

17th International Conference of Young Researchers in Psychology 17ème Journée scientifique des Jeunes Chercheurs en Psychologie



Carbon footprint in Academia: between imperatives of academic excellence and imperatives of attenuating climate change

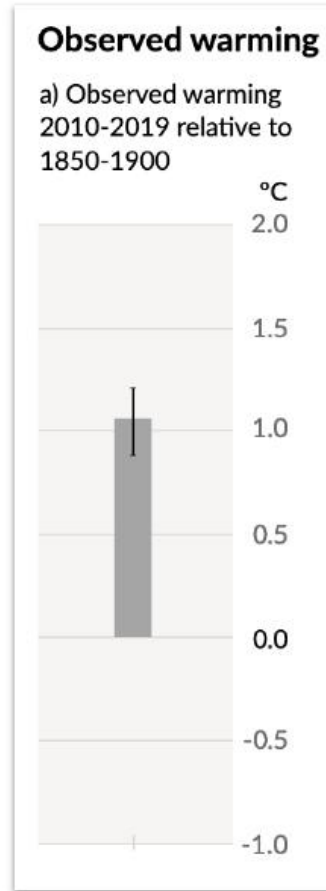
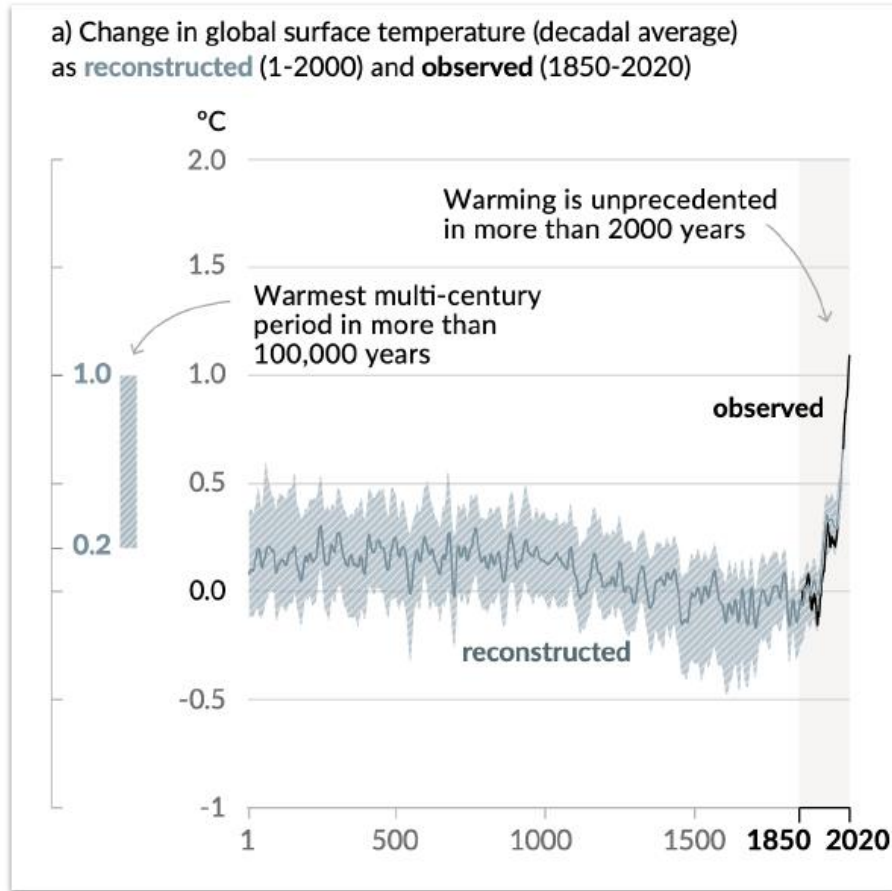
Claudia Teran-Escobar

