

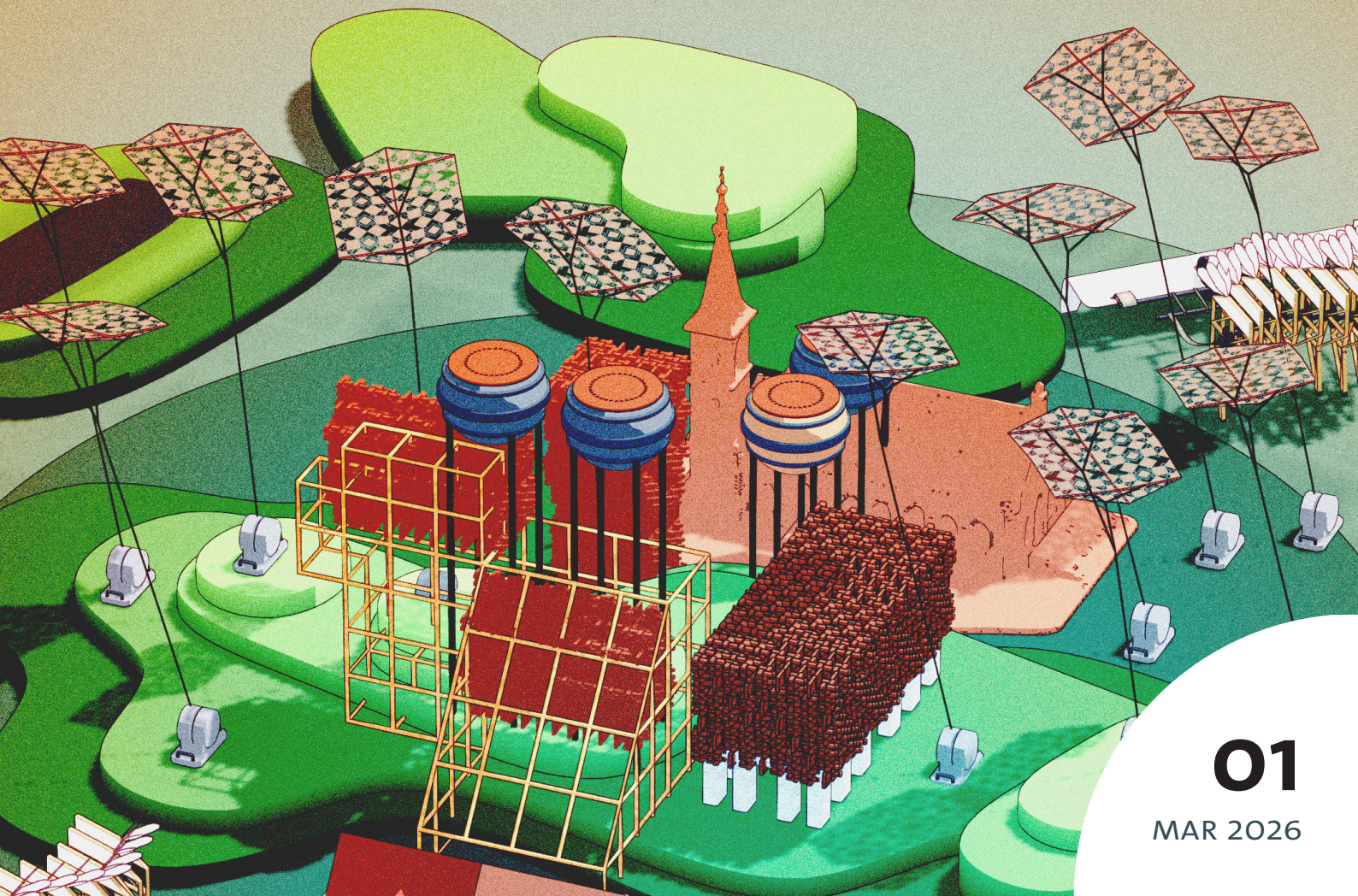


Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

CLUSTER OF EXCELLENCE
CLIMATE, CLIMATIC CHANGE,
AND SOCIETY (CLICCS)

THE POWER OF IMAGINATION

HOW WE USE IT TO EXPLORE PATHS TO A FUTURE CLIMATE WORTH LIVING IN

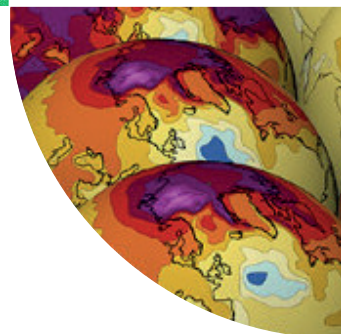


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MAR 2026

CLICCS QUARTERLY

NEWS FROM CLIMATE RESEARCH





How does climate change affect our lives – and vice versa? A schema of research fields and connecting processes in CLICCS.

