

# GEOTRACES

An International Study of the Marine Biogeochemical  
Cycles of Trace Elements and their Isotopes



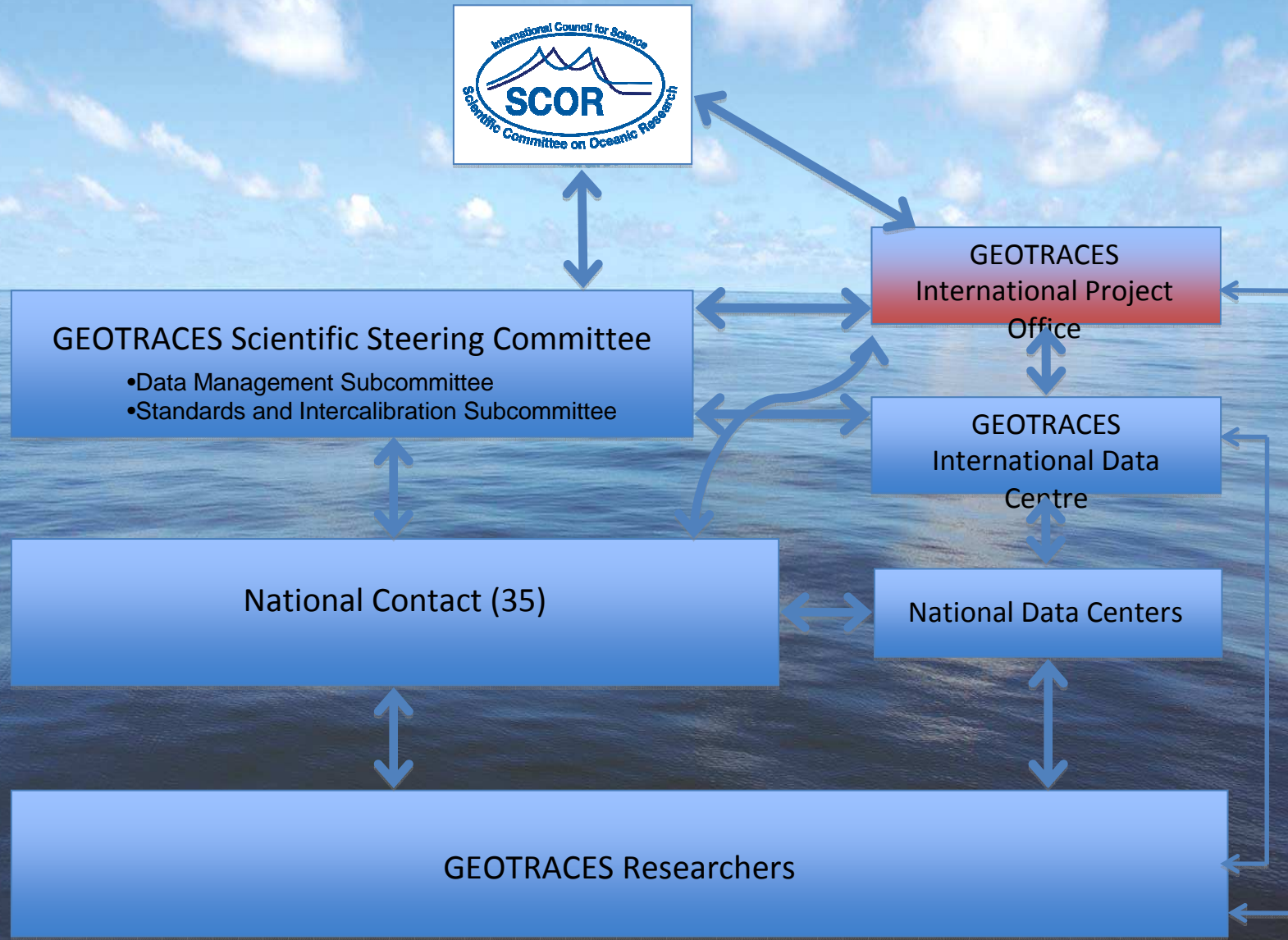
International Project Office

Catherine Jeandel  
Elena Masferrer-Dodas

## GEOTRACES Programme

- GEOTRACES is an international programme which aims to improve the understanding of biogeochemical cycles and large-scale distribution of trace elements and their isotopes in the marine environment.
- Scientists from approximately 30 nations have been involved in the programme, which is designed to study all major ocean basins over the next decade.
- GEOTRACES Science Plan (2006).
- International Project Office at LEGOS, Toulouse, France (2010) and International Data Assembly Centre in Liverpool, UK (2008).

