## Key Messages

CEOS values its ability to contribute to GEO as we have done for so many years as the recognised “space arm” of the GEOSS.

GEO is uniquely positioned to convene diverse bodies to agree on working together toward the same strategic direction. How GEO will develop, and harness, its power to convene and connect should be emphasized.

The role of GEO Secretariat in engaging with stakeholders such as donors, investment banks, UN Agencies and the private sector should be made explicit and a priority activity for the GEO Secretariat.

Communities of Practice should be aligned with the Societal Benefit Areas and deliver prioritised user requirements that feed into the observational domains that will define the delivery mechanisms.

GEO should put a particular focus in the next ten-year period on the improved coordination of in-situ observations and of integration of observations from different platforms, such as space and in-situ.

A performance monitoring and evaluation system with clear 10-year goals for SBAs should be an integral part of the governance.

**Strategic Direction**

CEOS welcomes the general thrust of the plan, including the strong focus on delivering the GEOSS. The GEOSS, of which CEOS provides the ‘space arm’, is the key enabler of all other aspects of GEO’s work.

However, CEOS suggests that significantly more emphasis is required on how GEO will develop, and harness, its power to convene and connect. GEO is a unique forum for entities to agree on a common action. It is uniquely positioned, and dependent on, convening diverse bodies including governments, data delivery agencies, research and development bodies, funding bodies, development banks, donors, and United Nations Agencies UN Agencies. CEOS notes that unless GEO is successful in doing so the GEOSS will fail to have a clear reference point to aim for, and the necessary links to take technical capability into practical action will not exist.

CEOS further suggests that GEO make advocacy of its role as a ‘convening’ organisation a core theme in its ‘Advocacy’ area of action.

**Governance**

CEOS welcomes the proposed inclusion of Participating Organizations on both ExCom and the proposed Programme Board. As you are aware, CEOS has been a strong supporter of this concept as it will give those Participating Organizations making major contributions to GEO an opportunity to offer their expertise to GEO decision making. CEOS is very appreciative of this suggestion being taken on board.

We suggest that the next iteration of the Strategic Plan clarify that observer status includes the right to make statements and interventions. We further suggest that the development of the Procedural Rules that define nomination procedures, term lengths, etc are the subject of consultation with the GEO community before the Strategic Plan is released for further comment.

We also suggest that these procedures should ensure that the ability of Participating Organizations to contribute to GEO governance and activity is reflected in selection processes, and should allow for relative stability in participation. Participants in these important governance bodies will benefit greatly from sufficient time to get across the activities and issues. A revolving-door approach to membership will fail to deliver the anticipated benefits.

In relation to the Programme Board, CEOS suggests that the role and responsibilities of the Programme Board be clarified. CEOS notes that the broad remit of that group will position it to perform a valuable role, but that it will make it challenging to ensure there is appropriate expertise in the group without having an unwieldy number of members. CEOS suggests this be given careful consideration. CEOS also further notes that there could be significant resource implications for Participating Organizations to support these roles and suggests GEO consider whether allocations from the Trust Fund should be envisaged.

Finally, CEOS suggests that the role and responsibilities of governments as the members of GEO be emphasised, including in prioritising their needs.

**Emphasis and Priorities**

CEOS, as a coordinating ‘best efforts’ organisation, understands the difficulties associated with responding to priorities established by members and then ensuring that resources are targeted towards them. This is an ongoing challenge for both GEO and CEOS.

CEOS intends continue to provide very responsive and effective coordination of space observations, as has been acknowledged in the various reports and evaluations of GEO progress. However, CEOS notes that the value of space observations will be best realised when they can be integrated with observations from all other platforms to produce integrated information products.

Accordingly, CEOS suggests that GEO put a particular focus in the next ten-year period on the improved coordination of in-situ observations and of integration of observations from different platforms (such as space and in-situ). CEOS suggests this focus be identified explicitly in the Strategic Plan, to ensure it is clear to stakeholders.

CEOS also notes the reference in the Strategic Plan to GEO having a core function of ‘Delivery’. CEOS notes the importance of ensuring that outcomes get delivered, and of ensuring GEO remains focussed on getting information developed and used. However, the current wording in the document can be read to imply that GEO itself delivers data, information and knowledge. CEOS suggests that the wording be clarified to ensure the role of GEO in *facilitating* deliveryis appropriately communicated, as the current language may have the unintended consequence of alienating those individuals and agencies who actually do ‘deliver’.

CEOS further notes that the ‘Engage’ function appears focussed towards downstream “user interaction”, whereas the “Advocate” function is focused towards acquirers of data. CEOS suggests that these functions not be restricted to specific communities as has been done in the Strategic Plan, as it is critical to advocate and engage in both upstream and downstream environments.

**Resourcing**

CEOS welcomes the statements in the Strategic Plan that GEO should be properly funded. CEOS further welcomes the concept of enabling the trust fund to be used to support key foundational tasks and flagship initiatives in a more direct way than has previously been possible.

