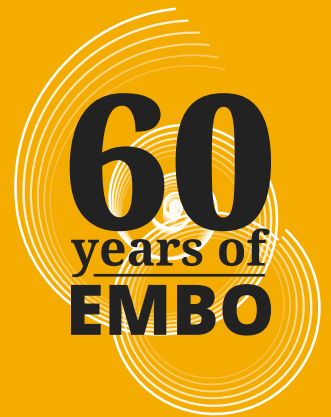


Partnerships between funders and researchers for sustainability

FlyingLess – 25 Nov 2024

Philipp Weber, PhD
EMBO Sustainability Officer



EMBO: Promoting excellence in the life sciences



EMBO Membership

More than 2,000 leading life scientists in Europe and beyond



Programmes and activities

EMBO Fellowships, EMBO Young Investigator Network, Courses and workshops, Global activities and Policy



Publishing

The EMBO Journal, EMBO Reports, Molecular Systems Biology, EMBO Molecular Medicine, Life Science Alliance, Review Commons

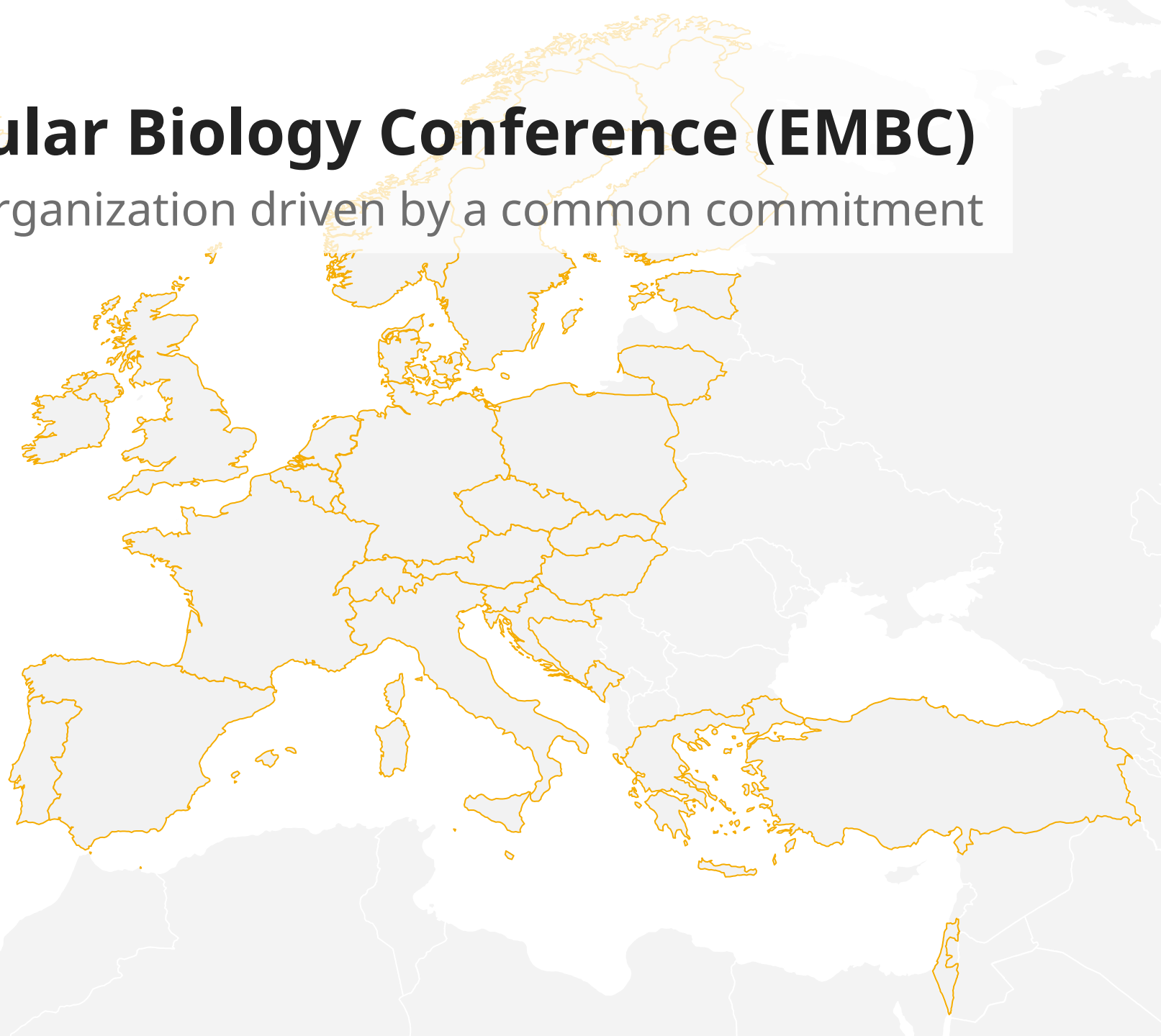
European Molecular Biology Conference (EMBC)