CLIMATE FUTURES: UNDERSTAND, SHAPE, AND DECIDE

What are climate futures, which are desirable, and which are feasible? The Cluster of Excellence CLICCS brings together various actors and encourages thinking beyond conventional models of the future. In the following, CLICCS Speakers Johanna Baehr and Achim Oberg discuss the new project phase.

CLICCS has pursued interdisciplinary research into whether our climate targets can realistically be reached. What will be the focus areas going forward?

Johanna Baehr: We're investigating the effects of climate change on our lives and, at the same time, how the way we live affects the climate. What climate the future holds depends on how we live, work and do business today. We'll continue to focus on these questions, applying comprehensive expertise from the natural and social sciences. But now it's about a broader understanding of climate futures. We want to expand people's imaginations and spark new discussions. Our guiding question is: how can desirable climate futures be achieved? Here, we won't just do research, but also interact more intensively with civil society, politics and business.

How do you plan to expand the dialogue?

Achim Oberg: We'll use a range of formats. It's all about learning together so as to drive climate protection and climate-change adaptation forward. Our first goal is for people to have a clearer

image of various potential climate futures. This "future literacy" will allow them to identify potential future developments, grasp them, discuss them and take action. After all, climate futures are now mostly presented as grim dystopias, candy-coated utopias or vague promises of change. What's lacking: plausible futures, that is, more desirable or less desirable scenarios that are based on research and conveyed in a straightforward way that promotes dialogue.

How will that literacy be fostered at the Cluster?

Baehr: It all begins with the academic discourse on future climate scenarios. We've introduced the "thought experiment" format to supplement natural sciences-based scenarios with social sciences expertise. These experiments not only broaden our perspective; they also reveal new avenues of research.

How do you approach potential futures that are still unimaginable for us?

Oberg: As a first step, and together with experts from 16 fields, we've begun assessing the political, technological

and ethical impacts of climate change, and working with artists to make them something tangible. Together, we've developed the first life-worlds, which combine the various outcomes in areas like our daily lives, democracy, climate-change adaptation and society. Here, we also consider the hopes and goals of various social groups. Further experiments on a range of topics will follow. In this regard, we'll invite experts from around the globe to Hamburg.

How can the experiments have a social impact?

Baehr: Stories, pictures and videos can make abstract ideas more concrete, while also showing what we stand to lose. This could help motivate people to start questioning things and encourage them to make decisions that will help ensure the future they consider to be worth living in comes true.

THE CLIMATE TRANSITION: HOW FAR HAS GERMANY COME?

Politicians and business are dragging their feet, consumption isn't getting any environmentally friendlier, a political shift to the right has made climate skepticism socially acceptable, and support for climate action is eroding in some parts of the populace. A team led by Prof. Stefan Aykut, Dr. Anna Fünfgeld and Prof. Eduardo Gresse has analyzed the socially relevant key processes and concluded: right now, it's hardly realistic for Germany to be climate-neutral by 2045.

The study shows that climate neutrality can only be achieved through a fundamental social transformation. This includes binding laws and regulations, as voluntary commitments, e.g. those of firms, won't suffice. Further prerequisites: a capable federal government and a populace that supports and shapes climate protection.

"Social pressure can have a critical influence on politics," says Stefan Aykut. But, according to the study, the number of protests for more climate protection has significantly



declined. What can help instead: forming local alliances that push for e.g. climate-friendlier infrastructure or heating grids. "Climate lawsuits are another effective means of achieving more climate protection," Aykut claims. In this regard, the team has created the first comprehensive database, with currently 175 climate lawsuits filed in Germany. uhh.de/cliccs-klimawende-en

Sun over Berlin: Heatwaves in Central Europe are occurring more suddenly and more frequently.



HEATWAVES: MORE INTENSE AND LESS PREDICTABLE

Heatwaves in Europe are not only becoming more frequent and intense, but also less predictable. A new study by a team led by Dr. Goratz Beobide-Arsuaga shows that global warming is amplifying the climate system's internal variability. "Europe is a real hotspot. The intensity of heatwaves is increasing three to four times faster here than in other regions of the Northern mid-latitude," says Beobide-Arsuaga. The key factor: soil moisture. When soils oscillate between wet and dry conditions, they can intensify heat extremes. Once dried out, evaporative cooling weakens – and temperatures spike more abruptly. In Southern Europe, soils are already so dry that further drying has little atmospheric impact. Temperatures remain high, but variability decreases. Central Europe, by contrast, is now experiencing increasingly chaotic summers once typical of the Mediterranean.