CEOS understands that such support would likely be small and is not intended to fund complete activities. However, CEOS notes that it could, if appropriately targeted, provide critical leverage in providing momentum to key activities. CEOS suggests the Strategic Plan be clarified to make it clear that such funding can be directed to Participating Organisations, and their members, where that would be an appropriate way of ensuring the success of an activity critical to the success of GEO. CEOS further suggests that the model for calculating trust fund contribution takes account of the potential need for these contributions to increase in certain years. CEOS also suggests that the practice of leveraging resourcing to provide dedicated GEO Secretariat support for Flagships be made mainstream and such support made a condition of a Flagship.

As well as the consideration given to raising and allocating funding from Members, CEOS notes the references in the Strategic Plan to engagement with donors and investment banks. CEOS suggests that these references be given increased emphasis. Such donors and investment banks are likely to be key source of the funding required to mobilize the resources that will be necessary to make substantive progress towards GEO’s vision. CEOS suggests that engagement with such donors and investment banks should be made an explicit and prioritised activity for GEO Secretariat, and that this be referenced in the Strategic Plan.

**Implementation Mechanisms**

CEOS notes the proposed model for implementation mechanisms, and notes it will provide a good mix of avenues for CEOS participation.

CEOS notes the emphasis on strong ‘Flagships’ in the proposed implementation mechanisms. CEOS, which has contributed significantly to the current analogues GFOI and GEOGLAM, sees considerable value in such ‘top-down driven’ activities. However, CEOS suggests that consideration be given to how the Flagships will be lead. CEOS suggests that Flagships require strong stakeholder ownership and oversight, not just their sponsorship and support. This will give those stakeholders the strongest motivation to ensure resources are mobilized, to advocate for the initiative, and to take other steps to make it succeed.

CEOS suggests that ongoing consideration be given to ensuring the implementation mechanisms are as streamlined as possible. CEOS notes that the level of detail available about the new Work Programme is necessarily limited, and that it will evolve over the coming months, including through consultation at the GEO Work Plan Symposium. CEOS welcomes the opportunity to participate in shaping the structure and content of that important document, as well as the processes surrounding it.

CEOS welcomes the three year focus of each work programme, noting that such a timeframe will be helpful at building momentum in activities. However, CEOS suggests that having clear goals and measurable targets for each SBA area for delivery by 2025 will be critical in assessing whether any given three year programme is advancing the agenda at a sufficient pace.

CEOS suggests that the performance monitoring system be further described and that it includes a flexible process to realign, add and remove elements of the Work Plan on a regular basis when there is a lack of progress or reporting, or where new opportunities arise.

CEOS further suggests that there should be increased transparency about which of the entities identified for a given activity are actually contributing and progressing. CEOS suggests that the mechanisms for monitoring and reporting success should ensure that due recognition is given to those entities that are delivering. CEOS notes that where such success is not communicated it can make it more challenging to secure continued, or additional, resources to support GEO activity.

**Identification and Gap Analysis**

CEOS notes the importance of having clear statements of validated observation requirements and the value of gap analyses. CEOS notes that the SBAs and Observation Domains can, and should, provide a good framework for developing such information. Thus, it should be made more explicit that user requirements are expressed through SBAs and that the observation domains bridge them to the delivery mechanisms.

CEOS understands and notes that developing such information is very resource intensive and defining anything as a definite ‘requirement’ can be divisive and controversial. However, CEOS further notes that without such information there is no baseline against which success can be measured. CEOS sees a clear need to be able to identify the relative value (to society) and cost (to technical agencies) of meeting certain requirements. CEOS itself works to do this in the domain of space-observations, and would welcome an increased emphasis by GEO on doing this more broadly across the Earth observation domain.

CEOS notes the number of references in the Strategic Plan to identifying requirements and gaps. However, CEOS notes with some concern that previous attempts to define requirements and identify gaps have been difficult to turn into action. The development of ‘non-prioritized wish lists’ is not helpful in terms of mobilizing resources. Moreover, such documents can raise expectations that cannot be realistically met, and generate a (possibly false) perception that GEO and its participants are failing to deliver.

CEOS suggests that bottom-up, community-driven approaches are valuable but should be tempered with more robust stakeholder engagement to ensure priorities can be identified. CEOS would welcome further dialog on how the processes of identifying and validating requirements foreshadowed in the Strategic Plan will work, including how that work will be resourced and governed. CEOS suggests that the more flexible approach to use of the Trust Fund may provide a good opportunity to ensure this critical work does get done.

CEOS also notes references to ‘investment planning’, and suggests that the Strategic Plan include a strong focus on ensuring GEO advocates for the necessary investment to address priority gaps, noting that ultimately governments and agencies will remain accountable for deciding what to do.

