GEO Associate contributions will be documented and reported by the Secretariat in a separate category and the Budget Working Group will review pledged contributions to the GEO Trust Fund from GEO Associates and other non-Members to ensure their consistency with GEO's intergovernmental nature.

The Secretariat is tasked to receive and review applications for GEO Associate status, involving the Principal of the applicant's country. Following the consultation with the relevant GEO Principal, the Secretariat will recommend whether the application be approved or not to the Executive Committee. It was also recommended by the subgroup that Executive Committee periodically evaluate the usefulness of having the category, particularly though not exclusively for its impact on engagement of small, medium and micro enterprises.

South Africa asked how applications from organizations not based in a GEO Member country would be handled. Ms Gevorgyan responded that the applicant would be invited to engage with government entities in their country regarding their interest in joining GEO.

Australia asked whether the requirement of two years of prior involvement in GEO should be rethought. Organizations interested in actively participating in GEO should not be discouraged.

China agreed with Australia, noting that the requirement may exclude many digital economy firms that are changing rapidly. Also, given the number of recent changes to the GEO Rules of Procedure, it may be useful to review the full document to ensure it flows logically in all areas.

The European Commission thanked the GRASS subgroup and noted that this represented a significant precedent for GEO in that it was the first time that the GEO Plenary delegated to the Executive Committee the authority to approve final changes to the Rules of Procedure. Regarding the requirement for two years of prior involvement, the Commission recommended that the proposal be accepted as is, while monitoring the uptake. Changing the agreement at this stage could undermine the support of GEO Members that participated in the subgroup.

Australia stated that they don't want to reopen the discussion, but asked that the Secretariat track interactions with organizations to determine whether the two-year requirement becomes an issue.

Outcome: The Executive Committee thanked members of the GRASS subgroup for their efforts in reaching a consensus on this difficult issue. The Executive Committee approved the proposed changes to the Rules of Procedure, with the exception of changes related to intellectual property. The revised Rules of Procedure will take immediate effect.

Action 47.8: The Secretariat to publish the revised Rules of Procedure and the announcement of the creation of the GEO Associate category on the GEO website.

Action 47.9: The Secretariat to bring forward the proposed changes to the GEO Rules of Procedure related to intellectual property for Executive Committee approval. **Due: 48th Executive Committee meeting.**

Action 47.10: The Secretariat to track organizations interested in GEO Associate status but did not meet the criteria. **Due: 49th Executive Committee meeting.**

7.2 Report of the Subgroup on Participating Organizations (Presentation by IEEE)

Rene Garello (IEEE) presented the report on behalf of the subgroup. Executive Committee members were reminded that this subgroup was created to address a perception that there were many Participating Organizations (POs) that are no longer active in GEO. It was noted that GEO currently has 127 POs, but a previous analysis presented at the 46th Executive Committee meeting identified current GEO Work Programme involvement of 100 of these. Since that initial analysis, involvement in GEO other than through the Work Programme was identified for an additional 7 POs. Thus, there are 20 POs for which no current GEO involvement has been yet identified. The Secretariat will contact each of the 20 POs to confirm that the contact information for the organization is up to date and then to invite discussion on future mutually beneficial collaboration. If no response is received or the organization no longer wishes to remain as a GEO PO, then it will be removed from the list of POs.

The United States remarked that communications regarding the GEO Associate category should not suggest that it is an inferior level, but is a different category of organizations.

Italy stated that removal of a PO should only occur following a clear exchange between them and the Secretariat.

Outcome: The Executive Committee thanked the subgroup members for their analysis and recommendations.

If it is determined through direct communication between the Secretariat and an organization that there is no longer interest in their continuing as a PO, then the organization will be removed from the list of GEO POs.

Action 47.11: The Secretariat to follow up with the approximately 20 organizations for which no current GEO involvement has been identified. A list of organizations that cannot be reached will be provided to Executive Committee members for review and possible contact. **Due: 48th Executive Committee meeting.**

Action 47.12: The Subgroup on Participating Organizations to review whether changes to the GEO Rules of Procedure are needed to reflect the requirement of active contributions to GEO. **Due: 48th Executive Committee meeting.**

7.3 Review of Requests for Participating Organization Status (Document 47.14 – for decision)

Patricia Geddes presented one application for Participating Organization Status, this being from the World Food Programme. It was noted that the World Food Programme

is the food-assistance branch of the United Nations and is the world's largest humanitarian organization. It contributes to the GEOGLAM Crop Monitor by providing monthly inputs for Central America and most of Africa and is a regular user of Earth observations in its preparation and response to major emergencies.

Outcome: The Executive Committee approved the application from the World Food Programme.

8 ANY OTHER BUSINESS AND REVIEW OF ACTION ITEMS

8.1 Any Other Business

Paul Becker announced that would be leaving the GEO community after ten years of involvement. Executive Committee members thanked him for his contributions.

Italy drew attention to the planned launch of the PRISMA Earth observation satellite on 22 March.

8.2 Review of Action Items

The Executive Committee reviewed and approved the Outcomes and Action Items from the meeting.

8.3 Closing Remarks

China observed that GEO is facing a challenging period of increasing demand for Earth observations and the value that GEO can provide. China expressed their appreciation for the contributions of all involved in GEO.

The United States noted that there are quite a few issues in flux at present; many things seem to be changing within GEO. Many weighty matters were considered during the meeting, including the Secretariat Concept of Operations and the Strategy for a Results Oriented GEOSS. While it is important to have a vision, one must also have a way to connect with the existing community and bring them along. GEO needs to continue to perform while it changes. It was noted that the Programme Board is showing its ability to add value and it is expected that the GEO Work Programme will be of greater quality in its next iteration. There is a lot of work required to get to this point in the planning for the Ministerial Summit, but Executive Committee members now need to do the work to get their ministers and senior officials to attend.

The European Commission thanked the Lead Co-chair for the smooth chairing of the meeting and for the preparations. It is essential that the 'old GEO' be able to work with the 'new GEO'. Need to ensure that the vision is connected with the existing community. Excellent collaboration was demonstrated before and during the meeting, which led to very good conclusions to the meeting.

The Secretariat Director thanked all Executive Committee members on behalf of the Secretariat for their efforts in contributing to GEO and the guidance they have provided. He also thanked the Secretariat staff for the good preparations, the substantive documents, and their quick responses. Mr Camara indicated that he had

received important guidance from the Executive Committee and that he was committed to building the new GEO consistent with the old.

The Lead Co-chair thanked members for their participation in the meeting and thanked the Secretariat for its preparations. He noted that GEO is in an interesting space of transition. Things are moving faster, technology evolves and GEO needs to look as an organization to how it can best be of service to the users. The balance is to ensure that, as we go on this journey, that we walk together.

The Co-Chairs thanked all participants and thanked the Lead Co-Chair for a well-managed meeting.

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