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All European
Academies

Towards climate sustainability in the academic system in Europe and beyond

APRIL 20, 2023

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(DIE JUNGE AKADEMIE & UNIV. OF SOUTHERN DENMARK)

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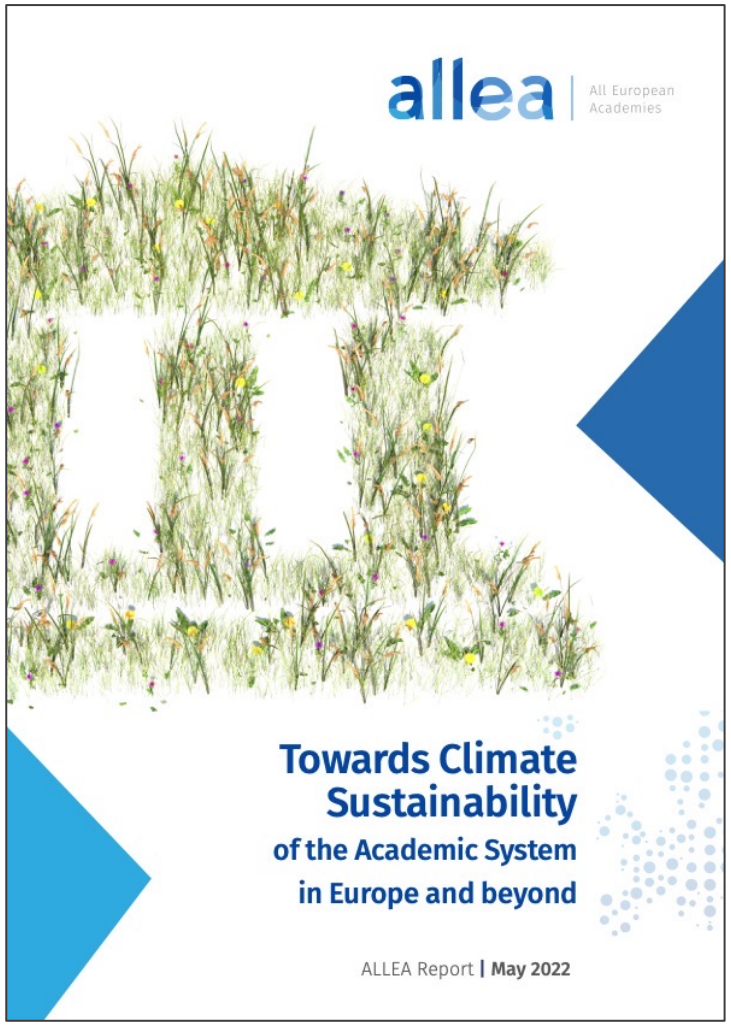
ALLEA working group on climate sustainability in the academic system



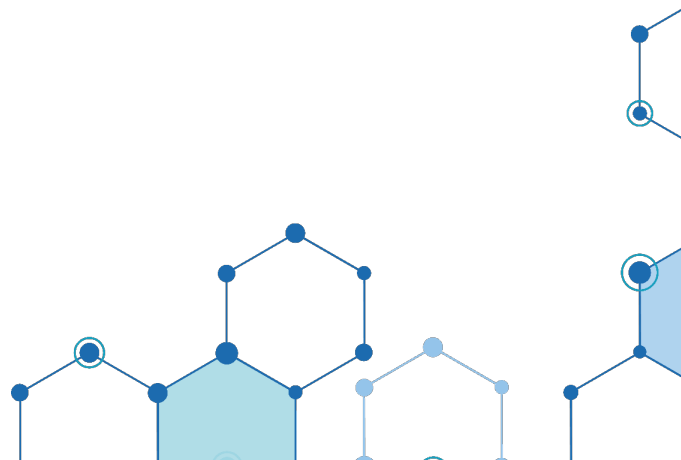
- ALLEA: European Federation of Academies; member academies from about 40 countries; working groups on topics in evidence-based policy advice and in science policy

- Report published May 5, 2022
- Available at:

