

Terms of Reference

GEOTRACES Scientific Steering Committee and Standing Committees

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GEOTRACES represents an unprecedented integration and synthesis, on a global scale, of research into the marine biogeochemical cycles of trace elements and isotopes. As such, GEOTRACES requires strong coordination and management. The programme management and organisational structure are described in Section 9 of the Science Plan and represented in the GEOTRACES [organisation chart](#) (both documents are available on the web site at www.geotraces.org).

GEOTRACES Scientific Steering Committee (SSC)

The [GEOTRACES Scientific Steering Committee](#) (SSC) has the primary responsibility for coordination and management of international GEOTRACES activities. Main duties include:

- set policies for the GEOTRACES programme;
- oversee the [International Project Office](#) (IPO), the [GEOTRACES Data Assembly Centre](#) (GDAC) and the standing committees to ensure that the common needs of GEOTRACES activities are met;
- interact with national committees and organise planning workshops as needed to establish research priorities and implement GEOTRACES;
- organise ocean sections, both to ensure global coverage of vital regions of interest and to avoid unnecessary duplication of effort. The SSC reviews national proposals for sections and offers recommendations for adjustments to proposed sections when these are deemed beneficial. It has final responsibility for designating an ocean section as a GEOTRACES section;
- promote partnerships where international collaboration is needed to complete a section, or to ensure that all core parameters are measured along a section;
- review proposals for endorsement as GEOTRACES Process Studies and compliant data;
- define GEOTRACES data products;
- seek, in partnership with national committees, financial resources from national and international funding agencies to support the implementation of GEOTRACES;
- foster dissemination of the findings of the GEOTRACES programme;
- define indicators and metrics for evaluation and demonstration of GEOTRACES progress;
- provide regular reports to the Scientific Committee on Oceanic Research (SCOR), the principal body providing oversight of GEOTRACES;
- recommend to SCOR: members for appointment to the committee, co-chairs and amendments to the ToR when necessary; and

- appoint standing committees' co-chairs and members.

The SSC meets once each year to review progress in programme implementation, define the future programme agenda, and provide guidance to the IPO, the GDAC and the standing committees. In addition, the SSC as a whole or in sub-groups may be called on to consider issues of relevance to the programme by email or teleconference between annual meetings.

The GEOTRACES co-chairs have the additional duties:

- ensure the international promotion of the project;
- interact as closely as possible with the IPO in order to ensure the good implementation of the project; and
- represent GEOTRACES at scientific conferences, in meetings with other scientific programmes, etc. In some cases, the co-chairs may ask an SSC member to serve in their place.

Operating procedures

The GEOTRACES SSC is overseen by SCOR, which is responsible for the appointment of the co-chairs and SSC members. SCOR will ensure that the SSC maintains the necessary expertise required to oversee the range of scientific activities that are included in GEOTRACES.

The SSC is led by three co-chairs, in order to broaden leadership perspectives and guide successful completion of the GEOTRACES mission in international synthesis, coordination, and outreach, as well as to facilitate leadership transition and continuity in duties in case of one chair's temporary absence. The co-chairs terms will be staggered so that they do not all rotate off at the same time. All SSC members, including co-chairs, serve for a term of 3 years. The 3-year term can be renewed once, for a total commitment of 6 years.

GEOTRACES Standing Committees

Some of the GEOTRACES activities require a sufficient level of effort and expertise to warrant the creation of a standing committee. Standing Committees receive guidance from the SSC and assistance from the IPO.

The following standing committees have been established:

GEOTRACES Standards and Intercalibration Committee

The primary responsibilities of the GEOTRACES [Standards and Intercalibration Subcommittee](#) (S&I) are to:

- oversee GEOTRACES intercalibration activities with the overall goal of achieving the most precise and accurate data for the suite of GEOTRACES TEI data sets;
- review GEOTRACES section and process study cruise data sets to ensure they meet intercalibration precision and accuracy criteria established by the respective TEI communities prior to inclusion in the GEOTRACES data base; this activity is done in collaboration with the Data Management Committee;
- evaluate and develop GEOTRACES sample acquisition, handling, and storage protocols during initial Intercalibration Cruises, and regularly update these protocols as appropriate based on experience during subsequent GEOTRACES cruises;

- identify existing GEOTRACES primary standards and certified reference materials (CRMs) for the TEI suite (and, where needed, initiate and oversee the production of reference materials or primary standards), including the establishment of GEOTRACES Baseline Stations that can be used to evaluate accuracy from sampling to analysis (to facilitate intercalibration for TEIs that do not have Consensus Standards or CRMs); and
- recommend to the SSC co-chairs and members for appointment to the committee.

GEOTRACES Data Management Committee

The main duties of the [GEOTRACES Data Management Committee](#) (DMC) are to:

- recommend standards and formats for submission of data and metadata to the SSC;
- recommend data policies to the SSC;
- oversee the activities of the GDAC;
- co-ordinate the delivery of data products;
- oversee model-data synergy workshops; and
- recommend co-chairs and members for appointment to the committee to the SSC.

Operating procedures

The GEOTRACES SSC is responsible for overseeing and appointing of the co-chairs and members of the standing committees. The SSC must ensure that each standing committee has the necessary expertise required to undertake its activities. The criteria to select members are the following:

- For the DMC: DMC members must have experience in the provision or application of GEOTRACES data. DMC members may be data generators or data users, noting that these terms are not mutually exclusive. Members should have several years of experience in the field of trace element and isotope marine biogeochemistry, familiarity with the handling and application of large GEOTRACES datasets for a wide range of key parameters, an internationally-recognised research profile and be respected within the community.
- For the S&I Committee: S&I members should have field and analytical expertise in at least one of the TEI suites that GEOTRACES examines, roughly: trace elements, radionuclides, particles (loosely defined, but TEIs within the particulate phase), stable isotopes (nutrient, radiogenic, trace element), and hydrography/nutrients. The individual should be well connected to their TEI community in order to fairly represent their views and experience at Committee meetings and in data evaluation. The “ideal” candidate would be an analytical expert who has also done field work on par with a GEOTRACES cruise and experience with statistical methods for data evaluation.

Standing committees membership should aim to have a broad global spread across continents. To facilitate leadership transition and guarantee continuity of duties in case of one chair’s temporary absence, all standing committees are co-chaired. For DMC one co-chair is nominally a data generator and the other a data user. All members of standing committees including co-chairs serve for a term of 3 years. The 3-year term can be renewed.