Analyzing around 250 climate simulations, the researchers were able to separate the effects of changing internal variability from the long-term warming on European heatwaves for the first time. Their finding: not only are average temperatures rising – the climate system's flicker is intensifying as well. For climate adaptation, this means not only planning for gradual warming, but also for sudden record-breaking extremes.

uhh.de/cliccs-europeanheatwaves

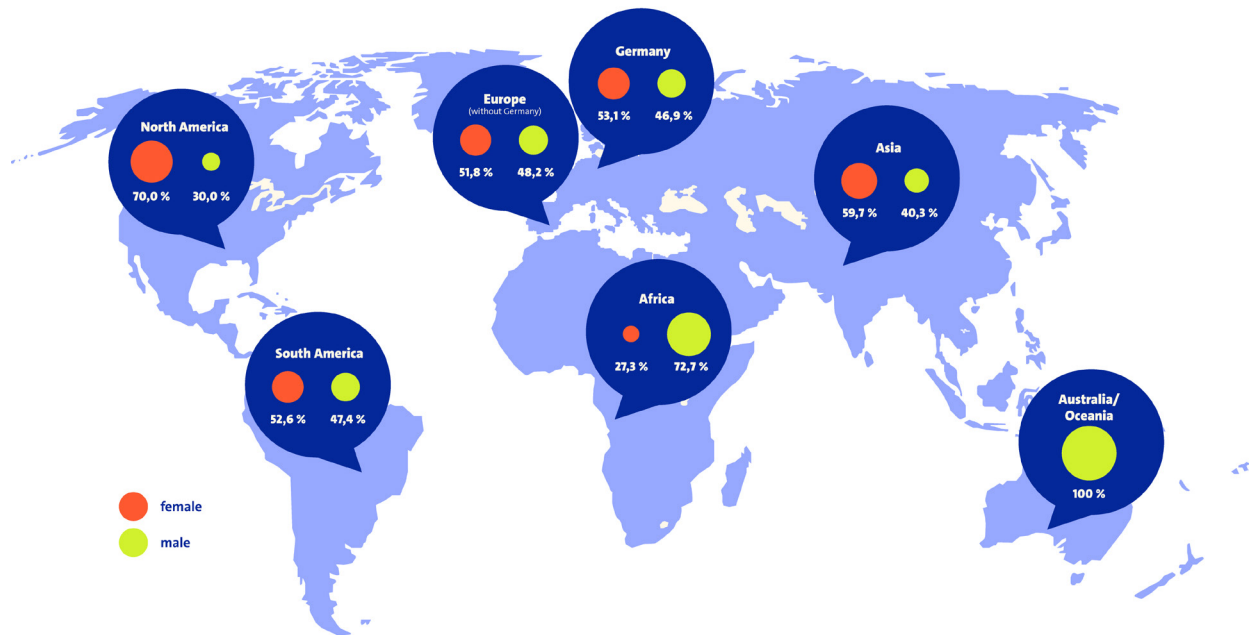
EXCELLENT PREPARATION FOR GLOBAL CHALLENGES

The graduate school SICSS (School of Integrated Climate and Earth System Sciences) offers options for every career stage: from master's degree programs and Ph.D. projects, to postdoctoral and junior professor programs. Founded in 2008, SICSS has since admitted 343 Ph.D. candidates from 48 countries, especially

China and India. The number of female students is at a stable 50 percent across all programs, an important step toward ensuring better academic prospects for women.

SICSS pursues an interdisciplinary approach, with a broad variety of subjects ranging from meteorology to peace studies. And

its successes speak for themselves: more than 70 percent of all graduates go on to pursue an academic career, many of them at prestigious institutes around the globe. Others choose to go into politics, to serve at international organizations, or to apply the expertise they acquired in Hamburg in the business sector.



NEWS IN BRIEF

HOPE THROUGH ACTION

Despite the challenging conditions in northern Namibia, the region's smallholders are much more often optimistic than resigned. Prof. Michael Schnegg lives together with them on a regular basis and has investigated where their resilience comes from – and what e.g. Europe could learn from them. uhh.de/cliccs-climate-resilience

CLIMATE POLICY – IS IT ALL IT'S CRACKED UP TO BE?

When climate protection targets are set, measures are then designed to help achieve them. As Dr. Anne Gerstenberg shows, political interests and personal views have a major influence on measures' specific design – and in some cases, even overshadow climate protection.

uhh.de/cliccs-cliprotection-en

CLICCS EXHIBIT AT BERLIN'S FUTURIUM

How far has society come in achieving key climate targets? Are consumption, climate policy, and industry still on course? At the Futurium, you can guess and push the button to see if you were right. Info-panels describe which social factors are most important for reducing CO₂. The research is from CLICCS. uhh.de/cliccs-futurium-en

PUBLISHED BY

Climate, Climatic Change, and Society (CLICCS)
Cluster of Excellence at University of Hamburg

Earth and Society Research Hub (ESRAH)
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