  DOI: 10.26356/climate-sust-acad

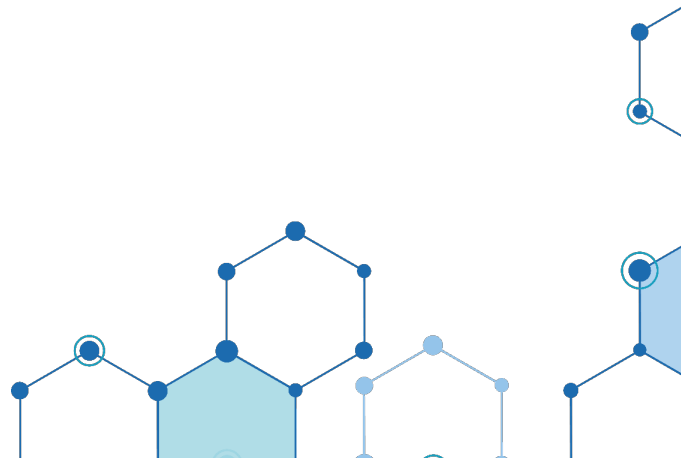
or at www.allea.org

Three key messages:



Three key messages:

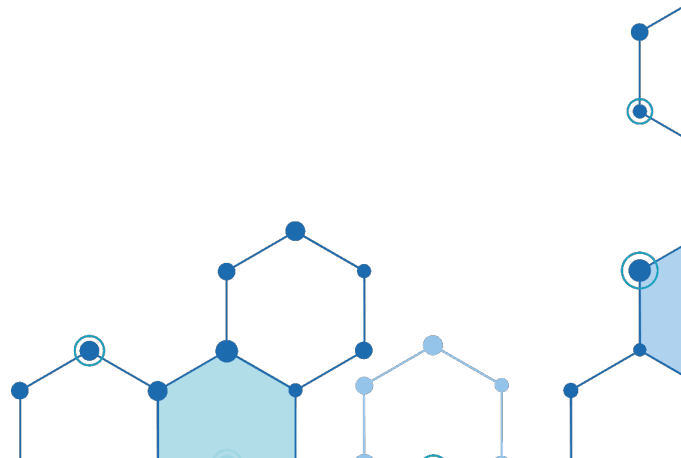
- The academic system is currently not climate sustainable.



Three key messages:

- The academic system is currently not climate sustainable.

- Individual stakeholders are taking first steps towards climate sustainability.



Three key messages:

- The academic system is currently not climate sustainable.
- Individual stakeholders are taking first steps towards climate sustainability.
- There are many options of action available right now for all stakeholders to become more climate sustainable.

The academic system in the context of the climate crisis

- Academia is part of the solution
  through research, education, evidence-based policy advice

- Academia is part of the problem
  through emissions from own operations

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300 Gigatons CO_2 emissions ``remaining" for 83 % chance to limit global warming below 1.5 degrees $\rightarrow$ 1 t per capita per year until 2050

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Stakeholders:

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- Research institutes
- Students
- Individual academics
- Funding organizations
- Conference organizers
- Academies, learned societies
- Ranking agencies
- Policy makers