An intergovernmental organization driven by a common commitment

31 Member States in Europe
Associated: India, Singapore,
Taiwan, Chile, Japan



EMBO Programmes

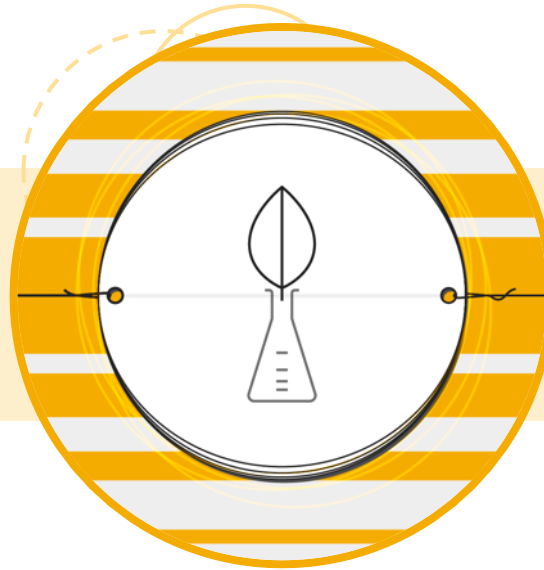


Promoting sustainability in the life sciences



**Fostering partnerships and
shaping policies**

*The Heidelberg Agreement
22 October 2024*



**Promoting sustainable
excellence**

*EMBO Lab Sustainability
Award 2024*



**Shaping the future of
conferencing**

*Sustainable conferencing badge
2024*

Workshop: Funders' role in promoting environmentally sustainable research

Attending Organizations

Funders

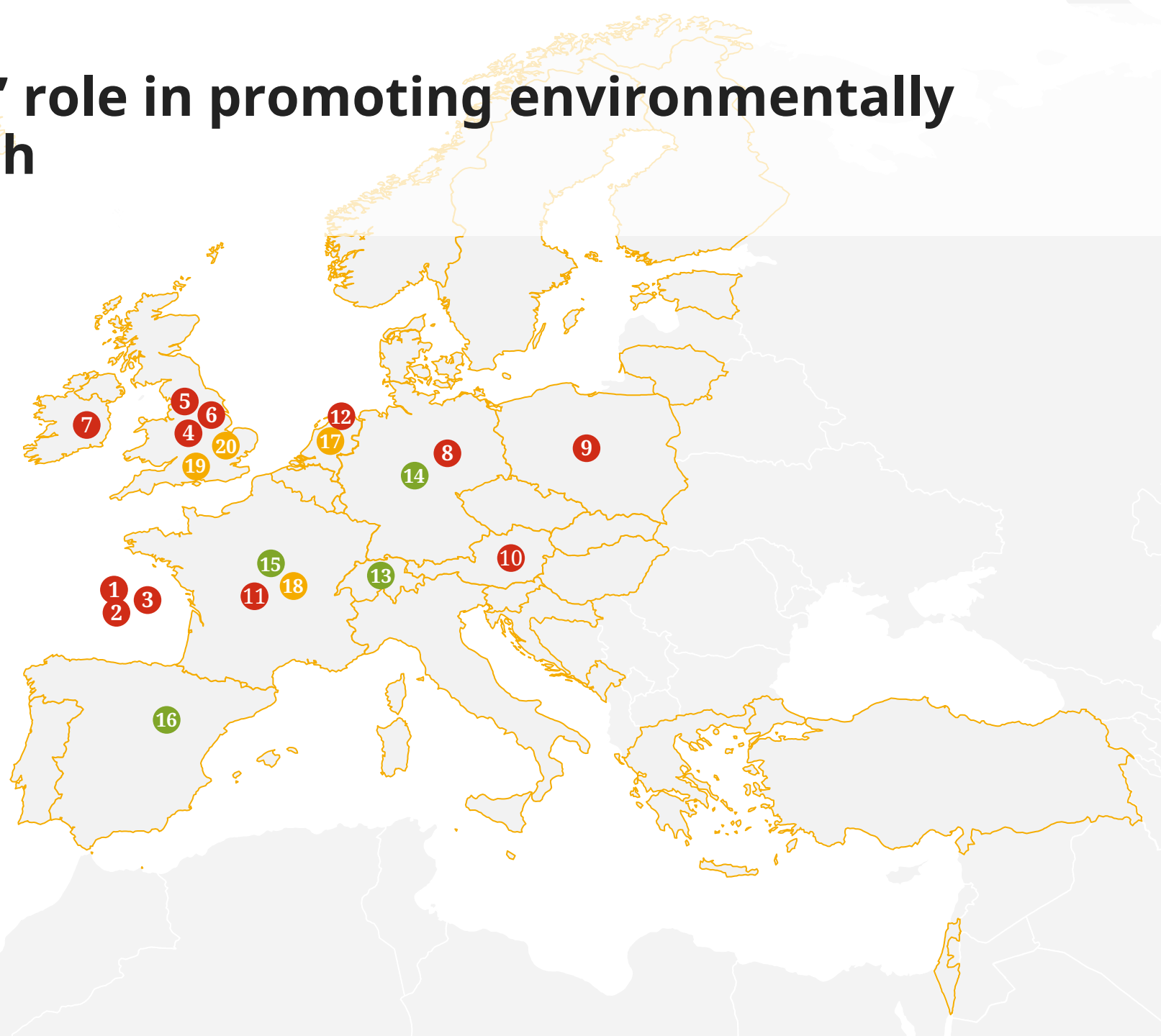
- 1 EC
- 2 ERC
- 3 EMBO
- 4 UKRI/MRC
- 5 Wellcome
- 6 CRUK
- 7 RI
- 8 DFG
- 9 FNP
- 10 FWF
- 11 ANR
- 12 NWO

Research organizations

- 13 EPFL
- 14 EMBL HD
- 15 CNRS
- 16 BIST/IBEC

Multi stakeholders

- 17 GLN and SELs
- 18 Labos 1.5
- 19 Green Algorithms
- 20 King's College



How can we successfully integrate sustainability considerations into funding schemes?



DFG





Anchoring sustainability considerations in DFG funding activities

- From **1 September 2024** a **reflection** on ecological sustainability is mandatory in DFG application forms.
- Suggested categories include **travel activities**
- The information provided will be taken into account when the decision on the proposal is made – not as a discipline-specific assessment, but as **a plausibility check**.

“It is important for people to learn from each other in this area, given that it is new to everyone involved...”

“...close dialogue between actors in the research system will be important...”





Wellcome sets environmental sustainability standards for researchers

- Wellcome - 'Environmental Sustainability' policy April 2024
- **Labs:** lab-based environments are required to achieve the minimum level of accreditation (LEAF and My Green) by the end of 2025
→ **responsibility on researchers and institutions**
- Researchers can include the relevant costs in their applications.
- **Travel:** Wellcome will only fund essential travel related to our funded research, and all travel must be justified.
→ **usage of air travel justification tools (e.g., eauc)**
- Organisations in high-income countries must sign up to the UK Concordat for Environmental Sustainability in R&I



Environmental sustainability policy

While research and innovation are vital to understanding life and finding solutions to the health challenges facing everyone, health research has an impact on the environment and can contribute to climate change. Wellcome will only fund research that is conducted responsibly. To be responsible, research must be conducted in an environmentally sustainable way.

