

Leading science competition identifies 19 breakthrough solutions with greatest potential to tackle planetary crisis

The Frontiers Planet Prize names 19 National Champions – scientists offering scalable solutions to help keep humanity safely within planetary boundaries.

SWITZERLAND, April 21, 2025 /EINPresswire.com/ -- The [Frontiers Planet Prize](#) has today announced 19 National Champions from science research teams across five continents – exceptional scientists with breakthrough solutions that can be scaled up to keep humanity safely within planetary boundaries. As the world's largest science competition to enhance planetary health and mobilize the academic community, the prize fast-tracks innovation, impact and emphasizes the urgency of action required.

The National Champions have been selected by 100 independent experts – the [Jury of 100](#) – renowned sustainability and planetary health leaders, chaired by Professor Rockström. The National Champions will now move forward to the final round of the competition, with three International Champions unveiled in June and awarded 1 million USD each to scale up their research.

The 19 National Champions represent a diverse group of researchers at various stages of their academic careers, who have published groundbreaking articles that put forward unique, transformative solutions to stop humanity crossing the planetary boundaries.

With no time to waste in the current climate crisis, their research focuses on a range of areas including climate change mitigation, community health, and planetary resilience, through which they offer solutions such as optimized carbon capture technologies, enhanced modeling and early-detection systems, and sustainable policy frameworks. All with the aim to mobilize and inspire individuals to actively contribute towards overcoming current planetary health challenges.

Led by Professor Johan Rockström, the planetary boundaries framework presents a set of nine limits within which humanity can continue to develop and thrive for generations to come. Crossing these boundaries increases the risk of generating large-scale abrupt or irreversible environmental changes. With no place to hide in the planetary crisis, the scientific innovations needed are crucial for our collective responsibility for healthy lives on a healthy planet.

Professor Jean-Claude Burgelman, Director of the Frontiers Planet Prize said: "Faced with immense threats to people and planet, we need bold, transformative solutions, rooted in evidence and validated by science. Innovative yet scalable solutions are the only way for us to ensure healthy lives on a healthy planet. By spotlighting the most groundbreaking research, we are helping scientists bring their work to the international stage and provide the scientific consensus needed to guide our actions and policies."

A direct response to the urgent need for faster global scientific consensus, the prize has already engaged with more than 10,000 active researchers, 23 academies of science, and over 600 leading universities and research institutions from 62 countries, to bring forward transformational and globally scalable research from around the world, with a focus on enabling healthy lives on a healthy planet.

The full list of the 2025 National Champions, categorized by their solutions, is as follows:

Nature-based solutions and ecosystem restoration

- Germany: Prof Dr Robert Arlinghaus, Leibniz Institute of Freshwater Ecology and Inland Fisheries, Ecosystem-based management outperforms species-focused stocking for enhancing fish populations
- Italy: Dr Giovanni Forzieri, University of Florence, Ecosystem heterogeneity is key to limiting the increasing climate-driven risks to European forests
- Japan: Prof Paola Laurino, Okinawa Institute of Science and Technology, The ultra-high affinity transport proteins of ubiquitous marine bacteria
- Sweden: Prof Zahra Kalantari, KTH Royal Institute of Technology, Contribution of prioritised urban nature-based solutions allocation to carbon neutrality
- United States: Dr Zia Mehrabi, University of Colorado Boulder, Joint environmental and social benefits from diversified agriculture

Climate change mitigation and carbon sequestration

- Argentina: Dr Rafael Pedro Fernandez, Institute for Interdisciplinary Science (ICB-CONICET), Natural short-lived halogens exert an indirect cooling effect on climate
- Israel: Dr Uria Alcolombri, The Hebrew University of Jerusalem, Microbial dietary preference and interactions affect the export of lipids to the deep ocean
- Malaysia: Dr Vincent Woon Kok Sin, Xiamen University Malaysia, Curbing global solid waste emissions towards net-zero warming futures
- Thailand: Prof Shabbir Gheewala, King Mongkut's University of Technology Thonburi, Absolute environmental sustainability assessment of rice in Pakistan using a planetary boundary-based approach

Community health and environmental justice

- Australia: Dr Arunima Malik, The University of Sydney, Polarizing and equalizing trends in international trade and Sustainable Development Goals
- Mexico: Dr Fabiola Sosa Rodriguez, Autonomous Metropolitan University, Construction of wetlands in La Piedad Lagoon: a strategy to mitigate climate change in Mexico
- Netherlands: Prof Sjak Smulders, Tilburg University, Accounting for the increasing benefits from scarce ecosystems
- New Zealand: Dr Sebastian Steibl, University of Auckland, Rethinking atoll futures: local resilience to global challenges
- Poland: Dr Nicoletta Makowska-Zawierucha, Adam Mickiewicz University, Arctic plasmidome analysis reveals distinct relationships among associated antimicrobial resistance genes and virulence genes along anthropogenic gradients
- Saudi Arabia: Prof Carlos Duarte, King Abdullah University of Science and Technology, A tide of change - what we can learn from marine conservation successes
- United Kingdom: Dr Marina Romanello, University College London, The 2023 report of the Lancet Countdown on health and climate change: the imperative for a health-centred response in a world facing irreversible harms

Water systems and planetary resilience

- Austria: Prof Günter Blöschl, Vienna University of Technology, Megafloods in Europe can be anticipated from observations in hydrologically similar catchments
- Canada: Dr Suzanne Tank, University of Alberta, Recent trends in the chemistry of major northern rivers signal widespread Arctic change
- China: Prof Xing Yuan, Institute of Atmospheric Physics, Chinese Academy of Sciences, A global transition to flash droughts under climate change

As National Champions, each researcher will have the opportunity to share their award-winning research through national and international conferences to facilitate the systemic change needed to safeguard our planet's health. This is made possible through the support of the Prize's strategic partners, including Future Earth, the Potsdam Institute of Climate Research Impact, the International Science Council, and the [Villars Institute](#).

The Frontiers Planet Prize Award Ceremony will take place on 17 June 2025 at the Villars Symposium in Villar-sur-Ollon, Switzerland. Hosted by the Villars Institute, the Symposium brings thought leaders from policy, practice, and philanthropy together. In line with the theme of this year's award ceremony, "No place to hide," each Champion will present their research and engage with key planetary health figures across academia, policy, business, and non-governmental agencies, all of whom have the capability to shape policy and influence civil society.

Will Kirk
Forster Communications
[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/805123437>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2025 Newsmatics Inc. All Right Reserved.