Post-doctoral researcher in the Institute of Environmental Geosciences

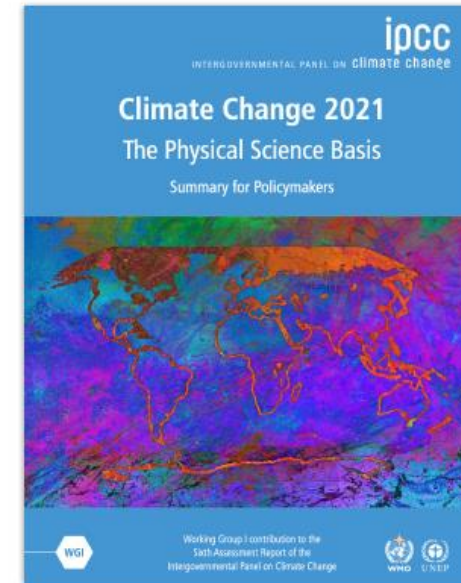


December 2nd 2022
Workshop

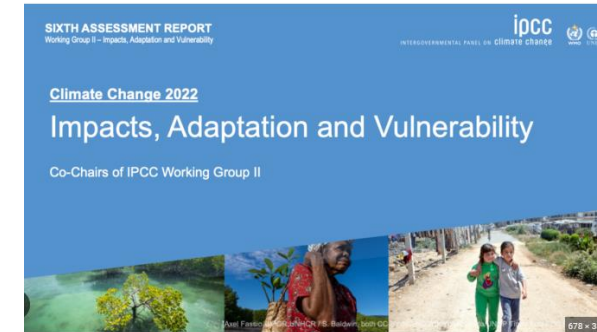
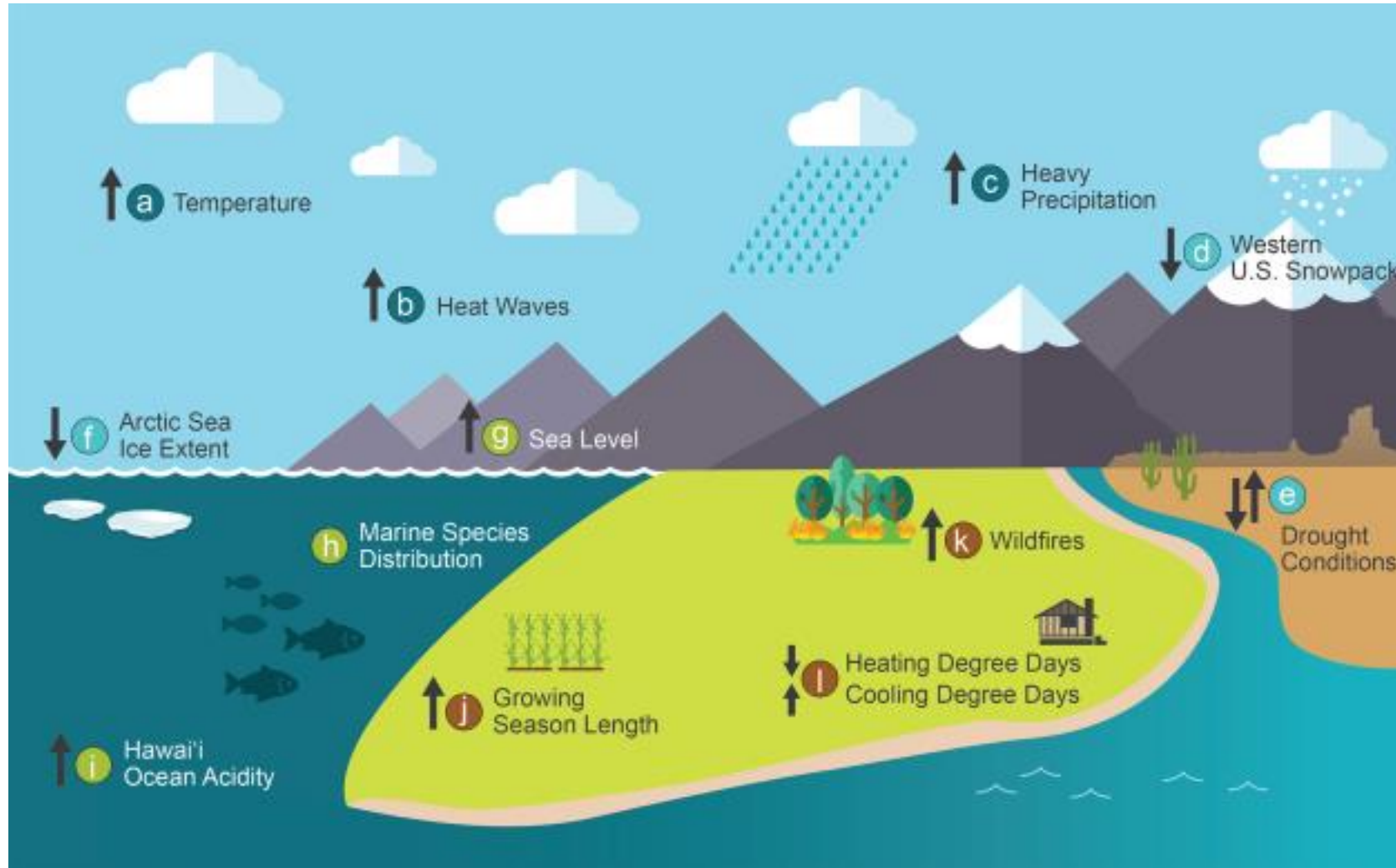
1. Climate is changing...



