Our Mission

TIPMIP is an international model intercomparison project that aims to systematically advance our understanding of tipping dynamics in various Earth system components, and assess the associated uncertainties. By connecting and evaluating various models, TIPMIP will fill critical knowledge gaps in Earth system and climate modelling by improving the assessment of overall anthropogenic forcing and long-term commitments (irreversibilities). It will furthermore foster interdisciplinary knowledge transfer and shed light on critical processes currently underrepresented in Earth-system models and analysis. In doing so, it will inform relevant policy- and decision makers regarding tipping boundaries in the Earth system.

Timeline

- **2022/2023**: Grow Community via TIPMIP workshops Exeter Tipping Points Conference and WE Heraeus Seminar
- **2024**: Finalise experimental design
  - Start of phase 1 experiments
- **2025**: Finalise phase 1 experiments
  - Start analysis
- **2026**: First suite of papers and synthesis report
- **2027**: CMIP7
- **exp. 2028**: IPCC AR7

Key Research Questions

- **Key feedback processes?**
- **Critical thresholds?**
- **(Different types of) uncertainties?**
- **(Ir)reversibility? Hysteresis?**
- **Characteristics and timescales?**
- **Interactions?**

Project Governance Structure

- Governance board
- Steering Committee

Domains

- Coupled ESM
- Ice sheets
- Permafrost
- Ocean
- Biosphere
- Methods and risk assessment

Data pre- and post-analysis

Direct links and synergies to other MIPs

If you would like to become part of the TIPMIP family, you can register your model at the following link or sign up to receive news: [https://tipmip.pik-potsdam.de/contact/](https://tipmip.pik-potsdam.de/contact/).