

Report
41st Executive Committee Meeting
Washington, D.C., U.S.A, 24 October 2017

As accepted at the 43rd Executive Committee Meeting.

This document is submitted to the Executive Committee for decision.

This document consists of :

- *Part I: Executive Summary; and*
- *Part II: Full Report.*

PART I
Executive Summary

Chair: Robert-Jan Smits, European Commission.

1 GENERAL BUSINESS

1.1 Welcome from Lead Co-Chair and Co-Chairs

- Departing Executive Committee Members Colombia, France, Mexico and Senegal were thanked;
- The contributions of Mr Philemon Mjwara as South Africa Co-Chair for many years were recognized.

1.2 Adoption of Agenda (Document 1 – for decision)

- The 41st Executive Committee agenda was adopted as distributed.

1.3 Draft Report of the 40th Executive Committee Meeting (Document 2 – for decision)

- The report of the 40th Executive Committee Meeting (Geneva, Switzerland, 11–12 July 2017) was approved as distributed.

1.4 Review of Actions from Previous Meetings (Document 3 – for decision)

- The Executive Committee approved the closing of all Actions from the 40th Executive Committee meeting, pending discussion of referenced documents;

- The Lead Co-Chair expressed his appreciation for the progress achieved on the various items, in particular, with the communications toolkit.

1.5 Update on Secretariat Activities (Document 4 – for information)

- The Executive Committee took note of the Secretariat Operations Report;
- The Lead Co-Chair reiterated the importance of having the priorities of the Programme Board and the Secretariat aligned with the strategic orientation given by the Executive Committee.

1.6 Process for Applications for Participating Organizations (Document 5 – for decision)

- The Executive Committee endorsed the new timeline for review of Participating Organization applications, as proposed by the Secretariat, noting that there was no change to the criteria for applicants;
- The Executive Committee approved the applications pending from the 40th Session, namely Community Surface Dynamics Modeling Systems (CSDMS) and World Resources Institute (WRI) to be GEO Participating Organizations.

1.7 Review of Slate of 2018 GEO Programme Board (Preparation of Plenary Document GEO-XIV-5.10) (Document 6 – for decision)

- The Executive Committee adopted the Secretariat recommendations for the 2018 Programme Board membership.

Action 41.1: Secretariat to include the following change to the Rules of Procedure in the Plenary document GEO-XIV-14.3:

1.4.6 If a member has not participated in 2 consecutive Programme Board meetings and has not been active in sub-groups, their term can be terminated early by the Executive Committee on advice from Programme Board Co-chairs. (revised from 3)

2 STRATEGIC OUTLOOK

2.1 Review of Lead Co-Chair priorities and expectations from 2017 – Lead Co-Chair review and Executive Committee Discussion

- The Executive Committee thanked the presenters and, in particular, thanked Mr Haigh for his work on the Programme Board.

Action 40.2: Programme Board to prepare recommendations for how the issues identified in Mr Haigh's presentation would be addressed. **Due: 22 February 2018.**

2.2 Sustainable funding for the GEO Trust Fund (update and further discussion)

- This item was deferred to the discussion of the related Plenary document under item 3.2.

3 REVIEW OF PLENARY DOCUMENTS

3.1 Review of Plenary Proceedings and Documents

- The Executive Committee endorsed all of the documents for presentation to Plenary;
- Executive Committee also requested that guidance regarding the Programme Board review process be given to those making interventions from the floor at Plenary to propose new Work Programme Initiatives.

3.2 Report of the Budget Working Group

- The Executive Committee recommended that Plenary adopt the proposed 2018 budget, noting income and expenditure amounts, and asked that Member and Participating Organization pledges be publicly announced at Plenary.

Action 41.3: The Secretariat to propose the following addition to the Rules of Procedure under Annex D, Procedures for the Utilization of the Fund:

3. In the event that all pledged contributions are received, additional contributions, unless otherwise specified by the donor, or authorized to be expended by the Executive Committee, will be carried forward to the budget for the following calendar year;

4 ANY OTHER BUSINESS

- The Executive Committee thanked Mr Robert-Jan Smits and the European Commission for their leadership in 2017.

5 SUMMARY OF ACTION ITEMS

- The Executive Committee reviewed and approved the list of meeting Outcomes and new Action items.

PART II

Full Report

Tuesday 24 October 2017

Meeting convened at 10:00

Chair: Robert-Jan Smits, European Commission.

1 GENERAL BUSINESS

1.1 Welcome from Lead Co-Chair and Co-Chairs

Mr Philemon Mjwara, South Africa Co-Chair, expressed sincere thanks to the United States for hosting the Executive Committee meetings and Plenary and thanked the Secretariat for the meeting preparation. He noted that the meeting just prior to Plenary is usually devoted to review of the Plenary documents. Mr Mjwara observed that GEO was making progress on its Engagement Strategy, especially regarding with whom GEO intended to engage and on what matters. He stated that the Executive Committee needs to continue its discussions on the priorities. He also noted that the Executive Committee would be looking at progress and at Key Performance Indicators (KPIs), especially at an early stage of the new Work Programme. He reminded Executive Committee Members that this would be his last Executive Committee meeting as his role as South African Principal and Co-Chair was being transferred to Mr Mmboneni Muofhe. In doing so, however, he emphasized that South Africa remains committed to GEO. He concluded by thanking Mr Robert-Jan Smits for his role as inaugural Lead Co-Chair, noting that Mr Smits had invested a great deal of his personal time in the role and that the Executive Committee was grateful for his leadership.

Mr Pengde Li, on behalf of China Co-Chair Huang Wei, thanked Executive Committee Members and the Secretariat for organizing the meetings and remarked that he was glad to meet in Washington D.C. He noted that China had made great progress on Earth observations in 2017, including the launches of the first Fengyun-4 meteorological satellite, the TanSat satellite and several commercial satellites. A number of Earth observation data sets were also made freely available to the public. Mr Li announced that China will increase its contribution to the GEO Trust Fund in 2018 and will also increase its participation in various GEO activities. He also stated that the China plan for Earth observations would be released later that day, including deliverables for how China intends to implement GEO at the national and regional levels. He also stated that China would continue to collaborate with other Members through Asia-Oceania GEOSS and also through their leadership in the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM). He concluded by noting that China will host the first UN World Geospatial Information Congress next year in Hangzhou.

