

30 Years of PIK – PIK Alumni Newsletter, No. 6, 07/2022

Dear PIK Alumni,

Hard to believe – but PIK is 30 years old and recently celebrated its birthday with a special event. The official celebration with invited guests was modest in scale due to the ongoing uncertainties associated with Covid. Guests at the ceremony in PIK's Trefoil building included federal and Brandenburg politicians and representatives of the Leibniz Association and other Leibniz institutes. EU Commission President Ursula von der Leyen sent a video message. Speakers included, among others, Brandenburg's Minister of Science, Research and Culture Manja Schüle, Martina Brockmeier, the new president of the Leibniz Association, State Secretary Judith Pirscher from the Federal Ministry of Education and Research, and Potsdam's Mayor Mike Schubert. You can read a full description of the event, which also included a panel discussion on "Science, climate policy and geopolitical risks" and a presentation by PIK's founding director John Schellnhuber on the history of PIK, [in our News about the celebration](#).

The ceremony was also an occasion to honour one of PIK's founding fathers and Nobel laureate Professor Klaus Hasselmann. The conference hall in the Trefoil building (A56) was dedicated to him and has been named the Hasselmann Hall.



Some photos of the ceremony are available for Alumni to view at <https://cloud.pik-potsdam.de/index.php/s/BEeGfC349YKb4g4> (password B55nwfDb). (All photos (C) of PIK/Benjamin Kriemann. Please note that the photos will be available until 31 October 2022.)

Staff members were able to follow the anniversary celebration online and at its close there was a celebration for everybody – PIK's traditional summer party! Cool drinks and teatime treats were enjoyed by a large share of PIK's around 400 staff, together with family members.

In the celebratory spirit, Alumni might like to watch some of PIK's staff talking about what makes PIK special to them. Have a look at [#MyPIKMoment](#) on the Videos / Podcast section of the PIK website. You may see some former colleagues!

There was another important landmark for the institute in the first half of this year, when PIK's seven-yearly evaluation by the Leibniz Association resulted in an [extremely positive report](#) praising the "outstanding quality" of PIK's research results across all departments and its policy advice. The work on tipping points in the Earth system, such as the Gulf Stream system in the Atlantic, on planetary waves of the jet stream and their influence on weather extremes, or on the management of the global carbon cycle and CO₂-pricing – the report highlights them all as concrete examples of the institute's "excellent research." "The full diversity of impacts of climate change" is researched, from forest fires to migration, from monsoon forecasting to supply chain disruption, from peatlands as CO₂-sinks to equity issues in climate policy. Finally, PIK's plans for a strategic expansion of its social sciences, driven in large part by the integration of our partner institute Mercator Institute on Global Commons and Climate Change (MCC) in Berlin were "supported in principle" and "very welcome".

Renovations to the Michelson Building were completed in spring 2022. The two side wings have been given ceiling-to-floor-length windows and non-original components have been removed. Two offices on the ground floor have been remodelled to serve as directors' meeting rooms and in the wings, attractive spaces have been created for staff to get together. The spring and summer have seen more members of PIK returning to their offices, and not only that: After a two-year break due to the Covid pandemic, this year PIK was again able to welcome visitors to the Michelson Building during the Long Night of Science on the Telegrafenberg.

At the same time, the war of aggression against Ukraine has launched the world into a grave political and economic situation, as we are seeing multiple crises unfold. As for PIK's core mission – climate change and its impacts – the work of our researchers is more acutely relevant than ever. PIK experts are highly in demand by policymakers. To give just two examples, this spring [Ottmar Edenhofer was elected as Chair](#) to the EU's newly established European Scientific Advisory Board on Climate Change, while the Federal Ministry for Housing, Urban Development and Building (BMWSB) appointed Hermann Lotze-Campen to its new Advisory Council for Area Development. And of course, several PIK researchers contributed substantially to both the [Working Group II report](#) and [Working Group III report](#) of the IPCC 6th Assessment Report, issued earlier this year.

PIK scientists also brief the media on subjects ranging from heatwaves to energy policy (see PIK in the Media on the [PIK website](#) to keep up with the latest interviews). Here, for instance, are [an interview \(in German\) with Michael Pahle](#), head of PIK's Climate and Energy Policy group, on how the war against Ukraine may affect Germany's coal reduction targets; [a commentary by Ottmar Edenhofer](#) on the possible cut-off of Russian gas, and [a podcast featuring Johan Rockström](#) on the urgency of the energy transition.

Publication Highlights

As ever, PIK's key products are its peer-reviewed publications. PIK researchers have published articles on a whole range of topics in the first half of 2022. Here are a few highlights.