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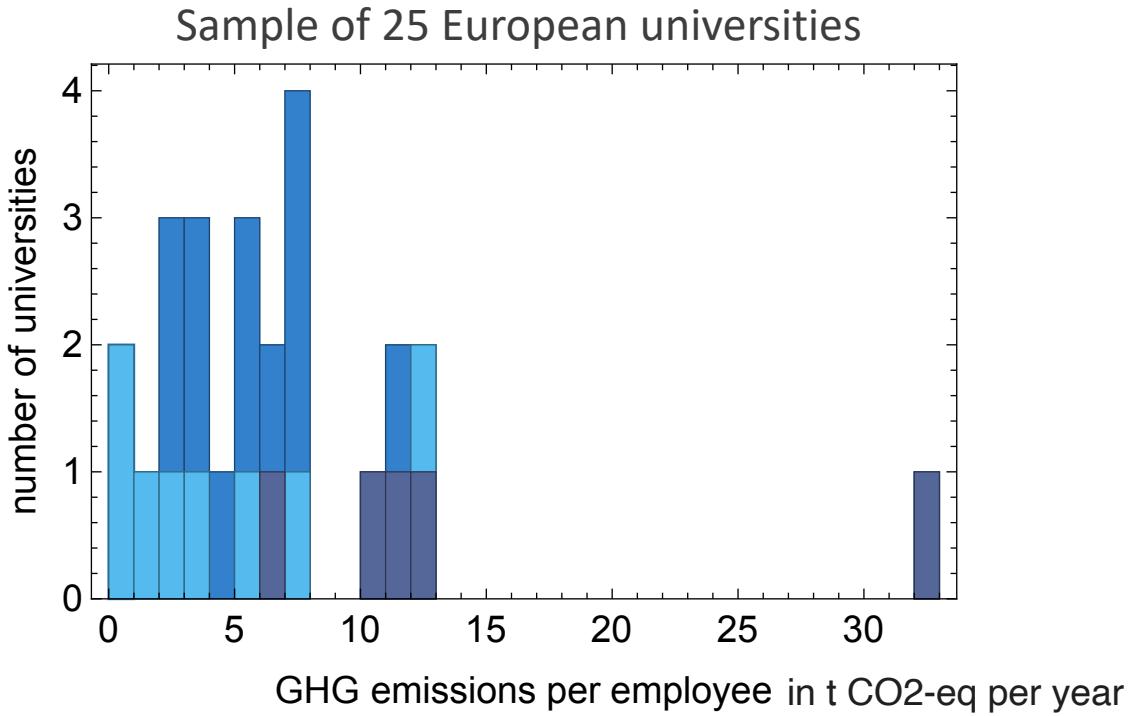

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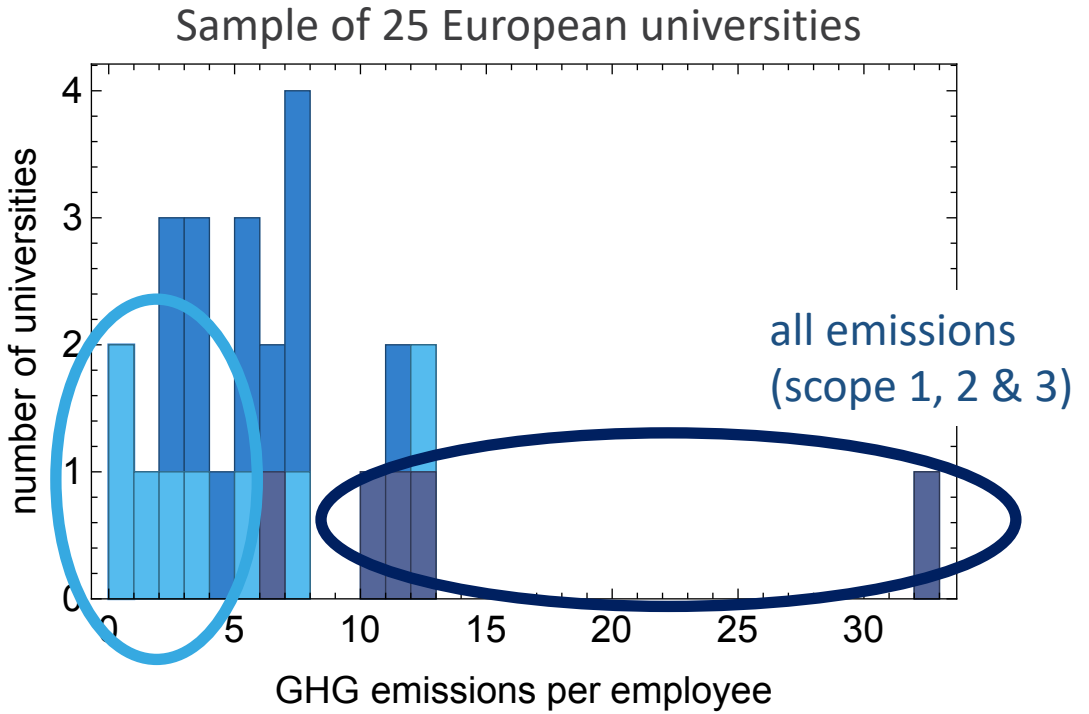