Mr Stephen Volz, United States Co-Chair, welcomed Members to Washington and expressed his view that the Plenary looked like it would be very productive. He thanked Mr Mjwara for his work with GEO over the years, both as representative of the South African government, but also his personal commitment. He also acknowledged that this would be the last Executive Committee meeting for Colombia, France, Mexico and Senegal and thanked them all for their time and service. He noted that there would be a focus on delivery and metrics over the next few days, and that there was an increased focus on expansion of services over expansion of membership; the latter being expected to

result if GEO expands its services and activities. He concluded by stating that he was looking forward to a successful Executive Committee meeting and Plenary.

Mr Robert-Jan Smits, European Commission, Lead Co-Chair, thanked the Members who are leaving and also thanked the Secretariat for its preparations for the Executive Committee meeting. He indicated that he would be providing a more complete statement under item 2.1 in the Agenda.

Ms Barbara Ryan, Secretariat Director, thanked the United States and Secretariat staff for their work in preparing for the Plenary and noted that it was a nice partnership. She also provided her personal appreciation to Mr Mjwara for his many years of contributions to GEO.

Outcomes: Departing Executive Committee Members Colombia, France, Mexico and Senegal were thanked. The contributions of Mr Philemon Mjwara as South Africa Co-Chair for many years were recognized.

1.2 Adoption of Agenda (Document 1 – for decision)

Outcome: The 41st Executive Committee agenda was adopted as distributed.

1.3 Draft Report of the 40th Executive Committee Meeting (Document 2 – for decision)

Outcome: The report of the 40th Executive Committee Meeting (Geneva, Switzerland, 11–12 July 2017) was approved as distributed.

1.4 Review of Actions from Previous Meetings (Document 3 – for decision)

The Secretariat Director reviewed the responses to each of the Actions from the previous meeting. Actions 40.2, 40.4, 40.5, and 40.6 had been completed as described in the document which was distributed prior to the meeting. Action 40.1 was since completed with the distribution of Document 2 for the 42nd Executive Committee meeting. Action 40.3 has been completed, as all Caucuses submitted their changes to the Executive Committee slate. On Action 40.7, the Secretariat Director thanked China and Australia for their representation of GEO at various events. On Action 40.8, the Secretariat Director thanked Australia for reporting back to the Secretariat on the outcomes of the meeting at which they represented GEO. She noted that the role of Members in representing GEO at events may require further discussion at Executive Committee meetings in 2018, as Germany pointed out some challenges with this approach.

Outcome: The Executive Committee approved the closing of all Actions from the 40th Executive Committee meeting, pending discussion of referenced documents. The Lead Co-Chair expressed his appreciation for the progress achieved on the various items, in particular, with the communications toolkit.

1.5 Update on Secretariat Activities (Document 4 – for information)

The Secretariat Director informed the Executive Committee that no presentation had been prepared for this item due to the preparations for Plenary; she referred Members to the distributed Secretariat Operations Report. The Lead Co-Chair complimented the Secretariat on the format of the report, observing that it was easier to follow. No additional comments or questions were raised by Members regarding the Report.

Outcome: The Executive Committee took note of the Secretariat Operations Report. The Lead Co-Chair reiterated the importance of having the priorities of the Programme Board and the Secretariat aligned with the strategic orientation given by the Executive Committee.

1.6 Process for Applications for Participating Organizations (Document 5 – for decision)

The Lead Co-Chair introduced the item by explaining that the timelines for reviewing applications for Participating Organization status within GEO were proposed to be adjusted to allow more time and to permit Members to raise any issues.

The Secretariat Director explained each of the steps in the process, with specific reference to the dates that would apply for the next Executive Committee meeting on 8–9 March 2018. She noted that the Secretariat would continue to review applications against the criteria in the Rules of Procedure; it was not being proposed to revise these criteria at this time. The Secretariat would then send all applications meeting those criteria to all Executive Committee Members eight weeks prior to the Executive Committee meeting. Members would need to inform the Secretariat no later than six weeks prior to the Executive Committee meeting if they had any concerns and the nature of those concerns. The Secretariat would then work informally with the applicants, where concerns had been raised, to address the concerns identified.

The Lead Co-Chair thanked the Secretariat for developing the revised timeline to avoid misunderstandings that had occurred in the past.

The United States noted that the criteria in the Rules of Procedure had not changed. The changes to the process were intended to allow for more time to properly review the applications.

China stated that they were satisfied with the modification to the timeline, which would allow for a better assessment against the criteria. China also expressed a concern that, although GEO is an intergovernmental organization, more and more Participating Organizations are joining, which could lead to GEO growing too large and becoming inefficient. It may be necessary to introduce a filter to restrict the kinds of organizations which may join.

The Secretariat Director noted that the implementation of the recommendations of the *Strategic Plan 2016-2025: Implementing GEOSS* have had the effect of broadening the potential range of organizations, such as International Development Agencies and not-for-profit consortia of Private Sector companies, that can become Participating Organizations. The final decision to admit Participating Organizations remains with the Executive Committee.

The Lead Co-Chair remarked that Executive Committee Members should raise their concerns if they believe that the criteria for Participating Organization status are not met by applicants.

Outcomes: The Executive Committee endorsed the new timeline for review of Participating Organization applications, as proposed by the Secretariat, noting that there was no change to the criteria for applicants.

The Secretariat Director reminded the Executive Committee that two applicants (Community Surface Dynamics Modeling Systems and World Resources Institute) had been approved conditionally at the previous 40th Session of the Executive Committee meeting, pending resolution of concerns raised about their application. She recommended that, as the concerns have now been resolved, that the Executive Committee approve these two applications so that the next Executive Committee could begin with a clean slate.

Outcome: The Executive Committee approved the applications of Community Surface Dynamics Modeling Systems and World Resources Institute to be GEO Participating Organizations.

1.7 Review of Slate of 2018 GEO Programme Board (Preparation of Plenary Document GEO-XIV-5.10) (Document 6 – for decision)

Mr Douglas Cripe reviewed the existing requirements in the Rules of Procedure concerning term length. He informed the Executive Committee that eight nominations from Members had been received, four of which were for renewals and four of which were new applications. An additional ten nominations from Participating Organizations were received. Since the Rules for Procedure create a

ceiling of 32 Programme Board members, the question is how to obtain the best Programme Board, including consideration of past participation and of programmatic considerations. The Rules of Procedure contain a provision that Programme Board seats may be in jeopardy due to lack of active participation, which applied to two Members. In addition, the European Environment Agency has resigned their seat. The Secretariat recommended that four Participating Organizations be asked to relinquish their seats to make room for new nominees.

