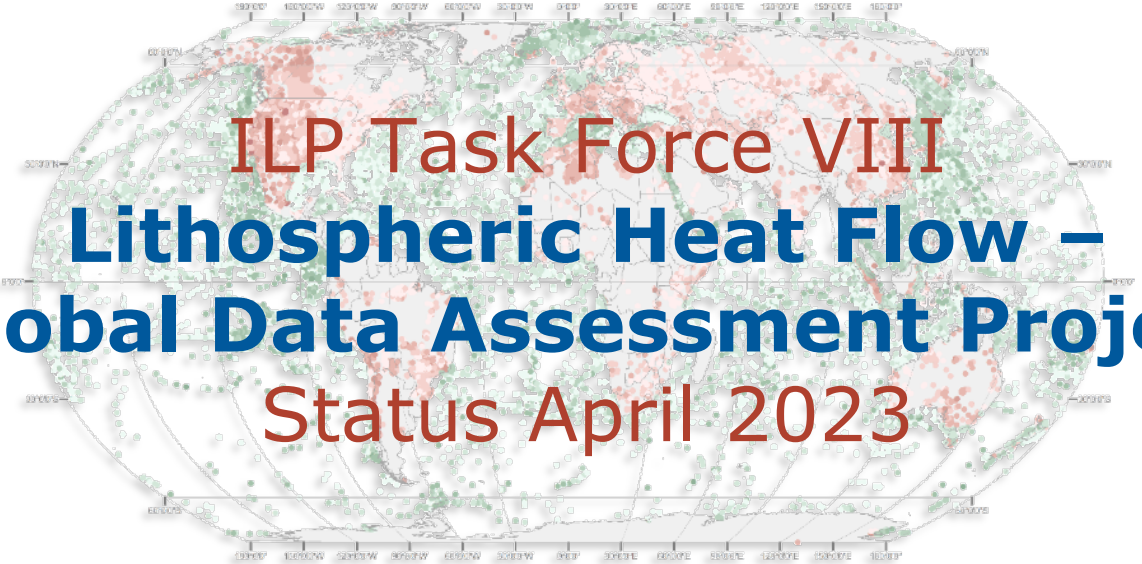


ILP Task Force VIII
Lithospheric Heat Flow – Global Data Assessment Project
Status April 2023

Sven Fuchs | Massimo Verdoya | Raquel Negrete-Aranda | Shaowen Liu | Robert Harris | Graeme Beardsmore

- The ILP TF VIII guides and supervises the **Global Heat Flow Data Assessment Project.** The project is designed to provide a quality-controlled, authenticated global database of heat flow values and other thermal data. This project supports the International Heat Flow Commission (IHFC).
- The project was kicked-off with 65 volunteering collaborators in May 2021 (04/2023: 96 scientists from 36 countries / 5 continents)

Goal

- organize a multi-national (inclusive) collaboration of volunteering scientists to scrutinize the global literature to extract and recompile all relevant heat-flow data and metadata
- **AIM/OBJ 1: Systematic assessment of global heat-flow data:** quality assure and updating the current database
- **AIM 2: Development of a quality-ranking scheme** for heat-flow data

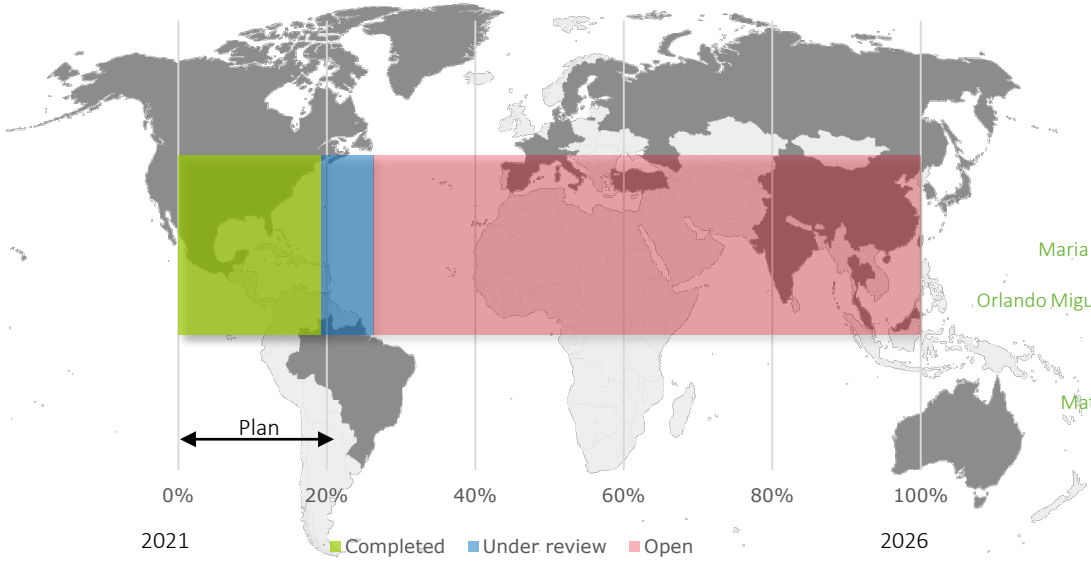
WP1 Revision Status Year 1.5

Release 2023

- 1414 publications
- 270+ Finished (20 %)
- 99 under review (7.4%)

Collaborators:

- 17 provided data
- 30 requested data
- 48 slept



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WP2: Quality scheme

- 38 co-authors
- Under review in Tectonophysics special issue

Quality-assurance of heat-flow data: the new structure and evaluation scheme of the IHFC global heat flow database

WORK IN TRACK CHANGES!