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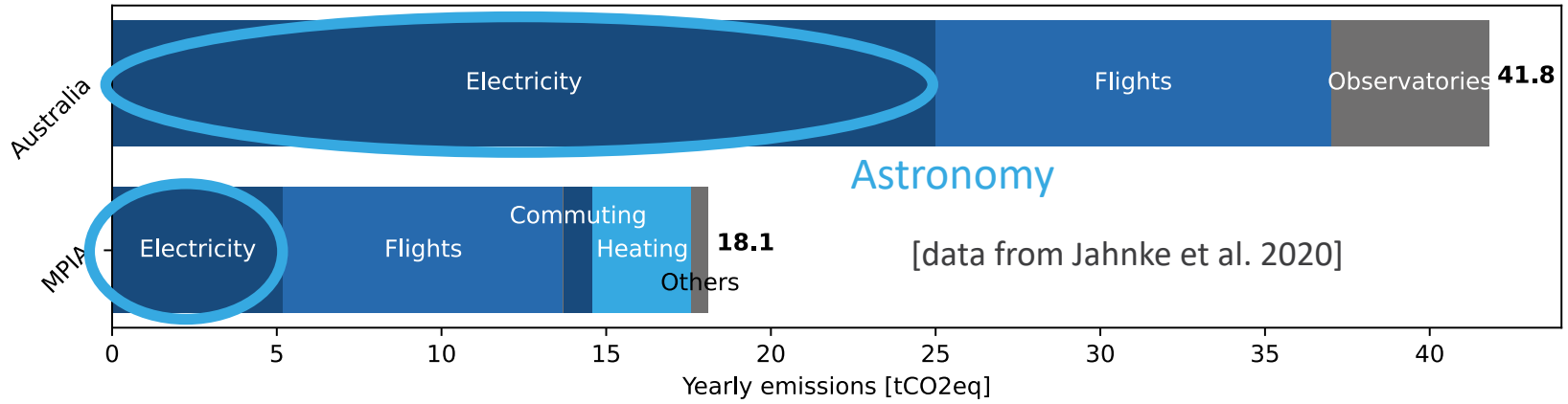

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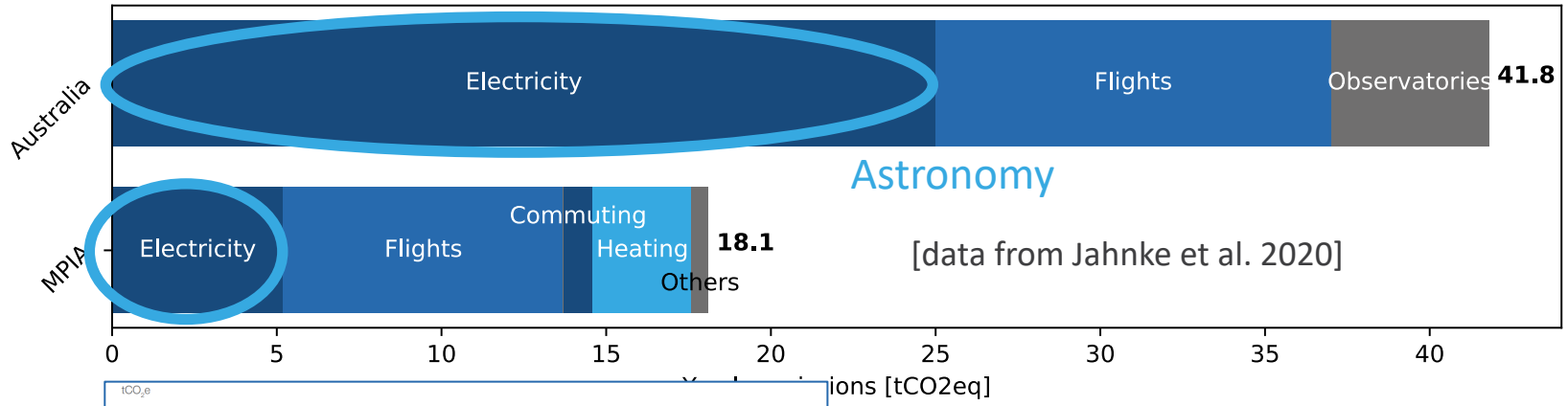
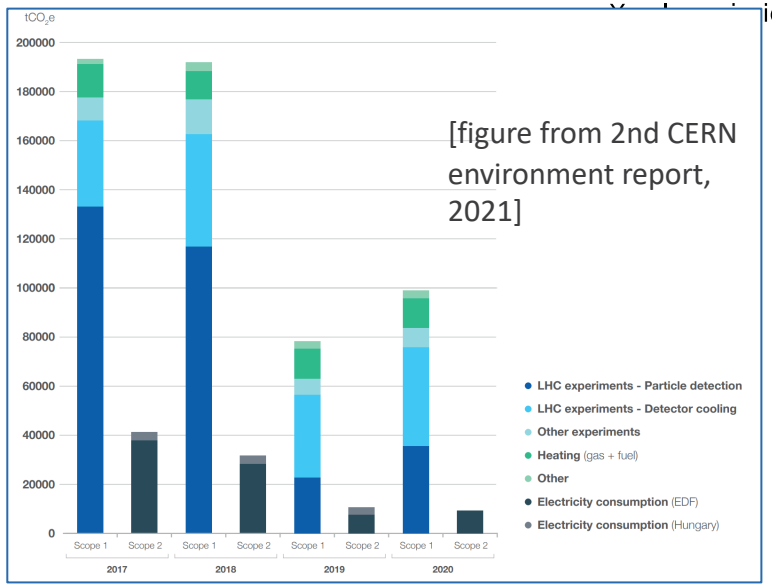


