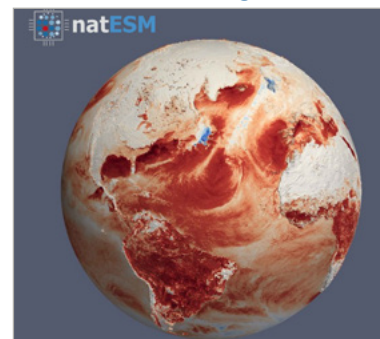




Spotlight: natESM – The shared infrastructure for Earth system modeling

German Earth system modeling ranks among the world's best – yet its historically diverse landscape hinders collaboration and the efficient use of shared resources. This is where natESM comes in: Developed together with the German Earth system modeling community, the project – coordinated at the DKRZ – builds an open and long-term infrastructure that brings together models, software, and scientific expertise. Through coding sprints, collaborative software development, workshops, and training sessions, natESM strengthens knowledge transfer across institutional boundaries and lays the foundation for efficient and future-proof Earth system models. The focus is not only on modern software and infrastructure, but above all on close collaboration between climate researchers and research software developers. Further information: www.dkrz.de/en/natesm



New HSM system for climate data archive at DKRZ

In mid-July, DKRZ launched a new hierarchical data management system (HSM) for its data archive. Following a public tender, NEC was awarded the contract to supply and implement an HSM solution based on NEC hardware and Versity's ScoutAM software. The new system is designed to significantly accelerate the archiving and access to climate simulation data. In the future, data transfer speeds of up to 30 Gigabytes per second between the high-performance computer and the archive are now possible. The expansion of the data archive is part of the „High-Performance Computing System for Earth System Research (HLRE-5)“ project. The new HSM system establishes the infrastructure needed to manage the long-term data growth associated with the upcoming HLRE-5 supercomputer. Further information: www.dkrz.de/en/newhsm/

DKRZ helps shape PASC 2026

The DKRZ-team participated in PASC 2026 in Bern/Switzerland through presentations, the organization of minisymposia, and an award-winning poster contribution. The international conference brought together researchers from the fields of HPC, machine learning, and data science to discuss current developments in scientific computing. DKRZ presented contributions regarding software development, performance portability, precision optimization, and data management for Earth system models. A particular highlight was the „Best Poster Prize“ awarded to Dr. Nils-Arne Dreier; his work showcased new approaches for the efficient provision of analysis-ready datasets derived from high-resolution Earth system simulations. Further information: www.dkrz.de/en/pasc2026/



DKRZ@ISC and TOP500 ranking for DKRZ systems

More than 4,000 participants gathered at ISC High Performance (ISC'26) in Hamburg from June 22 to 26, 2026, to discuss the latest developments in HPC, AI, and quantum technologies. During the conference the latest TOP500 and Green500 lists were released: The Levante GPU extension secured rank 3 on the Green500 list, underscoring the importance of sustainable high-performance computing at DKRZ. On the TOP500 list, Levante is on rank 183. Additionally, DKRZ was once again represented on the jury for the Student Cluster Competition and presented the new HSM for its climate data archive at the Versity Software User Group Meeting. Further information: www.dkrz.de/en/isc26/

ESMO office – hosted at DKRZ – represented at UNFCCC Research Dialogue

At the 18th Research Dialogue of the UN Framework Convention on Climate Change (UNFCCC) in Bonn, Dr. Fanny Adloff – Director of the ESMO International Project Office, which is hosted at DKRZ – presented current activities

of the World Climate Research Programme. The focus was on measures to foster skills, the expansion of international scientific networks, and increasing the participation of researchers from developing and emerging economies in climate research. Through its contribution to the research dialogue, the DKRZ strengthens international exchange and advocates for equitable access to research, data, and computing resources. Further information: www.dkrz.de/en/unfccc-researchdialogue/



DKRZ at the NFDI4Earth Plenary 2026 in Dresden

Workshops, a presentation, and posters: The DKRZ team contributed several activities to the annual conference of the National Research Data Infrastructure for Earth System Sciences (NFDI4Earth) in Dresden. Topics included semantic tools, knowledge management, user support, and the long-term archiving of research data. A particular highlight was the demonstration of the Gridlook application, which allows users to interactively explore climate data on the DKRZ touch table and on their own smartphones. Additionally, the DKRZ participated in the further development of the NFDI4Earth Living Handbook and took part in discussions regarding future shared infrastructures for Earth system research.

Further information: www.dkrz.de/en/nfdi4earthplenary2026/

DKRZ at the 9th ENES HPC Workshop in Sweden

The 9th ENES HPC Workshop in Norrköping/Sweden from May 19 to 21, 2026 focussed on current developments in HPC, data infrastructures, and the use of AI for Earth system modeling. The DKRZ contributed by organizing sessions and presenting on topics such as model performance, cloud-based data workflows, and kilometer-scale climate simulations. The workshop brought together modeling experts, HPC centers, and technology providers from across Europe, fostering exchange and collaboration between the scientific community as well as software and hardware developers. Further information: www.dkrz.de/en/9enes-hpc-ws/



DKRZ welcomed international guests

Two international delegations visited DKRZ in June: representatives from the European Commission and EU ministries as part of the „Europanetzwerk Deutsch“ program, and a Chinese delegation from academia and industry. The focus was on gaining insights into DKRZ's work and exchanging views on current developments in high-performance computing, artificial intelligence, and their application in climate research. Tours to DKRZ computing hall and the data archive as well as presentations on the climate globe gave the guests a vivid impression of the HPC systems, data infrastructure, and modern climate simulations. These visits underscore DKRZ's international visibility as a partner for climate research and HPC.

Further information: www.dkrz.de/en/chin-delegation/ and www.dkrz.de/en/europanetzwerk/

DKRZyclists: Chasing kilometers in Hamburg

Once again this year, the team DKRZyclists took part in the campaign STADTRADELN (City Cycling), which promotes for greater climate protection, sustainable mobility, and a more bicycle-friendly city. Between June 4 to 24, 2026, a total of 37 active cyclists covered around 9,300 kilometers, thereby saving more than 1.5 tonnes of CO₂. On rank 87, the team once again finished among the top 100 teams in Hamburg. Particularly impressive: the two top-performing participants each covered more than 1,000 kilometers by bike.



On our own account: Open job offers at DKRZ

Do you want to join the DKRZ team – we are looking forward to your application:

- [Software Engineer with focus on development workflows](#)
- [IT Security Systemadministrator \(only in German\)](#)

General information about vacancies and working conditions at DKRZ:

www.dkrz.de/en/about-en/vacancies/

Upcoming events

DKRZ booth at the Km-Scale Global Modelling Summit from July 20 to 24, 2026 in Hamburg: <https://km-scale-summit-26.org/>

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