Increase in heatwaves in western Europe linked to changes in the jet stream

In a new article in *Nature Communications*, an international team including members of the Earth System Analysis department showed that the increase in heatwaves over Europe is linked to changes in the atmospheric circulation. Large-scale winds at 5 to 10km height, the so-called jet stream, are changing over Eurasia. Periods during which the jet stream is split into two branches – so called double jet states – have become longer lasting. These double jet states explain almost all of the upward trend in heatwaves in western Europe, and around 30 percent over the larger European domain. [Read more](#)

Rainy days harm the economy

Another article dealing with severe weather events, but of a very different kind, was by Maximilian Kotz, Anders Levermann and Leonie Wenz of PIK's research department Complexity Science, who in an article in *Nature* examined the effects of rainfall changes on economic production. Analysis of data from 1500 regions over a 40-year period showed that extreme daily rainfall events turn out to be especially damaging for wealthy, industrialized countries. [Read more](#)

[Fighting poverty and protecting the environment can only work together](#)

A policy paper, published by PIK for the German Environment Ministry on the occasion of the Stockholm+50 summit in June 2022, discussed policy options for tackling multiple crises simultaneously. It argued that if the various UN Sustainable Development Goals are tackled together, this will have positive effects both for the living standards of many people and for the climate and environment. The policy paper lead-authored by Björn Soergel from research department Transformation Pathways with a large group of co-authors from across the institute, can be [downloaded from our publications database](#).

[Fungi-based meat alternatives to help save Earth's forests](#)

An analysis by PIK researchers in *Nature* projected the environmental benefits of replacing beef with microbial protein, and showed that substituting just a fifth of meat from cattle with microbial protein by 2050 could halve deforestation. The study used computer models that included middle-of-the-road projections of socioeconomic factors such as rising demand for beef, growing world population, increases in income and shifts in international trade. Isabelle Weindl and Florian Humpenöder were interviewed about their [research on the impacts of microbial meat in the Guardian](#).

In a further paper [focusing on transformation of the food system](#), a group of PIK researchers used a quantitative food and land system model to gauge the effects of degrowth and efficiency proposals on the food sector's greenhouse gas emissions. They find that combining a dietary shift, emissions pricing, and international income transfers could make the world's food system emissions-neutral by the end of the 21st century – providing at the same time a healthier nutrition for a growing world population.

Other news

10 Must Knows from Biodiversity Science

In March, experts from the Leibniz Research Network on Biodiversity, whose speaker is Kirsten Thonicke from PIK's Earth System Analysis department, published "10 Must Knows from Biodiversity Science 2022". The group present facts about biodiversity in a well-founded and generally intelligible way. They analyse the complex systems of the earth by highlighting ten key areas, each of which, in turn, is inextricably linked to all the others. And they show ways to stop the continued loss of species

diversity and ecosystems, and to promote biodiversity. The underlying aim is to provide policymakers and society with scientifically validated assessments of the latest knowledge to facilitate improved policy decisions and action at local, regional, national and global levels, in order to conserve the diversity of life – biodiversity. [Read more ...](#)

New podcast: Out of the crisis

In the latest edition of PIK's podcast "[Sustain Ability - The Potsdam Dialogues](#)", Gunnar Luderer, Lead of the Energy Systems research group at PIK, and Laura Cozzi, Chief Energy Modeler at the International Energy Agency (IEA), discuss what is needed to accelerate the clean energy transition away from fossil fuels towards renewables, especially with regard to the war against Ukraine and the resulting tensions between Russia and the West.

[All episodes of "Sustain Ability" are available here](#), while the page [PIK in Podcasts](#) also features a number of other podcasts with PIK scientists.

PIK scientists star in short film

PIK's Artist in Residence in late 2021 was the British filmmaker and author Sheila Hayman. The award-winning journalist and director of numerous documentaries used her time at PIK to produce a wonderful short film that beautifully captures the fascination with nature in conversation with a number of PIK scientists. You can [watch it here](#).

New projects with Africa

Having completed climate risk analyses several African countries, a team of scientists from RD2's 'Adaptation in Agricultural Systems' group and partners from GIZ recently [kicked off the climate risk analysis process in three new countries](#): Cameroon, Uganda and Zambia. The [AGRICA project](#) conducts climate risk analyses for adaptation planning in Sub-Saharan Africa, with each study specifically tailored to the local context and end-users' needs.