In response to a question whether the Participating Organizations that would be asked to step aside have been contacted, Mr Cripe responded that the International Council for Science (ICSU) had been contacted, but not the others. The Secretariat Director further clarified that the Secretariat did not contact the organizations so as not to pre-empt a decision by the Executive Committee.

Mr Ivan Deloatch, Programme Board Co-Chair, added that the Programme Board agreed with the Secretariat recommendations with respect to the two Members that had not attended meetings. He noted that there were overlaps in terms of expertise between existing and new Participating Organization members of Programme Board, as well as issues of past participation. Overall, Programme Board was in agreement with the Secretariat recommendations.

France expressed support to the idea that if members are not able to participate, they should be replaced. Clarification was requested regarding the number of missed meetings that would trigger replacement. A suggestion was made that action be taken after two absences.

The IEEE observed that, according to the Rules of Procedure, a Programme Board member may be removed after three missed meetings. A question was raised as to whether there was a limit to the maximum number of terms that a member could hold on Programme Board.

Mexico stated that it was important to understand the reasons for the absences, whether there was a systematic issue or just a lack of interest. There should be follow-up after the first absence. It is important that participation not be discouraged, especially from developing countries.

The United Kingdom inquired as to the nature of the “programmatic considerations” that had been mentioned earlier. Mr Cripe responded that, for example, ICSU had previously put forward World Data System (WDS) to take its place at the meeting. WDS is now coming into Programme Board as a nominee and so ICSU and WDS may share this role. Mr Cripe also pointed out that participation in Programme Board meetings is offered via remote participation, such as Webex, if travel is not possible. Several members avail themselves of this option in each meeting. Regarding the question of term limits, he noted that current members of Programme Board will all serve until 2020. There is no maximum number of terms.

The Secretariat Director observed that Spain and Uganda had clearly met the criteria for removal from Programme Board. The issue with the Participating Organizations is ultimately that three ocean-related organizations were being lost and that it was necessary to retain at least one.

The Lead Co-Chair asked Executive Committee Members what they thought about the proposal from France that action be taken following two consecutive absences from Programme Board.

Mr Deloatch agreed with the proposal from France. He stated that it was important that Members have support from their home organization to participate in meetings.

Mexico asked whether there should be a filter to avoid a situation where some Members have too many terms, thereby limiting participation from new Members. Use of a lottery to select Members was suggested.

Mr Cripe stated that the Secretariat did not recommend use of a lottery as a means of selecting Programme Board members as it was not able to include consideration of programmatic or other factors that should be taken into account in the composition of the Programme Board. The Secretariat Director added that the lottery was used only to assign term lengths for the first Programme Board and had no further role.

Outcome: The Executive Committee adopted the Secretariat recommendations for the 2018 Programme Board membership.

Action 41.1: Secretariat to include the following change to the Rules of Procedure in the Plenary document GEO-XIV-14.3:

- 1.4.7 If a member has not participated in 2 consecutive Programme Board meetings and has not been active in sub-groups, their term can be terminated early by the Executive Committee on advice from Programme Board Co-chairs. (revised from 3)*

2 STRATEGIC OUTLOOK

2.1 Review of Lead Co-Chair priorities and expectations from 2017 – Lead Co-Chair review and Executive Committee Discussion

The Lead Co-Chair introduced the item by reviewing a presentation given at the 38th Executive Committee meeting in March 2017 in which his priorities as Lead Co-Chair were introduced, as well as the expectations of the Executive Committee for the Programme Board were outlined. Mr Smits reminded Executive Committee Members that the position of Lead Co-Chair had been introduced to reinforce the strategic role of the Executive Committee, strengthen leadership within GEO, and to provide additional support and direction to the Secretariat. He stated that he found the year to be a rich experience and that he had learned a lot during this time. In particular, he mentioned that the process of reviewing Executive Committee and Plenary documents prior to distribution meant that the documents now came from the Lead Co-Chair and not just from the Secretariat.

The Lead Co-Chair then introduced a series of presentations on progress on selected 2017 priorities.

2.1.1 Implementation of the Engagement Strategy (oral progress report by the GEO Secretariat)

Mr Steven Ramage provided an update on the implementation of the GEO Engagement Strategy. He mentioned that there is also an updated Engagement Plan, although the focus at this meeting would be on presenting engagement activities as a six-step process. Mr Ramage explained the six generic steps of GEO's Engagement Strategy and how they are applied in the context of the three engagement priorities. Key events for the next eight months were identified and a brief description was given of the new GEO Communications Plan and the revised Engagement Plan. It was proposed that the Secretariat report to the Executive Committee at each meeting on engagement within each region. The presentation concluded with reference to early work beginning in 2018 on the two engagement priorities which were deferred in 2016: ecosystem accounting and urban resilience.

South Africa thanked Mr Ramage for his work on engagement, but noted that as you climb one hill, you see many others. It is clear now who GEO is trying to engage, as well as the topics of that engagement, but other aspects still need to be explained. On seeking Observer status under the United Nations Framework Convention on Climate Change (UN FCCC), he noted that GEO has still not brought people on Programme Board who are in UN FCCC. What does GEO bring to UN FCCC as an Observer? This is not about the use of Earth observations, but about what GEO itself can contribute as an organization.

Mexico stated that they have been involved in many of the events mentioned as part of the Engagement Strategy, for example, on the disasters priority. GEO has brought Earth observations very much into the discussion at the meetings where it was represented. GEO has made prominent and significant contributions on Sustainable Development Goals (SDGs) through the involvement of many partners, such as NASA, and also the involvement of Mr William Sonntag of the Secretariat. This had had much impact. GEO participation in the upcoming Ninth Meeting of the Statistical Conference of the Americas was also highlighted, along with the Fifth High Level Forum on UN Global Geospatial Information Management (UN-GGIM) in Mexico City.

Mr Ramage added that a joint mailing to all statistical and mapping agencies of UN-GGIM Members States was sent by GEO and the UN-GGIM with a co-signed letter from Barbara Ryan and Mr Stefan Schweinfest of the United Nations Statistical Division. Several GEO Members, including Australia, China, Mexico and USA, are active in UN-GGIM and there is work underway on a strategic document to guide long-term collaboration between GEO and the UN-GGIM. Future collaboration could include, for example, greater alignment between UN-GGIM Americas and AmeriGEOSS, as well as alignment across the GEO Disasters priority actions and the UN-GGIM Working Group on Disasters. Mr Ramage mentioned that he would share this strategy piece with Executive Committee Members at the next meeting in March 2018 (or beforehand if requested).

