

# CLICCS

- is an ambitious research program at Universität Hamburg and strong partner institutions.
- is funded by the German Research Foundation (DFG) and part of Germany's Excellence Strategy.
- is exploring which decisions will need to be made in order to achieve the goals set out in the Paris Agreement. Is it possible to limit global warming to 2 degrees or, even better, 1.5 degrees? If yes, how?
- is guided by the overarching research question: Which climate futures are possible and which are plausible?
- spans the range from basic research on climate and social dynamics to the transdisciplinary exploration of human-environment interactions.
- aims to understand climate changes, taking into account internal variability, extreme events, and unexpected side effects, addressing the natural and social spheres as well as their interactions.
- will distill results on possible and plausible futures within CLICCS and worldwide into an annual 'Hamburg Climate Futures Outlook' and establish an active dialogue with decision-makers.
- provides information needed by decision makers for planning a sustainable future.

## RESEARCH APPROACH AND STRUCTURE

CLICCS will investigate how climate changes and how society changes with it, thereby feeding back on climate.

It will identify those climate futures that are consistent with both climate and social dynamics (possible), and those we expect to unfold with appreciable probability (plausible).

The scientific objectives will be achieved through three intertwined research themes:

A – provides the natural basis for understanding climate system dynamics, including climate variability and extremes, the climate change already unfolding, and the climate change expected for the future.

B – investigates the climate-related dynamics of social systems and provides the social science foundation for the construction of plausible climate scenarios, with a specific emphasis on deep decarbonization.

C – focuses on coupled human–environment dynamics on a regional level, where climate change becomes visible and where sustainable adaptation can be realized by local actors.

The three themes combine the research of 14 dedicated projects. Support will be given through the CLICCS project 'High-Performance Computing and Data-Intensive Science'.

### CLICCS PARTNER INSTITUTIONS

The CLICCS program is coordinated through Universität Hamburg's Center for Earth System Research and Sustainability (CEN) in close collaboration with:

- Max Planck Institute for Meteorology (MPI-M)
- Helmholtz-Zentrum Geesthacht (HZG)
- German Climate Computing Center (DKRZ)

### FURTHER PARTNER INSTITUTIONS

- Deutscher Wetterdienst (DWD)
- Federal Waterways Engineering and Research Institute (BAW)
- Bundesamt für Seeschifffahrt und Hydrographie (BSH)
- German Institute of Global and Area Studies (GIGA)
- HafenCity University Hamburg (HCU)
- Helmut Schmidt University (HSU)
- Institute for Peace Research and Security Policy at Universität Hamburg (IFSH)
- Hamburg University of Technology (TUHH)



**EXZELLENZCLUSTER**  
CLIMATE, CLIMATIC CHANGE,  
AND SOCIETY (CLICCS)