Another new project, 'Nu-Tree - Integrating nutrition and health into agroforestry projects of GIZ and NGOs in sub-Saharan Africa: A feasibility study' aims to create awareness of the nutrition and health aspects of agroforestry projects and to support their implementation and evaluation. The project, funded by the Deutsche Bundesstiftung Umwelt, will work with stakeholders representing different sectors and disciplines. [Read more ...](#)

PIK's equal opportunities policy applauded again

This year, PIK will again be awarded the TOTAL E-QUALITY certificate for the years 2022 to 2024. It will also receive the Sustainability Award, having gained the TOTAL E-QUALITY now five times in a row. The jury's decision states: "To be awarded five times is clear proof of a strong and sustainable commitment. PIK is a role model for the successful implementation of equal opportunities and diversity and in this role contributes significantly to social progress."

Forthcoming events

The Exeter/PIK conference on [Tipping Points - From climate crisis to positive transformation](#) takes place **12th – 14th September 2022** at University of Exeter (UK), co-hosted by PIK. You can check out the programme and register to join us for this unique meeting at <https://global-tipping-points.org/>. Early-bird registration is open until 08 August, with late registration closing on 21 August.

[ISIMIP-PROCLIAS Webinar Series on Water quality](#). Two further webinars in the series take place on 14 September and 4th October 2022. They deal with water quality impacts and the perspectives on food and health, and perspectives on effective solutions. You can register to participate via the website.

An international conference on [Nonlinear Data Analysis and Modeling: Advances, Applications, Perspectives](#) is being organised on the occasion of Prof. Jürgen Kurths' 70th birthday, on **15 – 17 March 2023** here on the Telegrafenberg in Potsdam. See the website for further details about this event and previous symposia.

Congratulations to ...

- **Stefan Rahmstorf**, Head of RD1 - Earth System Analysis, has received the twelfth annual Stephen H. Schneider Award for his outstanding Climate Science Communication to the public. Each year, Climate One grants the \$20,000 award to a natural or social scientist who has made extraordinary scientific contributions and communicated that knowledge to a broad public in a clear and compelling fashion. [Read more ...](#)
- **Leonie Wenz**, Head of the working group on 'Data-based analysis of climate decisions' and deputy head of research department Complexity Science, has been elected as a member of German Young Academy (Junge Akademie) at the Berlin-Brandenburg Academy of Science and National Academy of Sciences Leopoldina.
- **Barbora Sedova**, who co-heads the FutureLab on Security, Ethnic Conflicts and Migration at PIK was awarded the University of Potsdam's Michelson Prize for the most outstanding doctoral dissertation of the year 2021. Barbora's dissertation examined the 'Heterogeneous Effects of Weather and Climate Change on Human Migration'. [Read more](#)
- **Jürgen Kurths** has won the Guillemin-Cauer Best Paper Award 2022 of the IEEE Circuit and Systems Society, along with co-authors, for his paper 'Dynamic Analysis of Digital Chaotic Maps via State-Mapping Networks'.
- **The winners of the Friends' Dissertation and Talents Awards:** At this year's Research Days, the Society of the Friends and Promoters of PIK again awarded a prize for an outstanding PhD dissertation from the past two years. The prize was won by [Sara Minoli from RD2 for her dissertation](#) "Managing phenology for agronomic adaptation of global cropping systems to climate change".
- Additionally, the Friends of PIK for the first time also awarded prizes to "Young Talents" at PIK for the Best Paper of the Year. The prizes went to **Sara Ansari**, postdoc in RD4, for her paper "Moving the epidemic tipping point through topologically targeted social distancing" while **Maximilian Kotz**, a doctoral researcher also from RD4, received the prize as first author of the paper "Day-to-day temperature variability reduces economic growth".

PIK's Alumni programme

In the last couple of years Alumni have talked to doctoral researchers and postdocs at their respective PhD and Postdoc days. Recently we also included an alumni talk in our Science & Pretzels series: Jascha Lehmann and Boris Prah from MSCI talked about their pathways from doctoral researchers at PIK to conducting climate risk research at a leading finance company.

Please keep us up to date: Send an update to alumni@pik-potsdam.de if you have changed your job or want to update your details in our Alumni database. We'd also welcome news about *your recent publications, personal achievements, or research activities*.

Best wishes to all!

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IMPRESSUM

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NEWSLETTER

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If you have moved to a new job or your contact details have changed, please let us know by sending an email to alumni@pik-potsdam.de.

DATA PROTECTION STATEMENT

We use your data to keep in touch with you as Alumni, to provide you with occasional news about the Potsdam Institute and its activities, and to send targeted information about scientific and other events. PIK's full [privacy policy](#) can be found on the PIK website (Section 7.2. relates to Alumni). If you have any concerns or queries about the use of your personal data, please contact us.

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