The Secretariat Director responded to points raised by South Africa by stating that several UN Conventions have now joined GEO as Participating Organizations. These Conventions see GEO as having a convening power in bringing together Participating Organizations as well as national Members, which the Conventions are less able to do. While GEO's legal status may be causing some difficulties with the UN FCCC, it does not for other Conventions. She stated that there is starting to be a "pull" from the Conventions who are interested in GEO's connections to a broad community. There is a need now for GEO Principals to engage the Principals of other Conventions within their countries to advocate for recognition of GEO's role.

Finland commented that it would be useful to explain in the documents where GEO is seeking recognition. It is not enough to know which issues we are working on, but also what we are seeking. Members would then be in a better position to help GEO achieve these objectives.

The Secretariat Director clarified that more details on climate engagement would be available in 2018. She noted that it will take support from the delegations of all GEO Members to enable GEO to join UN FCCC as an Observer.

Mr Ramage noted that there will also be priority given to mercury monitoring and the Minamata Convention in 2018 as a result of the work of Nicola Pirrone, the Italian GEO Principal and following a meeting Mr Ramage had with the Executive Director of UN Environment, Mr Erik Solheim.

Japan announced that the Science Council of Japan will host, together with ICSU and UNISDR, an event on disaster risk reduction. Strong Earth observations content is expected as part of this event. An official statement would be forthcoming.

The Lead Co-Chair noted the information provided and thanked the Secretariat for the great work. He reiterated the view that engagement is the responsibility of all GEO Members.

2.1.2 Liaising with the GEO Programme Board (discussion with Programme Board co-chairs, reviewing 2017)

Mr Tim Haigh presented the item by teleconference, which was centred on his reflections about his role as Programme Board Co-Chair and on the broader role of the Programme Board.

Mr Haigh discussed results achieved since the creation of the Programme Board, key accomplishments, risks for the future, and engagement priorities, particularly the SDGs. He stated his view that the Programme Board has strengthened GEO as was intended by the Implementation Plan Working Group (IPWG). It is balancing flexibility and responsiveness with continuity. It is also strengthening engagement. But where it has not been entirely successful, in his view, was perhaps in that it has yet to achieve the right balance between expert advice and strategic advice. It is also trying to find the right balance between Members and Participating Organizations and between the different interests of the various Members.

In reviewing the Work Programme activities, Mr Haigh stated that the Programme Board was applying the established criteria for the Flagships, Initiatives and Community Activities; it was not just accepting everything proposed. It provided guidance in a supportive, not competitive, way. The result was improved branding for GEO and increased community buy-in. The Initiatives themselves have viewed this as co-development with the Programme Board.

As for the Programme Board itself, Mr Haigh saw the members as engaged, informed and having a sense of ownership of Board operations. This is especially true, in his view, of the Participating Organizations. It was an accomplishment to have put this in place.

Turning to risks, Mr Haigh observed that there is a need for turn-over within the Programme Board to bring on new capacities, but this needs to be managed to ensure against losing key knowledge and loss of institutional memory. It is important that discussions not repeat the past, but move on. He also stated that he sees a potential risk in the development of KPIs. While the Programme Board is very supportive of KPIs, there may be a risk from seeking too comprehensive a picture. To mitigate risk, he recommended taking a lean approach, focusing on a few elements, and ensuring that the KPIs are useful to GEO processes. The third risk identified was of not communicating GEO's added value sufficiently. He observed that there has been a substantial advance in promoting GEO and making it better understood, but that there is still more work needed with respect to the value of specific products.

On the engagement priorities, Mr Haigh remarked that the support to the SDGs has been a key milestone. The Programme Board, in his view, did a good job in moving this forward. However, he cautioned that the SDGs are not only about the indicators; there is more added value from GEO in supporting actions toward the Goals and Targets themselves. He then discussed three examples to illustrate how GEO can provide information to countries to help them meet the Targets. Mr Haigh stated that Programme Board had not done enough to communicate this message across the GEO community. While the Programme Board has done well in identifying where the Work Programme contributes to SDG indicators, it hasn't done as well at linking activities to potential users, especially where these users may not yet be clear.

Finally, Mr Haigh observed that he was able to contribute to the meeting without travelling to Washington. He stated his belief that, as GEO is about technology, there is a need to strengthen the ability to participate in GEO even if it is not possible to travel to meetings.

Mr Ivan Deloatch, Programme Board co-chair, congratulated Mr Haigh for his wonderful job of leading the Programme Board, which built on his work with the IPWG. He stated that it was good to raise attention to understanding where GEO is and how it can make a difference. He observed that there was a good working relationship between the Executive Committee, the Programme Board and the Secretariat during the SDG process, but that there are some lessons learned for the future.

The United States thanked Mr Haigh for the excellent points. A document for the Executive Committee was requested which would describe how these issues would be addressed in Programme Board operations and other adjustments to processes.

South Africa suggested, in relation to the point about issues and decisions being raised again, that the Programme Board should examine how previous recommendations are being addressed, such as those arising from evaluations.

The Secretariat Director noted that the EO4SDGs Initiative is already responding to issues identified in the presentation concerning GEOs support to SDGs. It was proposed that Laurence Friedl be invited to a future Executive Committee meeting to provide an update.

2.1.3 Commercial Sector Engagement (review of achievements and preparation for Executive Committee 42nd Meeting)

Mr Steven Ramage provided an update on progress on engaging the commercial sector. A key success since the previous Executive Committee meeting was the production by BluOrange of a series of 10 documentary videos on Earth observations, in partnership with the Secretariat and commercial sector participants. The videos were produced with the support of commercial sector sponsors and have all been made available on the GEO website and YouTube channel. Several commercial sector firms have expressed interest in becoming more involved with GEO since their involvement in the videos.

Mr Ramage also described GEO's increasing engagement with the Private Sector Network (PSN) of the UN-GGIM, including an invitation to the PSN to send several of its executive members to attend the 42nd Executive Committee meeting. A joint document with UN-GGIM on broader strategic engagement across thematic areas and in regional activities is also in development.

Mr Ramage drew attention to the proposed changes to the Rules of Procedure, which would be discussed at Plenary. The previous "Guidelines" for working with the commercial sector are proposed to be replaced by a set of "Rules of Engagement" intended to clarify expectations among all stakeholders. He also noted the various ways in which commercial sector organizations were participating in Plenary week activities by hosting social events, participating in GEO side events, participating in panel discussions, and as sponsors.

