

Task AR-07-03
GEO Architecture and Data Committee

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Task AR-07-03

“Ensure the availability of accurate, consistent, homogeneous, long-term stable, global geodetic reference frames as a mandatory framework and the metrological basis for Earth observation.”

Goals:

- **User requirement coordination:** Establish a comprehensive GEOSS database of user requirements concerning georeferencing and geodetic reference frames by identifying, describing and establishing links to relevant user communities in the nine societal benefit areas and conducting appropriate surveys.
- **Georeferencing:** Ensure the availability of appropriate global geodetic reference frames for GEOSS.

Deliverables in 2007:

- **GGOS 2020 Reports**
- **GGOS 2007 Workshop**
- **Also mentioned: GAGOS**

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(1) User requirement coordination: Establish a comprehensive GEOSS database of user requirements concerning georeferencing and geodetic reference frames by identifying, describing and establishing links to relevant user communities in the nine societal benefit areas and conducting appropriate surveys. Individual steps include:

- Identify relevant user groups in the societal benefit areas, including groups of users relevant for several benefit areas, and create a matrix of users, groups of users and benefit areas.
- Identify and quantify the requirements of the nine benefit areas with respect to georeferencing and access to a long-term stable reference frame.
- Facilitate an assessment of the current status and future requirements for the geodetic reference frames and geodetic observations with particular focus on the needs of the nine benefit areas.
- Identify user-oriented capacity building needs within the different user groups with respect to reference frames.

Establish links between representatives of the different user groups within the nine benefit areas and an appropriate expert team to coordinate georeferencing and reference frame issues across these areas.

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(2) **Georeferencing:** Ensure the availability of appropriate global geodetic reference frames for GEOSS. Individual steps include:

- **Identify steps** towards ensuring consistent, high-accuracy, homogeneous, and long-term stable global geodetic reference frames for Earth observation and the observing systems contributing to GEOSS.
- **Advocate the continuous support** of the global geodetic infrastructure required for the maintenance and development of the global geodetic reference frames at an appropriate level.
- **Critically assess the sustainability** of the global geodetic infrastructure and the Services, which are currently based on: the voluntary commitments of a large number of national agencies, research institutions, and individuals, and consider alternative organizational models, including an intergovernmental framework for the maintenance of the geodetic reference frames, which would support the transition to fully operational reference frames.

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(2) **Georeferencing:** Ensure the availability of appropriate global geodetic reference frames for GEOSS. Individual steps include:

- ...
- Consider the **potential of regional organizations** to address reference frame related challenges in their regions and to stimulate cross-disciplinary solutions.
- Promote the **establishment of sufficient geodetic infrastructure** in regions currently lacking such infrastructure, particularly in Africa and parts of Asia and Latin America.
- Improve the **accessibility and applicability** of the geodetic reference frames for all GEOSS components.

Actions:

- **Contact the Participating Organizations and Member Countries**
- **Participate in the ADC Meeting February 28 – March 1, Geneva**
- **Clarify procedure for GEO – GGOS 2020 endorsement**
- **Integrate other Task Participants in the GGOS 2020 Team**