# GEOTRACES Organisation



## GEOTRACES International Project Office (Toulouse, France)

- Staff:
  - Elena Masferrer Dodas (Executive Officer)
- Assisting GEOTRACES SSC: working with co-chairs, representing the project at international meetings, liaising with other projects and sponsors, interacting with GEOTRACES national committees and groups, reports from meetings.
- Communications/outreach: including Web site, maintenance of mailing lists, capacity building, etc.
- Administration/logistics: fund raising, managing project finances, logistics for meetings.
- Assist the GEOTRACES data Assembly Centre in securing data and metadata from national field programs, as directed by the SSC.

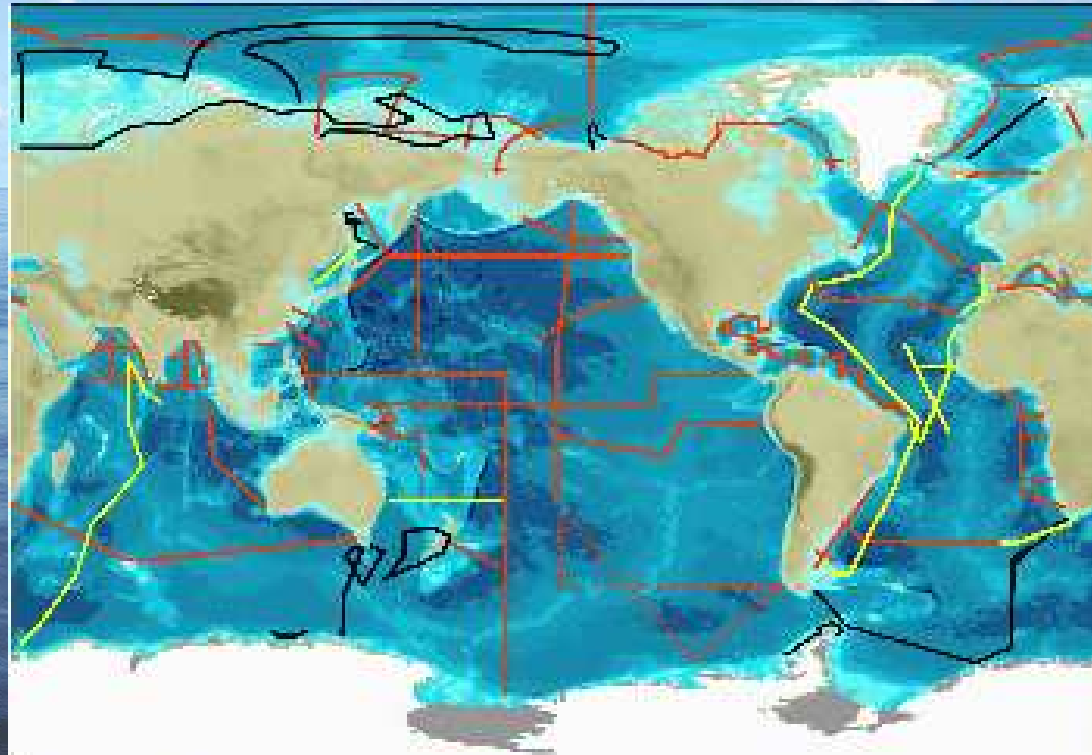
IMBER = 3 staff members  
SOLAS = 3 staff members

## Cruise coordination (clearing house) and communication

**In red:**  
Planned Sections.

**In yellow:**  
Completed Sections.

**In black:**  
Sections completed as  
GEOTRACES  
contribution to the  
IPY.



12 Full GEOTRACES cruises completed + 3 on-going in 2011  
13 GEOTRACES-IPY cruises completed

## Scientific Animation

- **Past meetings (since GEOTRACES officially launched):**
  - Ocean Science, February 2010, Portland, US.
  - **SCOR General Assembly, September 2010, Toulouse, France.**
  - **GEOTRACES SSC Meeting, September 2010, Toulouse, France.**
  - **1st Mediterranean Planning Meeting, October 2010, Nice, France.**
  - Asia Planning Workshop, October 2010, Taipei, Taiwan.
  - International Workshop on Mercury in Marine Environment, May 2011, Piran, Slovenia.
  - 43rd International Liege Colloquium on Ocean Dynamics, May 2011, Liege, Belgium.
  - GEOTRACES SSC Meeting, September 2011, Xiamen, China.
  - **2<sup>nd</sup> Mediterranean Planning Meeting, October, Toulouse, France.**
  - Special sessions at: ASLO, EGU, ICAS, AOGS, Goldschmidt...
- **Forthcoming and planned meetings:**
  - **GEOTRACES Data-Model Synergy Workshop, November 14-17, Barcelona.**
  - Latin America Workshop, Autumn 2012.
  - Special Sessions at Ocean Science Meeting 2012