The United States added that there would be a focused discussion in the morning session of the 42nd Executive Committee meeting to prepare for the meeting with commercial sector representatives. This discussion would focus on what GEO wants to realize from the meeting. The success in obtaining sponsorships for Plenary was noted and it was suggested that GEO be more open to organizations of different sizes.

2.1.4 Key Performance Indicators (oral progress report by the GEO Secretariat)

Mr Craig Larlee provided an update on the status of development of GEO monitoring, including development of Key Performance Indicators (KPIs). Of the nine indicator topics that were intended to be covered in 2017, preliminary data are available for seven. For those indicators where the data are being gathered from Work Programme activities, a second round of data collection will be undertaken to complete the initial baseline. Data are currently available regarding usage of the GEOSS Portal and resources brokered by the GEOSS Common Infrastructure (GCI), although further work is needed to ensure that the metrics are reliable and useful. Data collection is underway for a survey of national data sharing contact points, which was developed by the Data Sharing Working Group. Results of this survey are expected in November. On the last indicator topic, SDG engagement, metrics are still in development and so reporting will continue to be qualitative for the time being.

Mr Larlee then provided some graphs of preliminary results regarding contributions to the GEO Work Programme, involvement of the commercial sector, distribution of individual participants in the GEO Work Programme, types of end-user products and services developed by GEO Work Programme activities, methods of user engagement, distribution of user engagement and capacity building activities, sources of resources brokered to the GCI, and usage of the GEOSS Portal. He emphasized that the results were illustrative only, as the data on which they were based were as yet incomplete. The results were being provided to the Executive Committee to give a sense of the kinds of information that was emerging from the monitoring process and how this information might be used by the Executive Committee and the Programme Board. Mr Larlee suggested that feedback from each of these groups would help shape the selection of the KPIs. A more detailed and complete report would be provided to the Executive Committee and to the Programme Board at their first meetings in 2018.

Finland stated that the process of considering the indicator results was good for the Executive Committee. In viewing the graphs, one starts asking why things are the way they are. This is the kind of thing that the Executive Committee should be thinking about. Why, for example, did one Flagship not provide data? It was also suggested that the commercial sector, particularly small enterprises, be engaged for assistance in automating the data collection process. Regarding portal usage, it was expected that not many people would use the GEOSS portal to obtain data; it is more likely a first point for a search. GEO should, however, look at what search terms are being used and where users are coming from. Also, why are there spikes in searches at certain dates? Can we identify what issues might have led to these spikes? Does GEO have data to address these topics?

CEOS remarked that a key theme at the recent CEOS Plenary looked at how indicators should change to reflect the move to big data. It is no longer meaningful to look at data downloads as an indicator due to the shift to cloud computing. Our focus should move toward how data are being used.

The Lead Co-Chair noted that KPIs will be a continuing item on the agenda for future Executive Committee meetings.

Outcomes: The Executive Committee thanked the presenters and, in particular, thanked Mr Haigh for his work on the Programme Board.

Action 40.2: Programme Board to prepare recommendations for how the issues identified in Mr Haigh's presentation would be addressed. **Due: 22 February 2018.**

2.2 Sustainable funding for the GEO Trust Fund (update and further discussion)

This item was deferred to the discussion of the related Plenary document under item 3.2.

3 REVIEW OF PLENARY DOCUMENTS

3.1 Review of Plenary Proceedings and Documents

3.1.1 Approval of GEO-XIV Agenda

Australia requested that approval of the agenda be held off until the budget document has been discussed. The budget comes up at several points in the agenda, which may not be efficient. The Executive Committee needs to determine how to handle new contributions to the Trust Fund that are made during the meeting and which may affect the budget.

The Lead Co-Chair agreed to return to this item at a later point in the meeting.

3.1.2 Approval of Report of GEO-XIII

No comments raised concerning the document.

3.1.3 GEO Highlights 2016-2017

The Secretariat Director recognized the efforts that went into production of the document and noted the appealing graphics and presentation.

No other comments noted.

3.1.4 2017-2019 GEO Work Programme Update

Mr Douglas Cripe provided a summary of the changes to the Work Programme since 2016.

CEOS stated that the quality of the document is a testament to the process of review by the Programme Board. The importance of this process should be made clear to Plenary in the event that some propose new initiatives at the Plenary meeting.

The Lead Co-Chair agreed that it is important to consider how to handle this issue.

The Secretariat Director stated that it was expected that the UN Convention to Combat Desertification would propose a new initiative at Plenary to request assistance from the GEO community, recognizing the value GEO has to offer. It is important that we do not lose sight of the benefit of working with them and to welcome new participants. Those outside of GEO may not be familiar with our procedures and it is up to us to guide them.

3.1.5 Update on Legal Status of GEO

The Secretariat Director stated that there were no surprises and that the presentation would be consistent with the information previously provided to the Executive Committee.

No comments from Executive Committee Members.

3.1.6 Update on GEO Rules of Procedure

The Secretariat Director drew attention to the changes, which were shown underlined in red in the document. The biggest change was the replacement of Annex C regarding the commercial sector. Other changes are quite minor.

Outcomes: The Executive Committee endorsed all of the documents for presentation to Plenary. The Executive Committee also requested that guidance regarding the Programme Board review process be given to those making interventions from the floor at Plenary to propose new Work Programme Initiatives.

3.2 Report of the Budget Working Group

Mr Stuart Minchin presented the item on behalf of the Budget Working Group. It was noted that there are three separate documents issued from the Budget Working Group, although there are only two items on the Plenary agenda; the Interim Report on Income and Expenditure will not be discussed at Plenary and was distributed for information only.

Referring to the proposed 2018 budget, Mr Minchin drew attention to the distinction between core budget activities, based on functions identified in the 2016-2025 Strategic Plan, and activities supported by earmarked funds, that is, funds contributed to support specific activities other than those identified as core. He said that it was important to note that the sustainable budget on which the indicative scale was based only accounted for core activities and thus contributions of earmarked funds should be considered as over-and-above the equitable share for each Member as calculated in the indicative scale. While contributions to the Trust Fund remain voluntary, the operations of the GEO Secretariat will only be sustainable if Members contribute their equitable share of the sustainable budget.

On the specific proposed amount of the 2018 budget, a total expenditure of CHF 4.8M was recommended, based on expected contributions of CHF 3.2M, including in-kind contributions and expenditures. It was also recommended that the Executive Committee be able to approve an increase to the budget in the event that contributions at Plenary or during the year exceed the amount anticipated in the budget.

In response to the recommendation regarding the Executive Committee being able to increase the budget amount, the United States stated that they agreed with the proposal.