[data from Jahnke et al. 2020]



[figure from 2nd CERN environment report, 2021]

Majority from detector emissions

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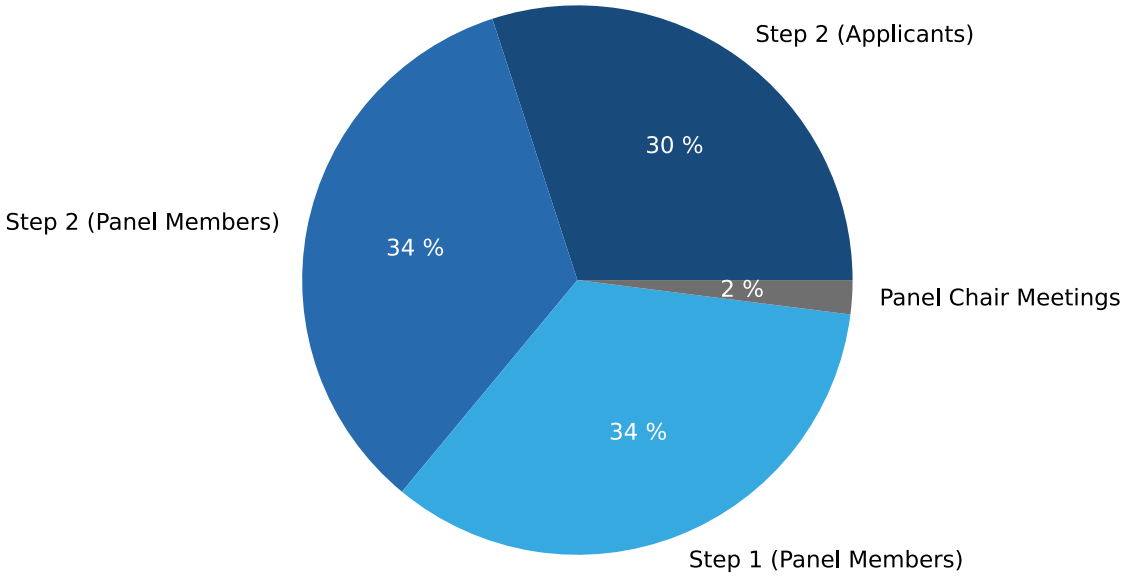
ERC interviews: ~ 1 t per interview