**Forthcoming...**

## **3rd GEOTRACES Data-Model Synergy Workshop**

**14-17 November 2011**

**Universitat Autònoma de Barcelona, Spain**

The workshop will focus on ocean particles, with emphasis on their role in the biogeochemical cycle of trace elements & isotopes (TEIs).

The first three days of the workshop will consist of three sessions:

- 1) *Observing particles in the ocean*
- 2) *Role of particles in the cycle of TEIs*
- 3) *Transport & transformation of particles*

The last day of the workshop will be used to recommend future studies that would further our understanding of ocean particles.

The action items to be identified during the workshop will be reported in a journal publication.

**Planning Group:**

**Bob Anderson  
Christoph Heinze  
Gideon Henderson  
Catherine Jeandel  
Phoebe Lam  
Olivier Marchal  
Pere Masqué  
Ben Twining**

**Local organizers:  
Pere Masqué  
Elena Masferrer**

**Abstract submission deadline:  
30 August 2011**

**Registration deadline:  
30 September 2011**

**Please submit your abstract to  
[data\\_model@geotraces.org](mailto:data_model@geotraces.org)**

**For more information:  
[www.geotraces.org](http://www.geotraces.org)**

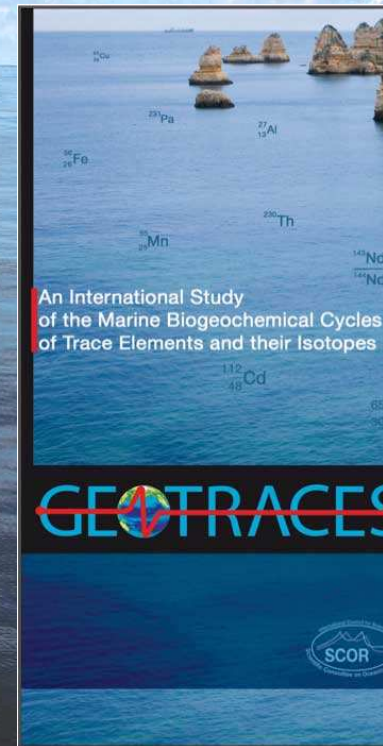
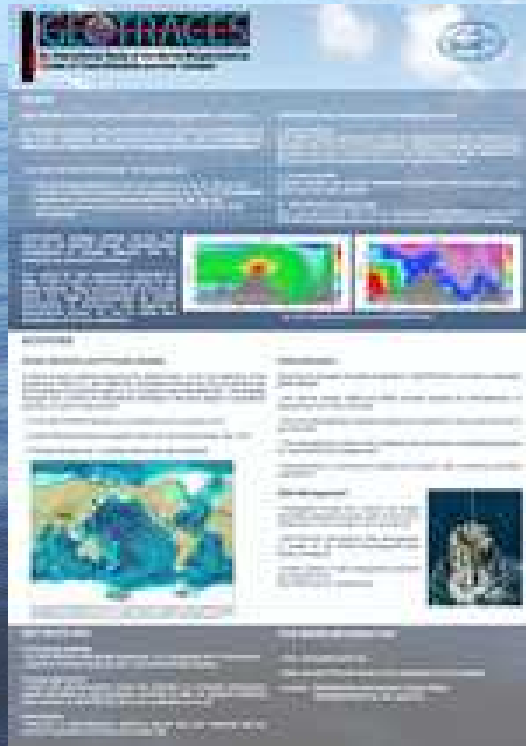


**GEOTRACES**

**GEOTRACES**

## Participation to meetings

- Ocean Science 2010, EGU 2010, PICES 2011, COLACMAR...





## **GEOTRACES Website and mailing list maintainor**

- **Website:**

- **statistics** (January to September 2011, 8 months):

- **Total visits:** 7.571 → 29 visits/day (average)
- **Absolute Unique Visitors:** 3.840
- **Pageviews:** 24.492

**>> [www.geotraces.org](http://www.geotraces.org)**

- **Mailing list:**

- 709 subscribers (35 countries) and growing...