This policy sets out our expectations for organisations and researchers receiving Wellcome funding to follow sustainable research practices.

What we expect from the people we fund

Wellcome sets environmental sustainability standards for researchers

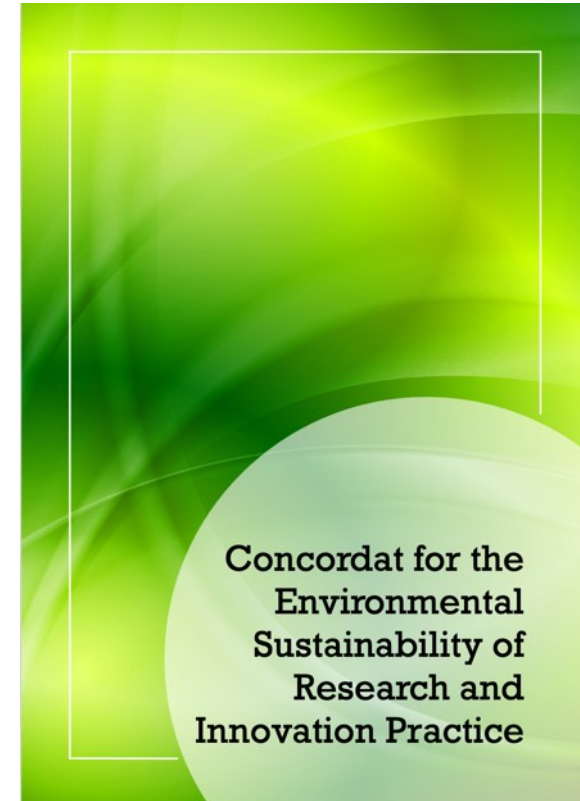
- Wellcome - 'Environmental Sustainability' policy April 2024
- **Labs:** lab-based environments are required to achieve the minimum level of accreditation (LEAF and My Green) by the end of 2025
→ **responsibility on researchers and institutions**
- Researchers can include the relevant costs in their applications.
- **Travel:** Wellcome will only fund essential travel related to our funded research, and all travel must be justified.
→ **usage of air travel justification tools (e.g., eauc)**
- Organisations in high-income countries must sign up to the UK Concordat for Environmental Sustainability in R&I





Wellcome sets environmental sustainability standards for researchers

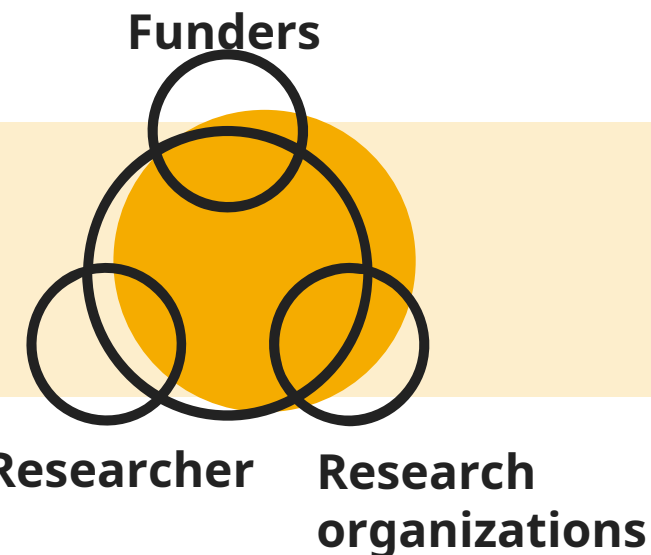
- Wellcome - 'Environmental Sustainability' policy April 2024
- **Labs:** lab-based environments are required to achieve the minimum level of accreditation (LEAF and My Green) by the end of 2025
→ **responsibility on researchers and institutions**
- Researchers can include the relevant costs in their applications.
- **Travel:** Wellcome will only fund essential travel related to our funded research, and all travel must be justified.
→ **usage of air travel justification tools (e.g., eauc)**
- Organisations in high-income countries must sign up to the UK Concordat for Environmental Sustainability in R&I



Challenges and questions for funders

Funders

- How do we **weigh the environmental footprint**?
- How **can we be fair** to all fields of research?
- Where do we get the **expertise** from?
- How can we design an **adaptive process**?
- How does this affect **academic freedom**?
- How can we **prevent adding more pressure** on researchers?
- How can we **prevent that it becomes just a compliance-based** approach (copy-paste exercise to feel morally light)?
- ...