Data gap: no funding organization reports emissions from funded research

Climate sustainability of the academic system

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Key message 1:
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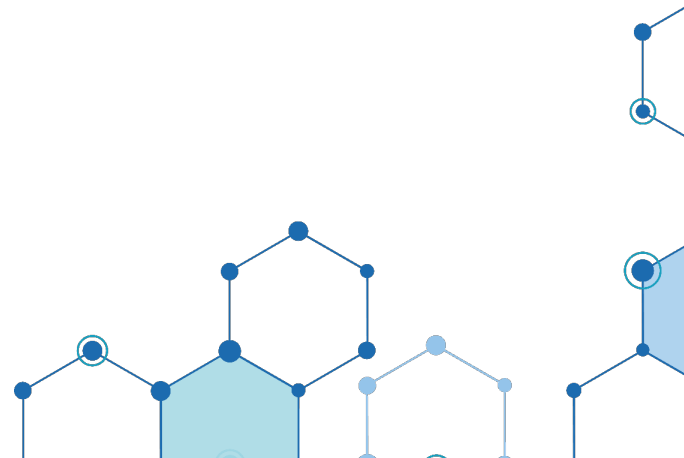
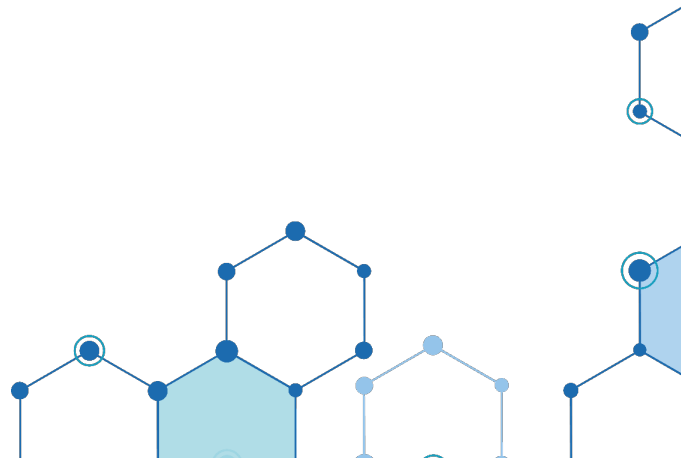


What does it take for climate sustainability?

Cultural change requires change in individual behaviors
and changes in framework conditions, norms and incentives

Key message 2:
Individual stakeholders are taking first steps towards climate sustainability.



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3) Change based on experience during pandemic: virtual instead of physical mobility

What is next?

Key message 3:
There are many options of action available right now for all stakeholders to become more climate sustainable.

Recommendations

- Goal: Specific, actionable steps, not just overarching principles and general guidelines
- Many recommendations may be obvious

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- Mix & match approach to meetings (in-person, hybrid, online)
- Improve virtual communication (technology, skills and formats)
- Base your actions on a solid evidence base - but don’t stop at publishing a climate report

Recommendations: selected examples

Universities:

Students:

Academies, learned societies:

Research institutes:

Ranking agencies:

Funding organizations:

Policy makers:

Conference organizers:

Recommendations: selected examples

Universities:
1) Use green energy on campus
2) Incentivize low-carbon forms of travel
3) Join sustainability network to exchange best-practise ideas

Students:
Hold university management accountable

Academies, learned societies:
Become platforms to exchange knowledge and coordinate climate sustainability efforts across individual institutions and across disciplines

Research institutes:
1) Reduce emissions from computing through efficiency gains & computing center location/cloud use
2) Make climate sustainability key part of institutional strategy

Ranking agencies:
Abandon a competitive ranking model for a collaborative threshold model

Funding organizations:
1) Ask that applicants discuss the climate impact in their applications
2) Virtualise committee work and interviews
3) Fund research on climate sustainability of research

Policy makers:
Adapt procurement rules for public universities to enable climate sustainable choices

Conference organizers:
1) Lower travel-related emissions by choice of conference location
2) Include online-formats (hybrid; in-person only every second year; always online)
3) Monitor, report and reduce emissions

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