Sven Fuchs[1], Ben Norden[2], Florian Neumann[3], Norbert Kaul[5], Akiko Tanaka[6], Ilmo T. Kukkonen[7], Rodolfo Christiansen[8], Gianluca Gola[9], Jan Šafanda[10], Orlando Miguel Espinoza-Ojeda[11], Ignacio Marzan[12], Ladislaus Rybach[13], Elif Balkan-Pazvantoğlu[14], Elsa Cristina Ramalho[15], Petr Dědeček[16], Raquel Negrete-Aranda[17], Niels Balling[18], Jeffrey Poort[19], Piotr Słomski[20], x[21], x[22], x[23], x[24], x[25], x[26], x[27], x[28], x[29], x[30], x[31], x[32], x[33], x[34], x[35]

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Task Force VIII collaborates to

WORLD HEAT FLOW DATABASE PROJECT

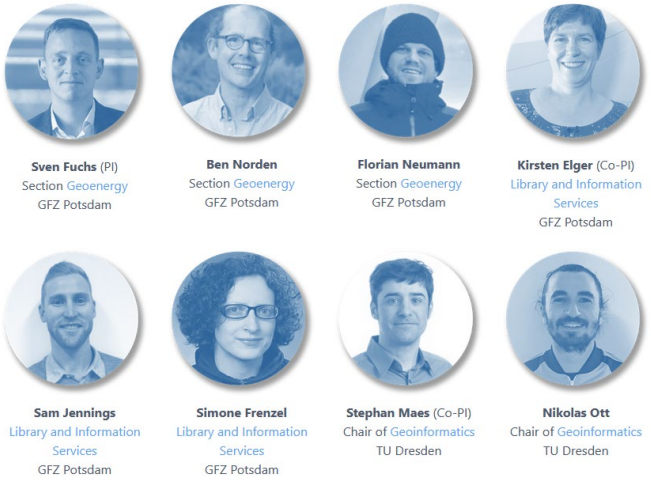
2022-2025 +2 | www.heatflow.world

Strategy: to connect closer to the marine research world

- *A new research data infrastructure for heat flow*
- *A new user-oriented web service*
- *FAIR + OPEN +INTEROPERABLE*
- *heatflow.world : Community and network platform*

Team

Members of the World Heat Flow Database Project team:



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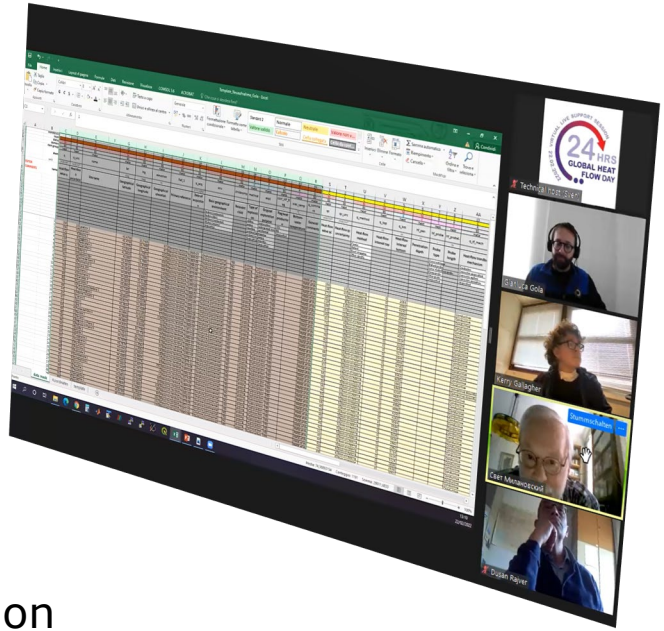
Training

2nd Day: 23 Feb 2023



- The 24hrs Global Heat Flow Day is a one-day outreach initiative by ILP TF and IHFC to teach/support the global heat flow community on how to work with the new database structure and how to transform past and newly acquired heat flow data into the new structure

YouTube Thermal Geophysics

IAPSO!

WORLD HEAT FLOW DATABASE PROJECT

- 03-07 July summer school on heat flow, 2-3 internat. teachers (Florian Neumann) HEATFLOW X summerschool
- 08-09 July IHFC/INSTANT/SCAR heat fow Antarctica workshop (Tobias Stal)
- 10-11 July 2 days workshop on heat flow in Africa /Latin-/ South America / Southern Atlantic Ocean
- 11-20 July IUGG (IASPEI

  Session: *JS08 Advances in Heat Flow Studies: From Fundamental Geodynamic Understanding to Geothermal Energy Applications*

  IHFC business meeting

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