Mr Minchin then continued with a second presentation regarding sustained resourcing for GEO. The presentation outlined several arguments that could be used by GEO Principals in seeking additional funding for the GEO Trust Fund. These included the value of broad, open data sharing; the efficiency of GEO's convening power, incubation of globally-relevant Flagships, and the role of GEO in stimulating economic activity. On the latter point, Mr Minchin drew attention to several studies and examples of economic value generated or savings realized through the availability of earth observations and geospatial data. He then reiterated his earlier message that the sustainability of GEO depends not only on contributions to the Work Programme, but also on support to the Trust Fund. He drew attention to a recent decline in contributions over the past two years and how cash contributions did not come close to meeting the sustainable budget required by the Strategic Plan, even in the peak year of 2015. He then provided Members with several methods used successfully in the Australian context for increasing funding to the Trust Fund.

The Lead Co-Chair asked the Secretariat Director about the response from Members to the letter concerning the indicative scale.

The Secretariat Director stated that a total of eight responses were received, three of which were negative, with the other five stating that the request would be forwarded to the relevant Minister for decision.

CEOS proposed that there should be materials available to Members to help them make a strong case for GEO within their governments. CEOS also proposed that the Rules of Procedure be revised to allow the Executive Committee to increase spending if additional contributions were received, as the current wording suggested that this was not permitted.

The United States suggested that the focus be more directly on the additional benefit of investing in GEO. Open data will not go away because it is in the interests of all countries to keep it. The case for additional funding should explain what GEO would be able to do if it had more funds.

The United Kingdom added that the focus of the presentation was on cash rather than secondments; a secondment to the Secretariat for 2018 was announced. The probability of exceeding the expected contribution amount of CHF 3.2 M was also questioned.

The Lead Co-Chair stated that European Union Member States a decision would be taken this week whether the EC's contribution would be increased.

Mr Minchin responded that it was not clear what impact additional investment would have; more work would be needed to get to that point. The budget documents do provide detail on staff positions that are not being filled, but it is not clear what the specific outcomes of having those positions would be. That is where we need to get to in order to make the case. More broadly, the underlying issue is that only a minority of GEO Members contribute regularly to the Trust Fund; it would help greatly to have a few more countries contributing.

The Secretariat Director requested that Members announce their contributions to the Trust Fund at Plenary, even if the amount is the same as in previous years. In response to the impact of additional investment, she drew attention to the Secretariat Operations Report which shows vacancies in the coordination of Foundational Tasks. The impact is that the Secretariat has had to cut back on what it does because it doesn't have the minimum sustainable budget.

The Lead Co-Chair stated that the Executive Committee needs to formally agree on the proposed budget. He also proposed that, at the March 2018 meeting, the Executive Committee look at the “negative priorities”, that is, what work will not be done if there are insufficient funds.

Mr Minchin suggested that he could add an additional slide to highlight the activities that would not be performed without further funds. He also mentioned that the difference between the CHF 2.8M in 2017 contributions and the CHF 3.2M in the 2018 budget was due to expected increases in pledges from some countries, including Australia, China and the European Commission. The concern is whether new pledges will bring the total above CHF 3.2M.

Mr Minchin then presented a slide regarding the financial statements. He stated that the audit gave the Secretariat a clean bill of health and that the Budget Working Group commended the Secretariat for its good financial management in 2016. The small difference between the budgeted and spent amounts was due mainly to categorizations made by the World Meteorological Organization (WMO); this issue was rectified for 2017. He also noted that the audit no longer reports on findings related to broader WMO financial management.

The Lead Co-Chair concluded the session by stating that the chances were small that new contributions would require changes to the budget amount. He did not wish to send the message that the additional contributions this year would solve the sustainability problem. He also reiterated the view that the Executive Committee should decide on the negative priorities.

Outcomes: The Executive Committee recommended that Plenary adopt the proposed 2018 budget, noting income and expenditure amounts, and asked that Member and Participating Organization pledges be publicly announced at Plenary.

Action 41.3: The Secretariat to propose the following addition to the Rules of Procedure under Annex D, Procedures for the Utilization of the Fund:

3. In the event that all pledged contributions are received, additional contributions, unless otherwise specified by the donor, or authorized to be expended by the Executive Committee, will be carried forward to the budget for the following calendar year;

4 ANY OTHER BUSINESS

The United States thanked Mr Robert-Jan Smits and the European Commission for their leadership in 2017.

5 SUMMARY OF ACTION ITEMS

The Executive Committee reviewed and approved the list of meeting outcomes and new action items.

Meeting adjourned at 16:25.

41st GEO Executive Committee

List of Participants

China	
<p>Dr Zhang Songmei Deputy Director-General National Remote Sensing Center Ministry of Science and Technology of P.R. China Building No. 8A, Liulinguan Nanli Haidian District Beijing 100036 China</p>	<p>Fax: +86 10 588 81 167 songmei.zhang@nrsc.gov.cn</p>
<p>Mr Chi Zhang Acting Director National Remote Sensing Center Ministry of Science and Technology of P.R. China Building No 8a, Liulinguann Nanli Beijing 100036 China</p>	<p>Fax: +86 10 588 81 167 zhangchi@nrsc.gov.cn</p>
<p>Mr Zhang Jing Project Manager National Remote Sensing Center of China Ministry of Science and Technology P.R. China N° 8A, Liulinguan Nanli Haidian District Beijing China</p>	<p>Fax: +86 10 588 81 167 zhangjing@nrsc.gov.cn</p>
<p>Dr Li Pengde Vice-President China GEO, the Inter-ministerial Coordination Group Deputy Director-General National Administration of Surveying, Mapping and Geoinformation of China No.28, Lianhuachi West Road Haidian District, Beijing,10048, P.R. China</p>	<p>lipdgeo@sbsm.gov.cn lipd@sbsm.gov.cn</p>
<p>Dr Xinming Tang Deputy Director-General Satellite Surveying and Mapping Application Center National Administration of Surveying, Mapping and Geoinformation No.1 Baishengcun Haidian District Beijing 100048 China</p>	<p>tangxinming99@qq.com</p>