→ **Need feedback from researchers and organizations**

Challenges and questions for researchers and organizations

Research organisations

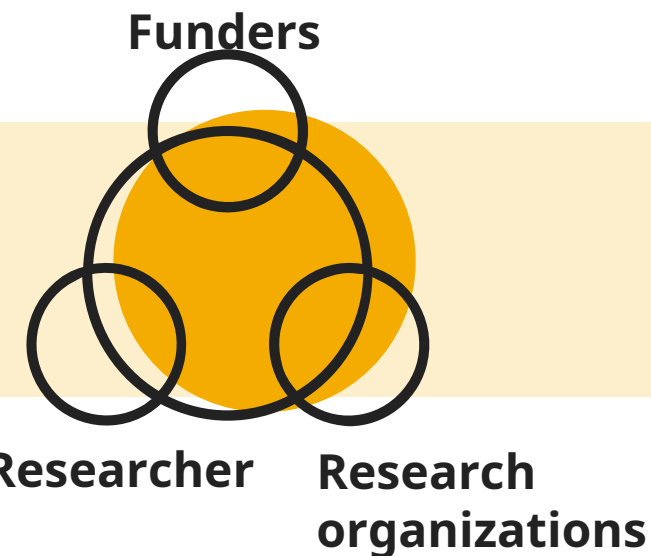
- Where do we get the **expertise** from?
- How can we understand the **environmental footprint (GHG, biodiversity)** of our research?
- ...

→ **Need support from funders and researcher**

Researcher

- How do we deal with the **different, changing requirements** imposed by the various funders?
- Where do we get the **time, tools and expertise** from?
- ...

→ **Need support from research organisations and funders**



Organizations agreed that...

1. Funders cannot risk doing nothing.
2. Funders should set ambitious goals.
3. Funding agencies should share a set of principles towards sustainability.
4. Funders should highlight the importance of sustainability in their funding schemes.
5. Funders should support the coordinated development and adoption of education, quantification and accreditation tools.
6. Funders should involve researchers and research organizations.

Heidelberg Agreement on Environmental Sustainability in Research Funding published 22 October

<https://doi.org/10.5281/zenodo.13938809>



The Heidelberg Agreement on Environmental Sustainability in Research Funding

Philipp M. Weber^{1,2*}, Sandra Bendiscioli^{1,2*}, Gerlind Wallon¹, Uwe von Ahsen², Anne Marie de Beaufort³, Marion Boland⁴, Florijn Dekkers⁵, Dominique Dunon-Bluteau⁶, Martin Farley⁷, Alyson Fox⁸, Stéphane Guillot⁹, Loïc Lannelongue¹⁰, Marta Łazarowicz-Kowalik¹¹, Brendan Rouse¹², Gabrielle Samuel¹³, Teresa Sanchis¹⁴, Susan Simon¹⁵, Mathew Tata¹⁶, Gisou van der Goot¹⁷ and Fiona M. Watt¹

Preamble

If we want to provide the basis for future generations to prosper, we need an urgent shift towards a culture of sustainability^a. At this critical time, the science sector is recognizing its important role in promoting sustainability and the need to understand its own environmental and social impacts.

Funding agencies play a central role in enabling researchers to conduct their work. Funders' strategic decisions can influence which questions are tackled by researchers. By setting conditions for their funding schemes, funders can change research practice towards sustainability. The responsibility of funding agencies to support the United Nations' 2030 Agenda for Sustainable Development was recently highlighted by the Global Research Council's Statement of Principles on Sustainable Research¹. To explore how funders can incentivise sustainable practices in research, they should align their goals and actions and enter a dialogue with researchers and their institutions.