# GEOTRACES Website

Visitors by country



## GEOTRACES Website – French visitors



# GEOTRACES Website



An International Study of Marine Biogeochemical Cycles of Trace Elements and their Isotopes



- Home
- About us
- Science
- Cruises
- Meetings
- Library
- Outreach
- News
- Contact us

## QUICK LINKS

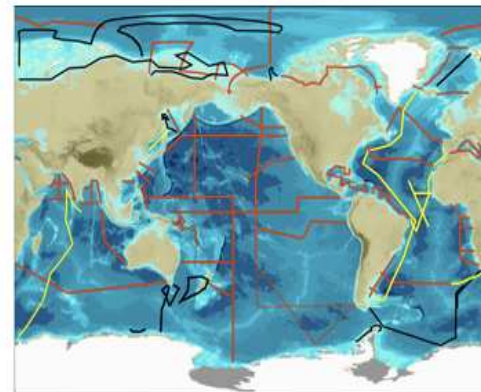
- [GEOTRACES Policies](#)
- [Data and Data Management](#)
- [Standards, Methods & Intercalibration](#)
- [Calendar of Meetings](#)
- [GEOTRACES Brochure](#)

RSS SUBSCRIBE

## Welcome to GEOTRACES

**GEOTRACES** is an international programme which aims to improve the understanding of biogeochemical cycles and large-scale distribution of trace elements and their isotopes in the marine environment. Scientists from approximately 30 nations have been involved in the programme, which is designed to study all major ocean basins over the next decade.

Number of Stations Completed 0 0 3 7 2



**GEOTRACES Sections.** For more information please click [here](#).

In red: Planned Sections. In yellow: Completed Sections. In black: Sections completed as GEOTRACES contribution to the IPY.



# GEOTRACES Databases

- GEOTRACES Analytical Expertise Database
- Cruise Data Database
- GEOTRACES Publication Database


**GEOTRACES**

Recent papers in this group

 **Precise measurement of (228)Ra/(226)Ra ratios and Ra concentrations in seawater samples by multi-collector ICP mass spectrometry**  
YT Hsieh, GM Henderson  
*JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY*, Volume: 26, Issue: 7 (2011)

 **Determination of Nd Isotopes in Water: A Chemical Separation Technique for Extracting Nd from Seawater Using a Chelating Resin**  
PO Persson, PS Andersson, J Zhang  
*ANALYTICAL CHEMISTRY*, Volume: 83, Issue: 4 (2011)

 **Synoptic transects on the distribution of trace elements (Hg, Pb, Cd, Cu, Ni, Zn, Co, Mn, Fe, and Al) in surface waters of the Northern- and Southern East Atlantic**  
C Pohl, PL Croot, U Hennings  
*JOURNAL OF MARINE SYSTEMS*, Volume: 84, Issue: 1-2 (2011)

 MENDELEY View group

## Data Management Subcommittee

- Co-chairs:
  - Reiner Schlitzer (Alfred Wegener Institute, Germany)
  - Chris Measures (University of Hawai`i at Manoa, US)
- GEOTRACES International Data Center, BODC, Liverpool, UK.
  - Ed Mawji (GEOTRACES Data Manager, GDAC)

**>> GEOTRACES Intermediate Data Product to be released on spring 2014.**

## Standards and Intercalibration Subcommittee

- Chair:
  - Greg Cutter, Old Dominion University, USA
- Activities:
  - International GEOTRACES Cruise Protocols (“Sampling and Sample-handling Protocols for GEOTRACES Cruises”)
  - Special volume, “**Intercalibration in Chemical Oceanography**,” for *Limnology & Oceanography: Methods* in preparation. Editors: G. Cutter, P. Andersson, and P. Croot. Funded by US NSF and authors. 24 manuscripts currently submitted and in review. Early 2012 publication.

## Outreach Activities

- To enhance GEOTRACES outreach activities, special attention will be given to Secondary Schools (teachers).
- Materials:
  - Resource Outreach Library available on the GEOTRACES website.
  - New brochure to be released in 2012.
  - GEOTRACES Poster available soon.