<p>Ms Ye Fanghong Senior Engineer, GEO China Secretariat Satellite Surveying and Mapping Application Center National Administration of Surveying, Mapping and Geoinformation (SASMAC,NASG) No.18, Baishengcun, Haidian District, Beijing,10048, P.R. China</p>	<p>yefanghong@nrsc.gov.cn</p>
<p>Dr.Zhou Xiang Division Director Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences No.9 Dengzhuang South Road Haidan District Beijing 100094 China</p>	<p>zhouxiang@radi.ac.cn</p>
<p>Prof. Li Xin Science Counselor Chinese Embassy in U.S. 305 International PI NW Washington, D. C. 20008 USA</p>	<p>lixin@lzb.ac.cn</p>
<p>Mr Zhang Huanzhao Second Secretary Chinese Embassy in U.S. 3505 International PI NW Washington, DC 20008 USA</p>	<p>zhanghz2016@gmail.com</p>
<p>European Commission</p>	
<p>Mr Robert-Jan Smits EC GEO Principal Director-General Directorate-General for Research and Innovation European Commission ORBN 03/136 1049 Brussels Belgium</p>	<p>Phone: + 32 229 63 296 robert-jan.smits@ec.europa.eu</p>
<p>Dr Jack Metthey EC GEO Principal Alternate Director European Commission DG Research & Innovation Directorate I Climate Action and Resource Efficiency CDMA 03/102 1049 Brussels Belgium</p>	<p>Phone: +32 229-68870 jack.metthey@ec.europa.eu</p>

<p>Mr Gilles Ollier Head of Sector Earth Observation European Commission DG Research & Innovation Unit I:4 Climate Action and Earth Observation Rue du Champ de Mars 21 CDMA 03/006 1049 Brussels Belgium</p>	<p>Phone: +32 2 29 56630 Fax: +32 2 29 50568 gilles.ollier@ec.europa.eu</p>
<p>Ms Jane Shiel EC GEO Co-Chair Representative Senior Policy Officer Earth Observation Sector Unit Climate Action and Earth Observation DG Research and Innovation European Commission CDMA 03/007 1049 Brussels Belgium</p>	<p>Phone: +32 2 296 2984 Fax: +32 2 29 50 568 jane.shiel@ec.europa.eu</p>
<p>South Africa</p>	
<p>Dr Philemon Mjwara Director General Department of Science and Technology Building 53 CSIR Meiring Naude Road Brummeria 0184 South Africa</p>	<p>Phone: +27 12 843 6815 Fax: +27 866 81 0006 phil.mjwara@dst.gov.za</p>
<p>Mr Mmboneni Muofhe Deputy Director General Science and Technology Department of Science and Technology Building 53 CSIR Meiring Naude Road Brummeria 0184 Private Bag X 894 0001 Pretoria South Africa</p>	<p>Phone: +27 12 843 6341 Cell: +27 82 907 9856 Fax: +27 86 681 0057 phil.mjwara@dst.gov.za</p>
<p>Ms Lerato Dube Director Earth Observation Space Science and Technology Department of Science and Technology Building 53 CSIR Scientia Campus Meiring Naude Road, Brumeria Pretoria 0184 South Africa</p>	<p>Phone: +2712 843 6867 / +27 21 8597310 Cell: +27848417281 / +27 71 85 97 370 Fax: +27862107065 lerato.senoko@dst.gov.za lerato.dube@dst.gov.za</p>

United States	
Mr Stephen Volz Assistant Administrator Department of Commerce The National Oceanic and Atmospheric Administration (NOAA) 1335 East West Highway, Bldg. SSMC1 20910-3283 Silver Spring United States	Phone: +1-301-713-3578 Fax: +1-301-713-1249 stephen.m.volz@noaa.gov
Ms Virginia Burkett USGS USA	virginia_burkett@usgs.gov
Ms Yana Gevorgyan Senior International Relations Specialist NOAA Satellite and Information Service Department of Commerce The National Oceanic and Atmospheric Administration (NOAA) 1335 East-West Highway Room 7317 20910 3226 Silver Spring United States	Phone: +1 301 713 70 54 yana.gevorgyan@noaa.gov
Mr John Matuszak Senior Policy Advisor OES/EQT U.S. Department of State United States	Phone: +1 202 647 9278 matuszakjm@state.gov
Mr Albert J. DeGarmo International Relations Specialist NOAA 1335 East West Highway (7307) Silver Spring Maryland 20910 USA	Phone: +1 301 713 7201 Albert.degarmo@noaa.gov
Armenia	
Dr Armen Saghatelyan Director of CENS NAS RA National Academy of Sciences of the Republic of Armenia (NAS RA) Center for Ecological-Noosphere Studies NAS RA (CENS) 68 Abovyan str. 0025 Yerevan Armenia	Phone: +374 105 729 24 Mob.: +374 914 180 29 Fax: +374 105 729 38 ecocentr@sci.am eco-centr@rambler.ru

<p>Prof. Samvel Harutyunyan Chairman of the State Committee of Science Ministry of Education and Science of the Republic of Armenia 22 Orbeli Brothers St Yerevan 0028 Armenia</p>	<p>Phone: +37410 210 140 111 / +37410 210 140 sharout@ysu.am info@scs.am</p>
<p>Dr Shushanik Asmaryan PhD in Geography, Head GIS and Remote Sensing Department GIS and Remote Sensing Department GIS and Remote Sensing Department of the National Academy of Sciences of the Republic of Armenia 68 Abovyan str. 0025 Yerevan Armenia</p>	<p>Phone: +374 105 729 24 Mob.: +374 940 082 14 Fax: +374 105 729 38 shushanik.asmaryan@cens.am shushanik.asmaryan@gmail.com</p>
<p>Australia</p>	
<p>Dr Stuart Anthony Minchin Chief of Division Environmental Geosciences Geoscience Australia GPO Box 378 Canberra ACT 2601 Australia</p>	<p>Phone: + 61-2-62499898 Mob.: + 61-428602791 Fax: + 61 2 62499964 stuart.minchin@ga.gov.au sminchin@gmail.com</p>
<p>Mr Jonathon Ross CEOS Executive Officer Environmental Geoscience Division Geoscience Australia (GA) Cnr Jerrabomberra Avenue and Hindmarsh Drive Symonston ACT GPO Box 378 Symonston ACT 2609 Australia</p>	<p>Phone: +61 2 6249 5847 jonathon.ross@ga.gov.au</p>
<p>Colombia</p>	
<p>Mr Omar Franco Torres Agronomist / Director General Directorate Institute of Hydrology, Meteorology and Environmental Studies (IDEAM) Calle 25D # 96B-70, 3d Floor 11001 Bogota D.C. Colombia</p>	<p>Phone: +57 (1) 3527160 Fax: +57 1 307 5621 ofranco@ideam.gov.co direccion@ideam.gov.co</p>

