

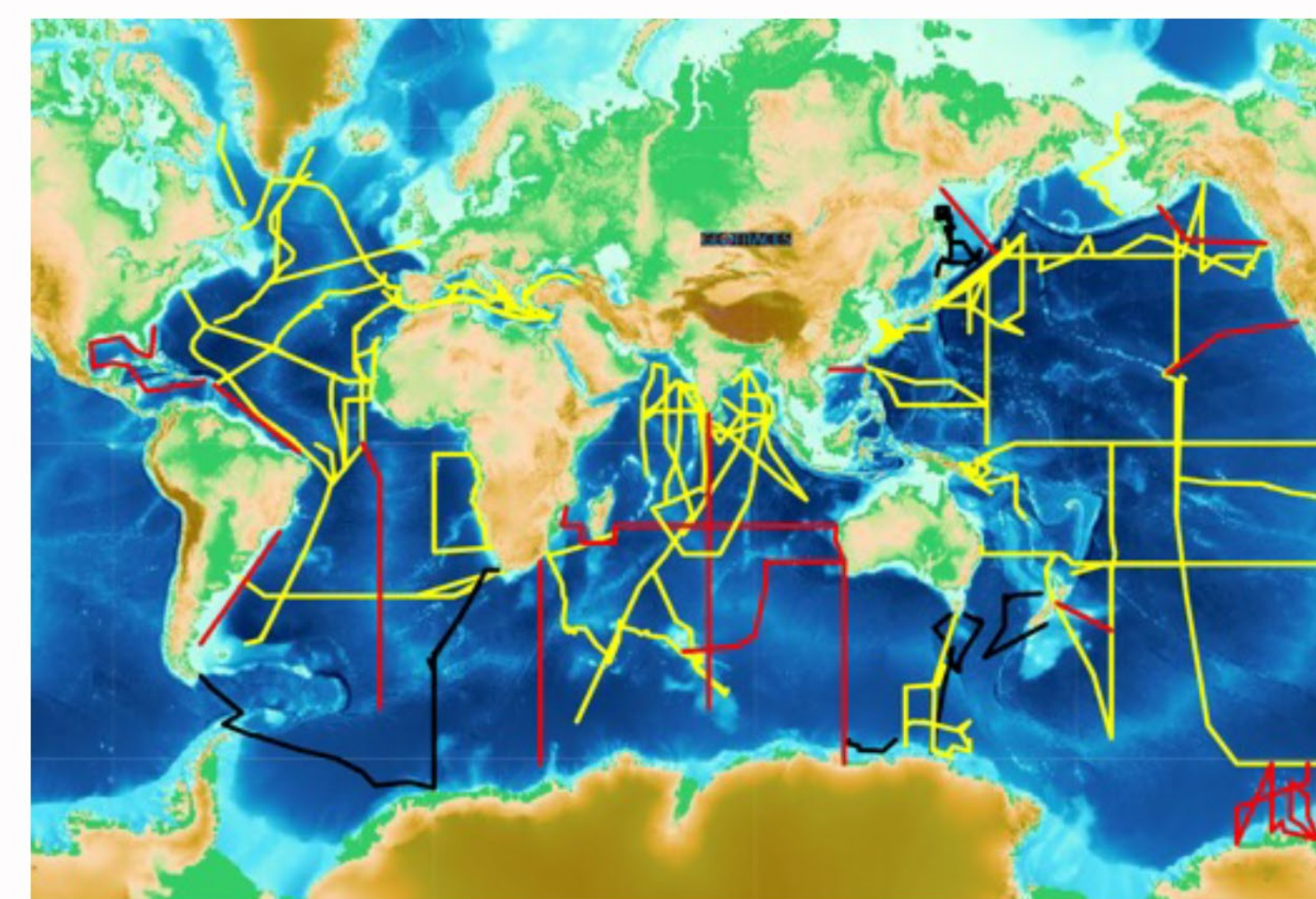
## Scope

GEOTRACES is an international marine chemistry programme. Its goals are:

To identify processes and quantify fluxes that control the distributions of **key trace elements and isotopes in the ocean**, and to establish the sensitivity of these distributions to changing environmental conditions. To achieve these goals, the GEOTRACES programme engages in field measurement campaigns, as well as data analysis and modelling.