# GEOTRACES France

## 2011

- KEOPS II (Natural Fe fertilization process study)

## 2012

- PANDORA (Marginal Sea process study):
- Solomon Sea, sources de l'enrichissement en fer de la « langue d'eau froide » du Pacifique

## 2013

- **Mediterranean Sea** section (Fr-Es-It)

## 2014

- GEOTRACES-OVIDE North Atlantic Section

## 2016

- Durban-Kerguelen

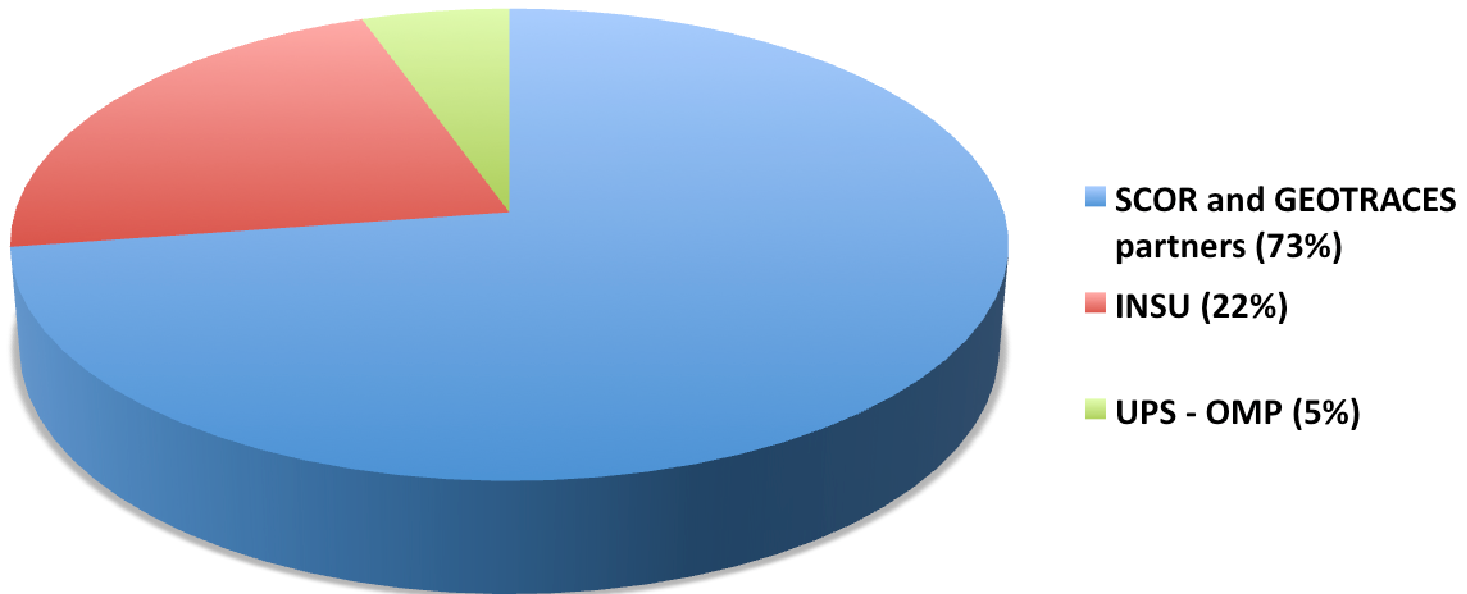
## GEOTRACES Mediterranean

- Established network involving 44 researchers.
- GEOTRACES Mediterranean Planning Workshop  
October 2010 (Nice, France)
- GEOTRACES Mediterranean Cruise Planning  
Meeting October 5, 2011 (Toulouse, France).
- For more information:  
<http://www.cybaes.org/gtmed/index.html>



## Budget IPO

Budget IPO



## Funding

- **Seeking funding:**
  - European Union (lobby):
    - Environmental DG
    - Research DG
  - European Science Foundation
  - Private sponsorship?

## European Funding (Progress)

- **European Science Foundation (ESF):**
  - ESF Marine Board (Navigating the Future IV) – Marine Thematic Research priorities. - Important for French funding.
  - COST

*(ESF may merge with the EUROHORCS (European Heads of Research Councils). At the moment a decision has not been taken yet whether if the two organisations merge on a new organism (ScienceEurope) and ESF is wound down in 2015, or if the ESF based in Strasbourg is transformed and just a new office is open in Brussels. Most of the ESF Programmes are discontinued)*

## European Funding (Progress)

- **European Commission:**
  - Environment DG: Goal « Ocean for Tomorrow call » (FP7)
    - Marine Strategy Framework Directive (MSFD) and Good Environmental Status (GES) Working Group.
      - GEOTRACES included in the WG.
  - Research Directorate-General:
    - European Research Area (ERA) --- Joint Programming Initiative (JPI) “Oceans” and ERANET Seas – calls foreseen.
    - FP7 --- (it will finalise end of 2013, last calls July 2012)
    - HORIZON 2020 (it will integrate what would have been 8FP and the existing innovation programmes (CIP and EIT) --- (first calls beginning 2014)