

International Centre For Global Earth Models (ICGEM)

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ICGEM website - <https://icgem.gfz.de/home>



1 Activities during the reporting period 2023-2025

ICGEM has been continuing its operational activities, such as provision of global gravity field models (GGMs) (e.g., static, temporal, topographic), calculation service on gridded and user-defined points as well as supporting the users offline [1, 2]. It contributes to geosciences and educational activities with its well established and newly developed tools, interactive services and its outreach channels.

The ICGEM team successfully received funding to expand the service and its components. The three year project SAMDAT (Service and Archive for Mass Distribution And mass Transport data) aims to respond to the growing need and community-derived demand for quality assured, well-documented global gravity field models (GGMs) and related products with additional types of datasets that are enriched with metadata and provided in a sustainable and freely accessible research data infrastructure. The SAMDAT project has been the highlight of the ICGEM activities in 2023-2025 and it is financed by DFG (German Research Foundation) in the field of Scientific Library and Information Services within the program funding programme Information Infrastructures for Research Data.

The project has officially started in July 2024 with new members of 1 Postdoc and 2 PhD equivalent. The responsibility will be shared by GFZ and TUM scientists and the two

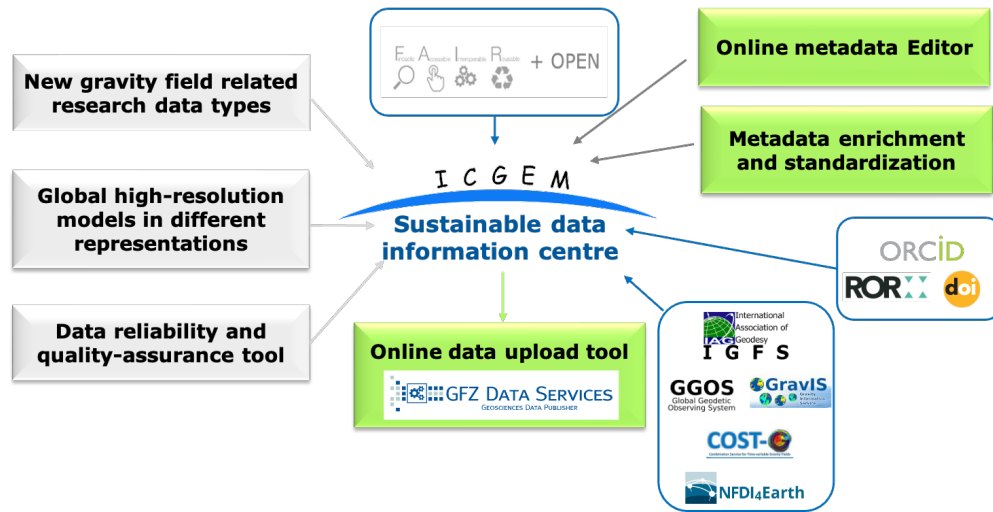


Fig. 1. SAMDAT Project Objectives: New ICGEM components

fundamental objectives of the SAMDAT project are as listed as follows (see also Fig. 1), whereas the planned work packages are summarised in Fig. 2.

- Scientific and technical expansion via modernising and upgrading the existing database with new and interoperable platforms, additional and reformed research data and meta-data.
- Modernisation of the calculation and visualisation services that the scientific community and society have a great interest on.

The summary of the activities performed in 2023 -2025:

1. ICGEM team organised splinter meetings both in EGU2024 and GGHS2024 to discuss about the community needs.
2. ICGEM team had a presentation on GGOS Days 2024.
3. The SAMDAT project has officially started in July 2024.
4. ICGEM's SAMDAT project team prepared a user survey to hear from the scientific community and announced it to interested parties via different channels (e.g., IUGG monthly newsletter, ICGEM subscription list). Data collected and the description of the survey are published in [3] (Survey).
5. ICGEM team reported the results of the survey in [4] (Survey_results).

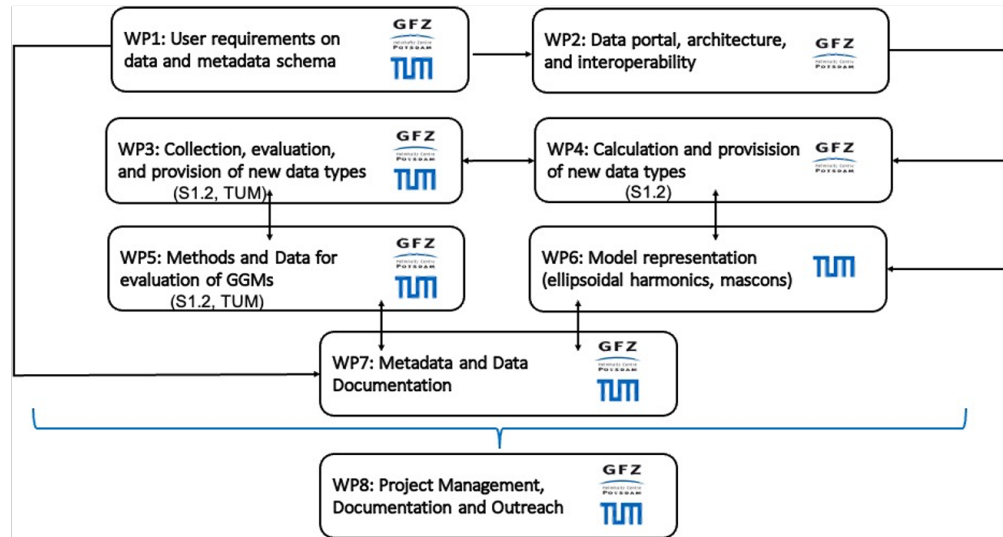


Fig. 2. SAMDAT Project Work Packages with corresponding responsible institutions.

2 Structure

The ICGEM Service is organized by means of the ICGEM Team supported by GFZ. The team at the moment consists of two members supporting the scientific and technical development and assisted by the SAMDAT project team during the 2024-2027 project period.

Point of Contact

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*Please note that the institutions name has been changed from Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences to GFZ Helmholtz Centre for Geosciences and the extension for the staff's email addresses changed from gfg-potsdam.de domain to gfg.de.

References

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- [3] Uz, M.; Torkhov, A.; Reißland, S.; Ince, E.S.; Förste, C., Gruber, T.; Niedermaier, J.; Elger, K. (2025): Responses to the ICGEM User Community Survey: Analysis and Future Plans with the SAMDAT Project. GFZ Data Services, <https://doi.org/10.5880/GFZ.LIS.2025.001>.
- [4] Torkhov, A., Uz, M., Ince, E.S., Reißland, S., Gruber, T., Förste, C., Niedermaier, J., Elger, K. (2025): Report on the ICGEM User Community Survey: Analysis and Future Plans with the SAMDAT Project, (Scientific Technical Report STR - Data; 25/01), Potsdam: GFZ Helmholtz Centre for Geosciences, <https://doi.org/10.48440/gfz.b103-25011>.