The Heidelberg Agreement, a multi-stakeholder alignment, is the outcome of discussions at an EMBO workshop on *Funders' Role in Promoting Environmentally Sustainable Lab Research*² that took place in Heidelberg in May 2024. For the first time, a group of representatives from funding agencies, research organisations, grassroots initiatives, social scientists and experts from nine different European countries (see Participant list on page 5) worked together to agree on principles and recommendations for research funders on how to embed sustainable practices via research funding. The workshop discussions focused on sustainability in life science laboratory research. However, the outcomes represent general considerations and principles that can be applied more broadly to all research areas. The Heidelberg Agreement is not intended to be, and shall not constitute in any way, a binding or legal agreement, or impose any legal obligation or duty.

^a In future, we, the authors, envision a culture of sustainability that has only a positive impact on people and the planet. This vision is in line with the globally recognized aspirations of the 2030 UN Agenda and its sustainable development goals, which encompass social, environmental and economic considerations.

The Heidelberg Agreement was endorsed by the following European organisations attending the workshop:

Austrian Science Fund (FWF), Dutch Research Council (NWO), EMBO, European Molecular Biology Laboratory (EMBL), Foundation for Polish Science (FNP), French National Research Agency (ANR), German Research Foundation (DFG), Green Algorithms Initiative, Green Labs Netherlands (GLN), Institute for Bioengineering of Catalonia (IBEC), Medical Research Council (MRC), National Centre for Scientific Research (CNRS), UK Research and Innovation (UKRI) and Wellcome.

- ¹ EMBO, Heidelberg, Germany
- ² Austrian Science Fund (FWF), Vienna, Austria
- ³ Dutch Research Council (NWO), The Hague and Utrecht, The Netherlands
- ⁴ Taighde Éireann - Research Ireland, Dublin, Ireland
- ⁵ Green Labs Netherlands Foundation (GLN) and UMC Utrecht, Utrecht, The Netherlands
- ⁶ French National Research Agency (ANR), Paris, France
- ⁷ UK Research and Innovation (UKRI), London, UK
- ⁸ Wellcome, London, UK
- ⁹ National Centre for Scientific Research (CNRS), Paris, France
- ¹⁰ University of Cambridge and Green Algorithms Initiative, Cambridge, UK
- ¹¹ Foundation for Polish Science (FNP), Warsaw, Poland
- ¹² European Molecular Biology Laboratory (EMBL), Heidelberg, Germany
- ¹³ King's College London, London, UK
- ¹⁴ Institute for Bioengineering of Catalonia (IBEC), Barcelona, Spain
- ¹⁵ UK Research and Innovation (UKRI) and Medical Research Council (MRC), London, UK
- ¹⁶ Cancer Research UK (CRUK), London, UK
- ¹⁷ École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland

* Correspondence: philipp.weber@embo.org and policy@embo.org

Authors are listed in alphabetical order except the first three authors who contributed equally. The views expressed are those of the authors and do not necessarily reflect the views of their organisations.

Why is it important that funders and researchers evaluate and, when necessary, coordinate the development of tools?

Box 2 Requirements for sustainable tools for researchers^f

- › Free to use for the research community
- › Open source
- › User-friendly and scalable for institutions
- › Independently tested and reviewed
- › Regularly evaluated and updated

Some of the current promising tools including lab certification programmes lack transparency and are not open access.

FlyingLess ticks all the boxes!

Box 2 Requirements for sustainable tools for researchers^f

- › Free to use for the research community
- › Open source
- › User-friendly and scalable for institutions
- › Independently tested and reviewed
- › Regularly evaluated and updated

Was macht FlyingLess?



FlyingLess ticks all the boxes!

Box 2 Requirements for sustainable tools for researchers^f

- › Free to use for the research community
- › Open source
- › User-friendly and scalable for institutions
- › Independently tested and reviewed
- › Regularly evaluated and updated

Was macht FlyingLess?



Integrating tools for air travel reductions such as FlyingLess in funding schemes?

We don't know how we will get there, but we do know that we can only achieve this together



Martin Farley (UKRI) and Anne Marie de Beaufort (NWO)