"Key trace elements and isotopes" are those that are:

- o **micronutrients** essential to life in the ocean (e.g., Fe, Zn, Cd, Cu, Co)
- o **tracers of modern processes** in the ocean (e.g., Al, Mn,  $\delta^{15}\text{N}$ , Ra isotopes)
- o **pollutants** (e.g., Pb, Hg, Sn)
- o **proxies** to reconstruct the past (e.g.,  $^{231}\text{Pa}$ ,  $^{230}\text{Th}$ ,  $\delta^{13}\text{C}$ ,  $\delta^{30}\text{Si}$ , Nd isotopes)



### To Date:

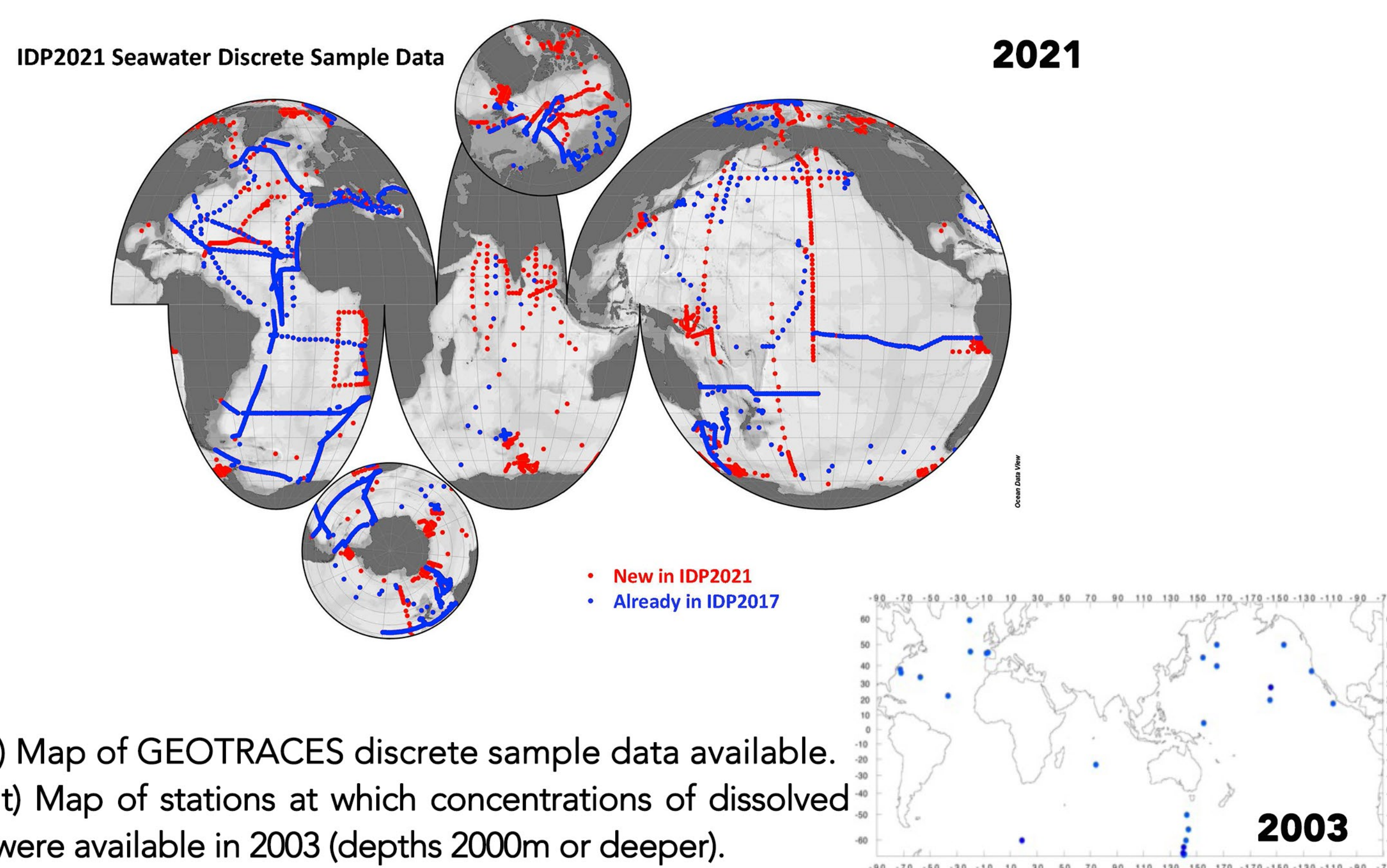
**35** nations  
**148** cruises completed  
**50** sections completed (in yellow and black)  
**2,220** publications  
**3** data products (2014, 2017, 2021)

Map legend: GEOTRACES Sections (January 2024). In red: Planned Sections. In yellow: Completed Sections. In black: Sections completed as GEOTRACES contribution to the International Polar Year.