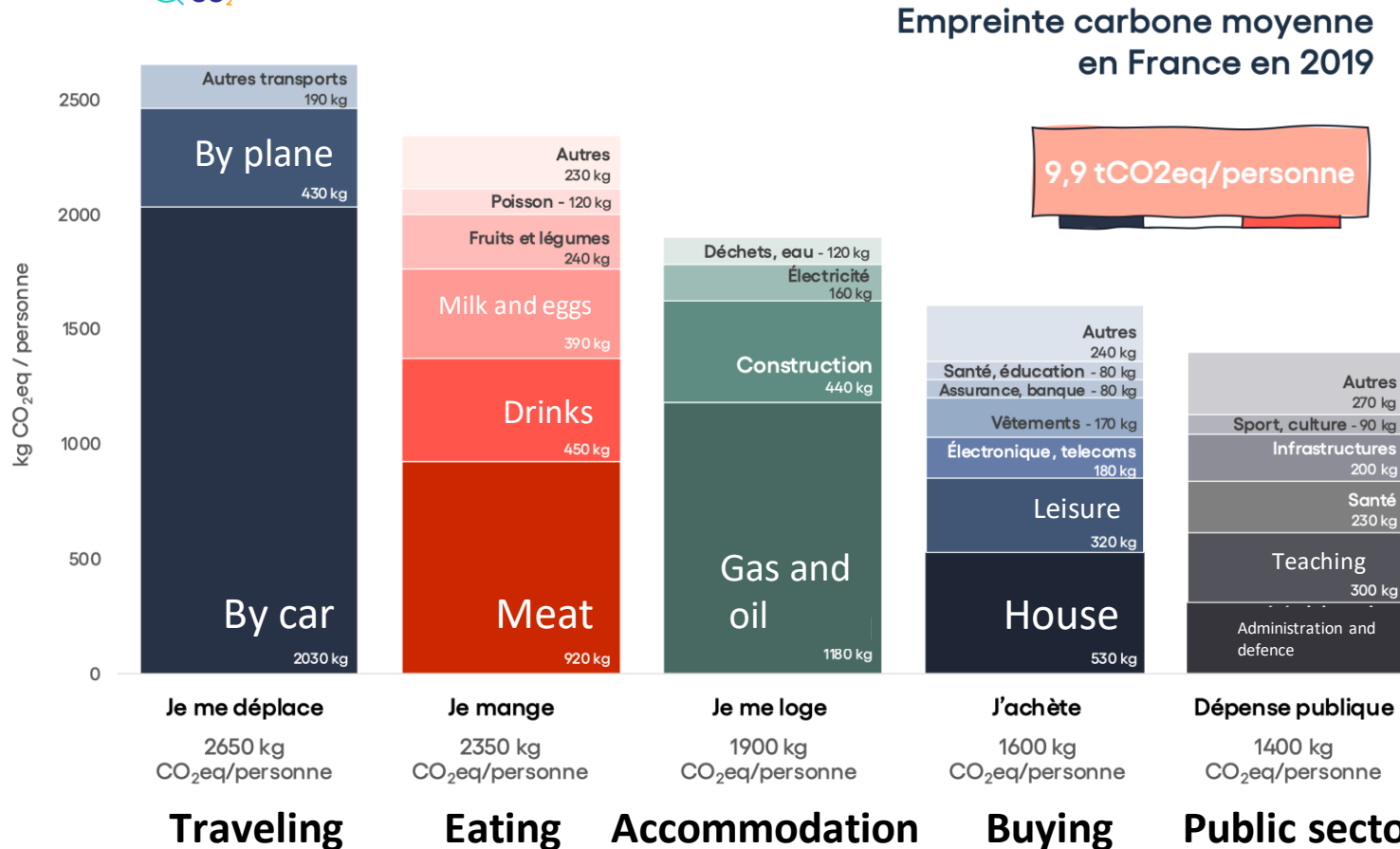
~1.2 °C above the pre-industrial average (1850-1900)