**Societal Benefit Areas and Earth Observation Domains**

CEOS notes the proposed Societal Benefit Areas, and views them as a good evolution of the previous ones. CEOS does, however, note its concern with the inclusion of ‘Climate’ as a distinct Earth Observation Domain. The observation of ‘Climate’ depends on observation of atmosphere, coasts, oceans, land and water as demonstrated by the GCOS Essential Climate Variables to which CEOS is providing considerable support through its joint (with CGMS) Working Group on Climate. CEOS suggests that the reference to ‘Climate’ be removed.

CEOS encourages GEO to ensure that the Societal Benefit Areas have strong alignment to the Sustainable Development Goals under negotiation. CEOS believes that the ability for Earth observation to support international efforts to track progress towards, and support achievement of, these goals will be critical to the overall success of GEO’s vision.

**Knowledge Base**

CEOS notes and supports the concept of a "GEO Knowledge Base". CEOS suggests this could be a focus of the GEO Portal, providing best practices, standards, and documentation that reflect global information. GEO is uniquely suited to proactively compile and curate such information, since it is a global group that can survey the broad list of users and stakeholders.

**Communities of Practice**

CEOS welcomes the references to the Communities of Practice, and the desire for them to be inclusive. CEOS notes that in some cases, Communities of Practice have played a critical role in implementing GEO’s mission, connecting GEO to the broader scientific and user communities and leveraging the synergies when groups collaborate toward a common goal.

CEOS proposes that the GEO Secretariat describes how it will work actively to develop and evolve Communities of Practice that focus on specific Societal Benefit Areas. Unless this clear link is present, CEOS sees significant potential for the Communities of Practice to be disconnected from the broader GEO effort. This, in turn, creates great potential for their work to be misaligned with, or worse undermine, broader GEO activity. CEOS notes that, where necessary, existing Communities of Practice may need to be supported to restructure or, of course, given the opportunity to continue their work without the imprimatur of GEO.

CEOS also notes with concern that it is difficult to see how the Strategic Plan will ensure Communities of Practice are actually harnessed by GEO to help deliver its objectives. CEOS suggests that further elaboration on how the Communities of Practice will engage with the planning and delivery of activity be included in the next iteration of the Strategic Plan. CEOS suggests that Communities of Practice should be strictly aligned with Societal Benefit Areas and could be given a key role in establishing coherent observation and information requirements and priorities. CEOS provides further comment on the need for processes that ensure such requirements and priorities are rigorously vetted, defensible and actionable elsewhere in this submission.

**Engagement with the United Nations**

CEOS welcomes the references to engagement with the United Nations generally, and to United Nations programmes and agencies specifically, in the Strategic Plan.

CEOS is of the view that the United Nations can play a key role in the future success of GEO, if engaged with in an appropriate, structured and proactive manner by GEO. The United Nations has great potential to provide clear global mandates for activities, to identify and prioritise user requirements for initiatives and user groups, to support engagement with countries (particularly developing ones), and to mobilize the funding and other resources required to enable the relevant technical agencies to deliver.

CEOS is of the view that GEO should take a leading and strategic role in ensuring the role and value of GEO is understood across the United Nations, and removing impediments that make it difficult for GEO participants to engage with the United Nations. This latter work has largely been left to individuals and agencies to handle on their own at initiative or activity level, and this approach has been demonstrated to be both inefficient and ineffective. Although CEOS sees considerable value in engagement with the United Nations, CEOS does note with some concern that engagement with the United Nations to date has not been effective.

CEOS suggests that engagement with United Nations agencies should be made an explicit and prioritised activity for GEO Secretariat, and that this be referenced in the Strategic Plan.

CEOS suggests that GEO give some thought, before the Strategic Plan is released, to a model for engagement with the United Nations and that this model is the subject of consultation with the broader GEO community.

CEOS also notes the strong references to the critical activity of Capacity Building. CEOS has provided strong and complementary support to GEO’s capacity building initiatives for many years. CEOS welcomes the opportunity to ensure capacity building continues to be successful, and notes that improved GEO-UN engagement in this area has significant potential.

**Private Sector Engagement**

CEOS welcomes the numerous references to increased engagement with the private sector. The private sector has a significant role to play in providing capability and resources. Successfully demonstrate the potential private sector benefits of Earth observation, for example through development of new value-adding products and services, would also help strengthen government support for GEO. Increased private sector economic activity, if well communicated, will help mobilise further resources to support GEO (and CEOS) activity.

CEOS notes that although the benefits to GEO, and to the private sector, of increased engagement exist they are not well communicated in the current document. Attention should therefore be given to exposing a more explicit value proposition for private sector engagement. CEOS further notes with concern the lack of information on how this engagement will be governed and managed. CEOS understands this is the subject of current deliberations, and that further information will be circulated to the GEO community shortly. Accordingly, CEOS expresses in-principle support at this stage, and welcomes the opportunity to contribute further to discussion in this area. CEOS recalls GEO’s attentions to its previous statements on the subject of appropriate private sector involvement from November 2013.