Finland	
Mr Mikko Strahlendorff Space Adviser Development Unit Administration Department Finnish Meteorological Institute Erik Palménin aukio 1 FI-00560 Helsinki Finland	Phone: +358 50 359 3795 Mob.: +358 50 359 3795 mikko.strahlendorff@fmi.fi
Mr Petteri Vihervaara Adjunct Professor, PhD Natural Environment Centre Finnish Environment Institute Mechelininkatu 34a P.O. Box 140 00251 Helsinki Finland	Cell.: +358 295 251740 petteri.vihervaara@ymparisto.fi
France	
Mr Dominique Marbouty Copernicus and GEO Interministerial Coordinator Direction Générale pour la recherche et l'Innovation (DGRI) Ministère de l'Éducation nationale, de l'Enseignement Supérieur et de la Recherche (MESR) DGRI 1, rue Descartes 75231 Paris Cedex 05 France	Phone: +33 1 55 55 96 12 Mob.: +33 6 71 86 02 17 dominique.marbouty@recherche.gouv.fr
Japan	
Ms Mami Oyama Deputy Director-General Research and Development Bureau Ministry of Education, Culture, Sports, Science and Technology (MEXT) 3-2-2, Kasumigaseki Chiyoda-ku Tokyo 100-8959 Japan	Phone: +81 3 6734 4181 Fax: +81 3 6734 4162 oyama@mext.go.jp

<p>Mr Masafumi Sato Director for Environmental Science and Technology Environment and Energy Division Research and Development Bureau Ministry of Education, Culture, Sports, Science and Technology (MEXT) 3-2-2, Kasumigaseki Chiyoda-ku Tokyo 100-8959 Japan</p>	<p>Phone: +81 3 6734 4181 Fax: +81 3 6734 4162 msatou@mext.go.jp</p>
<p>Dr Tomohisa Yamamoto Official Environment and Energy Division Research and Development Bureau Ministry of Education, Culture, Sports, Science and Technology (MEXT) 3-2-2, Kasumigaseki Chiyoda-ku Tokyo 100-8959 Japan</p>	<p>Phone: +81 3 6734 4181 Fax: +81 3 6734 4162 tyamamoto@mext.go.jp</p>
<p>Ms Misato Yoshida Administrative Researcher Environment and Energy Division Research and Development Bureau Ministry of Education, Culture, Sports, Science and Technology (MEXT) 3-2-2, Kasumigaseki Chiyoda-ku Tokyo 100-8959 Japan</p>	<p>Phone: +81 3 6734 4181 Fax: +81 3 6734 4162 yoshida-misato@mext.go.jp</p>
<p>Prof. Toshio Koike Director International Centre for Water Hazard and Risk Management (ICHARM) Public Works Research Institute (PWRI) 1-6, Minamihara 305-8516 Tsukuba Japan</p>	<p>Phone: +81 (0)29 879 0854 Cell: +81 (0)80 1238 3119 Fax: +81 (0)29 879 6709 koike@icharm.org tkoike@hydra.t.u-tokyo.ac.jp</p>
<p>Prof. Hiroyuki Muraoka Senior Professor River Basin Research Center Gifu University Yanagido Gifu Japan</p>	<p>Phone: +81-(0)58 293 2064 Cell: +81-(0)90 1569 0438 muraoka@green.gifu-u.ac.jp hiroyuki.muraoka@gmail.com</p>

Korea, Republic of	
Mr Dong-Kyu Lee Deputy Director Space, nuclear and big science cooperation division Ministry of Science and ICT 47, Gwanmun-ro Gwachoensi 13809 Gyeonggi-do Republic of Korea	Phone: +82 2 2110 2793 Cell: +82 10 9325 82 78 Fax: +82 2 2110 0220 ldk@korea.kr kgeo@korea.kr
Dr Yongseung Kim Principal Researcher National Satellite Operation & Application Center Korea Aerospace Research Institute 169-84, Gwahak-ro Yuseong-gu Daejeon, 34133 Republic of Korea	Phone: +82 42 860 2476 Fax: +82 42 870 3909 yskim@kari.re.kr
Mexico	
Mr Eduardo De La Torre Bárcena Av. Héroe de Nacozari Sur Núm. 2301 Fracc. Jardines del Parque C.P. 20276 Aguascalientes, Ags. México	jdelatorre@inegi.org.mx
Russian Federation	
Mr Sergey Uspensky Deputy Director SRC Planeta ROSHYDROMET 7, Bolshoi Predtechnsky Str. Moscow 123242 Russian Federation	uspenskys@planet.iitp.ru
Senegal (did not attend)	
Uganda (did not attend)	
United Kingdom	
Dr Iain Williams Defra Deputy Chief Scientific Adviser Department for Environment, Food and Rural Affairs Nobel House 17 Smith Square, SW1P 3JR London United Kingdom	Phone: +44 208 225 7749 / +44 208 026 3533 iain.williams@defra.gsi.gov.uk

Observers	
CEOS	
Mr Jonathon Ross CEOS Executive Officer Environmental Geoscience Division Geoscience Australia (GA) Cnr Jerrabomberra Avenue and Hindmarsh Drive Symonston ACT GPO Box 378 Symonston ACT 2609 Australia	Phone: +61 2 6249 5847 jonathon.ross@ga.gov.au
Dr Alex Held Principal Research Scientist Marine and Atmospheric Research CSIRO GPO Box 3023 Canberra ACT 2601 Australia	Phone: +61 26 246 5718 Mobile: +61 41 942 7313 Alex.held@csiro.au
Ms Kerry Ann Sawyer SIT Vice-Chair Team International and Interagency Affairs Satellite and Information Services National Oceanic and Atmospheric Administration (NOAA - NESDIS - IIA) 1335 East West Highway Room 7325 Silver Spring MD 20910 United States	Phone: +1 301 713 7074 / +1 301 713 2024 Cell: +1 202 309 3099 / +1 202 309 0399 Fax : +1 301 713 2032 kerry.sawyer@noaa.gov
GOOS (did not attend)	
IEEE	
Prof. René Garello Telecom Bretagne CNRS UMR 3192 LabSTICC - Pôle CID Technopôle Brest Iroise - CS 83818 29238 Brest Cedex France	Phone: +33 2 29 00 13 71 r.garello@ieee.org rene.garello@telecom-bretagne.eu
GEO Secretariat	
7 bis, avenue de la Paix Case postale 2300 CH-1211 Geneva 2 Switzerland	Phone : +41 22 730 8505 Fax : +41 22 730 8520 secretariat@geosec.org