



Frontiers Planet Prize 4th edition

Mobilizing science for a global green renaissance: 3 prizes of 1 million US dollars awarded annually to accelerate and scale up breakthrough research to get humanity back into the safe operating space of our planet.



Table of contents

Mission	3
Context	4
Process	5
Timeline	6
Scientific criteria	7
Jury mandate	7



Mission

The Earth's system is rapidly approaching its planetary boundaries. There is a broad consensus amongst scientists that human activity is the primary driver of these breaches, and the time needed to protect and restore planetary health is slipping away.

Pulling back from these boundaries, averting tipping points and critical thresholds, will require new urgency from societal institutions and leaders across the world. To secure a healthy planet we will need a deep understanding on the mechanics of our earth system, as well as scientific solutions – and action – at pace and at scale.

The **Frontiers Research Foundation**, a not-for-profit foundation based in Switzerland, launched a new international science competition in 2022. It has the simple but significant ambition to directly address the planetary crisis, by mobilizing the scientific community engaged in breakthrough research with the greatest potential to stabilize the planet's ecosystem. Each edition awards **3 scientists with 1 million US dollars** to accelerate and scale up their research.

The prize aims to emulate the passion and pride of the Olympic Games by unleashing the competitive spirit of researchers – who are supported by their universities and nations – to get the world to sit up, listen, and act on the profound planetary environmental threats we face. This, in turn, helps accelerate the process of reaching a scientific consensus, something crucial to achieve quickly and resolutely as time marches on. History has shown that once consensus is achieved - such as with ozone depletion or lead in gasoline governments, industries, and societies implement decisive action.

Since it's launch on Earth Day, 2022, the prize has engaged 610 institutions and 20 academies of science, across 62 countries, and over 10,000 scientists through their participation as coauthors of nominated articles. The international expert Jury of 100, who worked independently to select and recognize thought leaders, nominated 43 National Champions, and 7 International Champions to date. The International Champions were each awarded 6.6 million US dollars, across the first and second edition of the prize, to accelerate, scale up, and amplify the impact of their research.

Earth Day 2025 (22nd April), marks the announcement of the National Champions from the third edition, and the launch of the fourth edition of the prize. It has the same mission: to select, recognize and reward exceptional scientists whose work provides actionable solutions that contribute to help navigate and secure humanity's future in the Anthropocene.





:O:

Context

Earth system scientists have identified nine planetary boundaries, beyond which irreversible changes to the planet may occur. A core principle of **The Frontiers Planet Prize** is its commitment to addressing the breach of these boundaries through breakthrough scientific research.

These planetary boundaries have been described in detail by Johan Rockström and Owen Gaffney in their book and documentary on Breaking Boundaries. Planetary boundaries paint a clear picture of the challenges humanity faces and The Frontiers Planet Prize, believe they should spur a call to action. The Frontiers Research Foundation is rallying behind that call.

The prize will honor research – published in peer-reviewed journals over the past 2 calendar years prior to the launch of each edition– that has the greatest potential to help keep the earth system stay within these boundaries, while contributing to our understanding of each boundary. It is awarded by the Frontiers Research Foundation.

All domains of science will be considered, as long as they contribute to a better understanding of the planetary boundaries and present scalable breakthroughs leading to solutions to safeguard the planet. The focus of the research, leading to an actionable solution, could be, for example, a deeper understanding of the interactions and feedbacks defining planetary boundaries; the implications of inaction for the state and resilience of the Earth's system; technical solutions to be deployed at earth system scale; or planetary justice that opens transformative pathways for a world developing within planetary boundaries.





consideration.

frontiers research foundation

민

Process

The Frontiers Planet Prize aims to combat the planetary crisis at a global level by fostering a passionate competition between scientists, universities, and nations to fund and develop science that provides potential actionable solutions to the global environmental threats we face.

All invited universities and research institutions register with us as a National Nominating Body (NNB), which opens Prize eligibility to their institution. The NNB committee then reaches out to the lead scientists of the most promising research articles and invite them to apply via the application form supplied by the Frontiers Research Foundation.

The National Nominating Body will select its top three candidates from these applications and forward them to the national academy serving as its National Representative Body (NRB). NNBs submit their nominations to their NRB at the beginning of November 2025*.

*Please note that this date may vary depending on the timeline of each National Representative Body'

From this pool of candidates, the National Representative Body will select three National Nominees to submit to the Planet Prize Jury of 100 by the beginning of December 2025.

The international Jury of 100, chaired by Professor Johan Rockström, will evaluate these National Nominees based on the importance and relevance of their proposed breakthrough solution or insight. The jury will vote for one National Champion from each participating country, and then from among these selected National Champions, it will vote to select the three International Champions to win the 2025 Frontiers Planet Prizes. Note that while all countries that participate are eligible to have a National Champion, this decision, as well as the selection, is managed by the Jury of 100.

The National Champions will be announced on Earth Day 2026 (22nd April). The International Champions will be announced at the Award Ceremony taking place in Spring 2026, each of whom will be awarded with 1 million US dollars.



Nominees

published article and selects

the National Champions.



Timeline







Scientific criteria

The Frontiers Planet Prize will be awarded to the best research published in established peer-reviewed scientific journals, with robust peer review and transparent publication procedures. The acceptance date of the article must fall within the 2 years prior to the launch of the competition (date of acceptance: 1 November 2023 to 31 October 2025). Scientific excellence is the default principle to participate in the Frontiers Planet Prize, with each nomination providing actionable solutions to bring us back into the safe operating space of the 9 planetary boundaries. The Frontiers Planet Prize accepts articles published in scientific journals from all around the world with robust peer review and transparent publication procedures.

We welcome breakthrough science across all disciplines on condition it is focused on Planetary Boundaries and presents original research findings or insightful reviews and syntheses.

For contributions to be considered for the Frontiers Planet Prize, the following criteria must be:



actionable solutions or pathways that can be implemented in policies, adapted commercially, or otherwise contribute to keep global development within Planetary Boundaries. The research advances the scientific understanding and quantification of Planetary Boundaries. It explores how Planetary Boundaries are affected or impact life support systems/the Earth system or investigates the implications of adopting Planetary Boundaries thinking across disciplines, sectors and activities/applications



The research must connect to several Planetary Boundaries at the Earth system scale. Research that explores interactions/relations between multiple Planetary Boundaries will be prioritized.

Jury mandate

The Frontiers Planet Prize Jury of 100 will decide in full autonomy on the selection of the National Champions, and the International Champions. This means the Jury's task is twofold:

- After receiving three nominations from each National Representative Body, the Jury of 100 votes for the best scientific contribution in each participating country.
- 2. During a second round of voting, the Jury of 100 will then select three International Champions, from among the National Champion cohort.

The Jury of 100 works as an independent community of planetary boundary experts.

In the case of any conflicts of interest, jury members will be asked to declare their conflict and abstain during any proceedings related to a specific contribution. Note the Frontiers Planet Prize does not guarantee a National Champion for each participating country. This decision, along with the selection process, is managed independently by the jury of 100.

Mobilizing science for a global green renaissance

Prof Dr Jean-Claude Burgelman, Director, Frontiers Planet Prize

Jean-claude.burgelman@frontiersplanetprize.org

Dr Gilbert De Gregorio, Associate Director

Gilbert.degregorio@frontiersplanetprize.org