## Intermediate Data Product

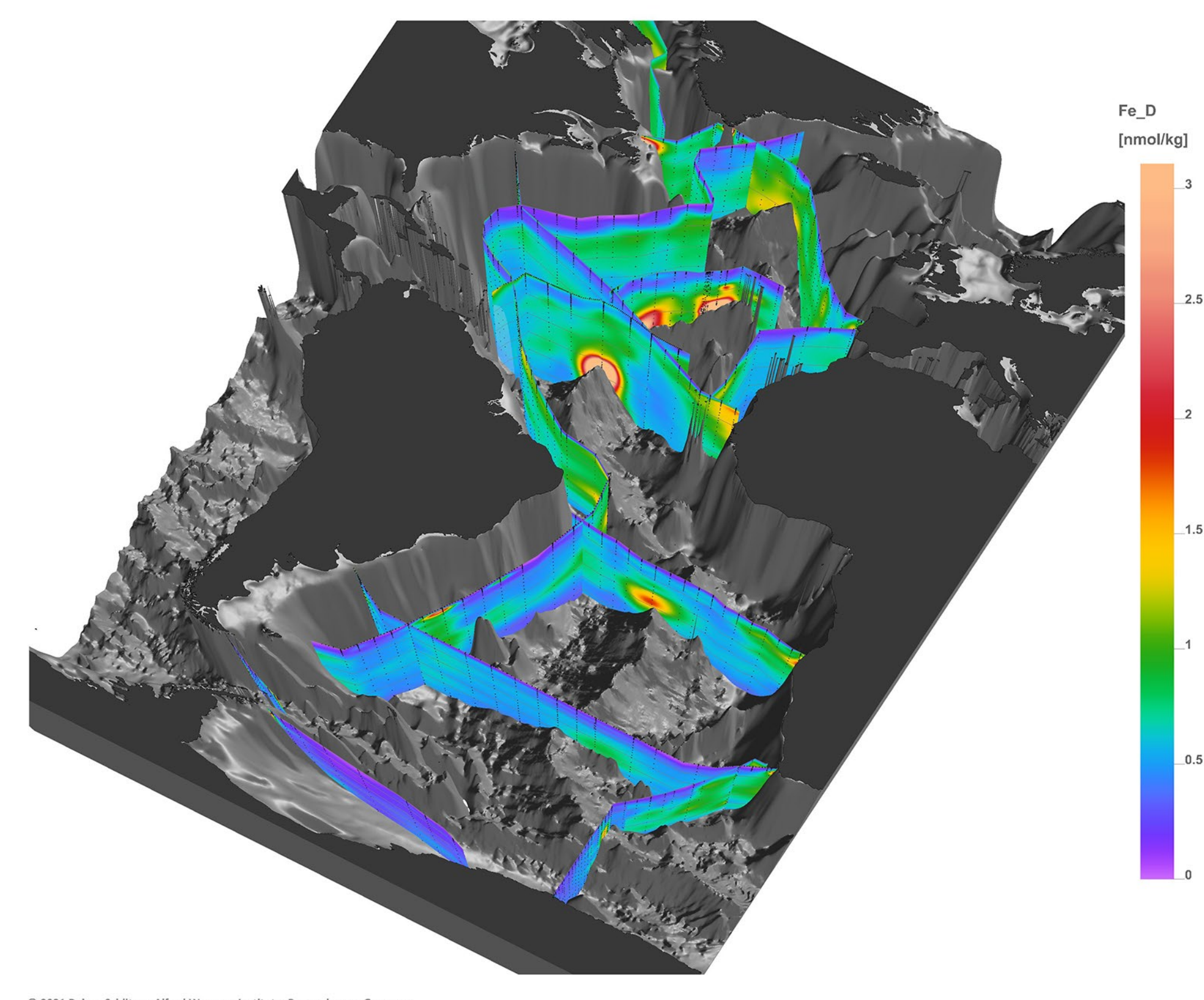
GEOTRACES is releasing and sharing hydrographical and marine geochemical data to strengthen and promote collaborations within the broader ocean research community. The **GEOTRACES Intermediate Data Product 2021 (IDP2021 version 2)** consist of two parts:

(1) A **compilation of digital data** containing hydrographic and biogeochemical data from 89 cruises covering the global ocean.



(Top) Map of GEOTRACES discrete sample data available.  
(Right) Map of stations at which concentrations of dissolved iron were available in 2003 (depths 2000m or deeper).

(2) The **eGEOTRACES Electronic Atlas** providing section plots and animated 3D scenes, such as the image below, showing the distribution of dissolved iron in the Atlantic Ocean (warm colours indicate high concentrations).



## DOWNLOAD GEOTRACES DATA

4 ways to access GEOTRACES data to accommodate different users:



### Bulk (full packages) download

3 formats: CSV-ASCII, NetCDF and Ocean Data View (ODV) collections.

### Online subsetting and extraction (WebODV Extractor)\*

Easy to select variables, region, cruises, etc.

### Online analysis and visualization (WebODV Explorer)\*

Very user friendly tool, no need to download software or data.

### eGEOTRACES.org Atlas\*

Select a data group and tracer from any cruise or basin to view the tracer distribution in a section and/or 3-D scenes.

\*Tools produced by Reiner Schlitzer, AWI-Bremerhaven, Germany.

## WE WANT TO DO MORE!

### GEOTRACES investigators:

**Your data is essential to complete this international collaborative effort!**

Next Data Product will be released in November 2025!

Make sure your data are included  
Learn how



### Deadlines for inclusion in IDP2025:

**15th May 2024** – First deadline for the submission of datasets and completed intercalibration reports to guarantee inclusion in IDP2025. After this date we cannot guarantee your data will be included.

**15th December 2024** – Final deadline for submission of datasets and the completed intercalibration reports.