1. Climate is changing... and not for good...

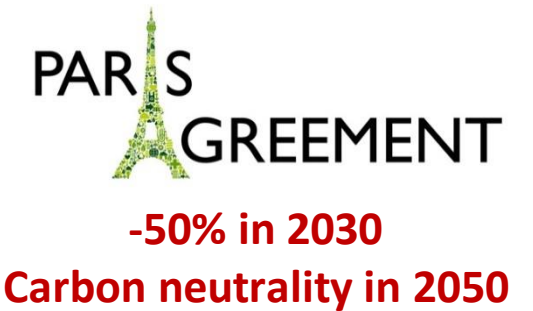


1. Lifestyles and climate change



Average carbon footprint in France in 2019

9.9 tCO₂eq/person



Gaz inclus : CO₂ (hors UTCATF France), CH₄, N₂O, HFC, SF₆, PFC, H₂O (trainées de condensation).

Source : MyCO₂ par Carbone 4 d'après le ministère de la Transition écologique, le Haut Conseil pour le Climat, le CITEPA, Agribalyse V3 et INCA 3.

2. Does Academia has a role regarding climate change mitigation? Which one?

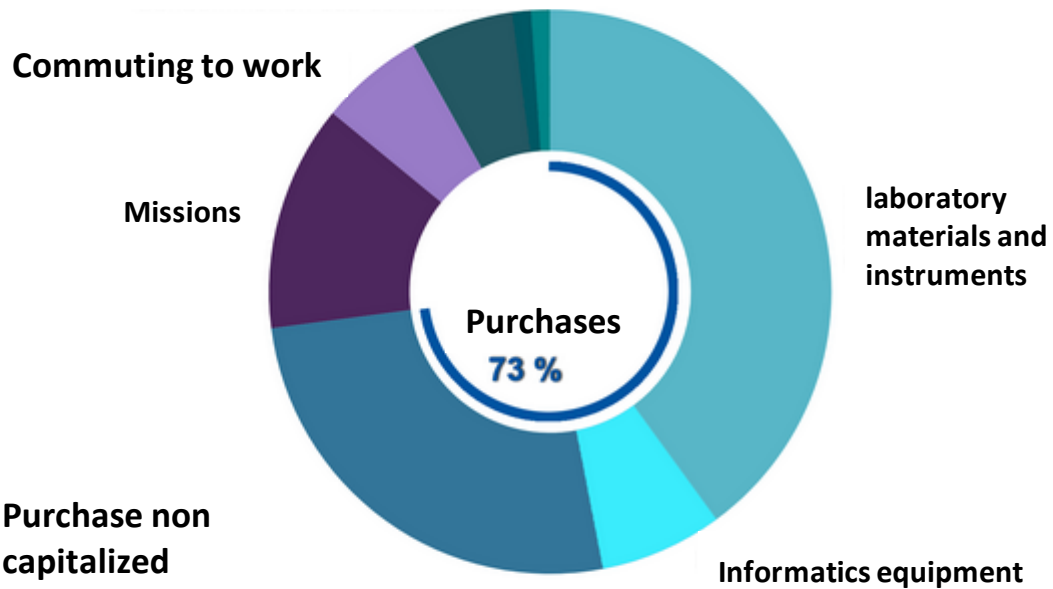
Group work (10 minutes)

- **Does Academia has a role regarding climate change mitigation? Which one?**

10 minutes + 5 minutes of presentation

2. Academic's carbon footprint

National research center (CNRS) with more than 33K workers



© CNRS - Source : BGES 2022 - Les incertitudes, parfois importantes, ne sont pas représentées ici.

Commuting to work

5 millions de km par semaine



Car

Missions

60 millions de km en train
300 millions de km en avion



Plane

Train 0,5 %



Average carbon footprint
per agent
14 tCO₂eq/person

Emission reduction potentials for academic conference travel

Stijn van Ewijk^{1,2} | Paul Hoekman³



Carbon footprint in one
conference

1.3 to 1.8 tCO₂eq/person

2. Academic's actions

LOW-CARBON
RESEARCH
METHODS

Academic activism and low-carbon research

International Workshop

Friday 30, September 2022, online

9 am Washington, 2pm London, 3pm Paris, 6.30 pm Delhi



Raising awareness of the carbon footprint of Academia

Position Paper

How to make EHPS conferences more climate-friendly

First ideas for the 2022 meeting of the European Health Psychology Society



<https://labos1point5.org/>

2. Academic's actions

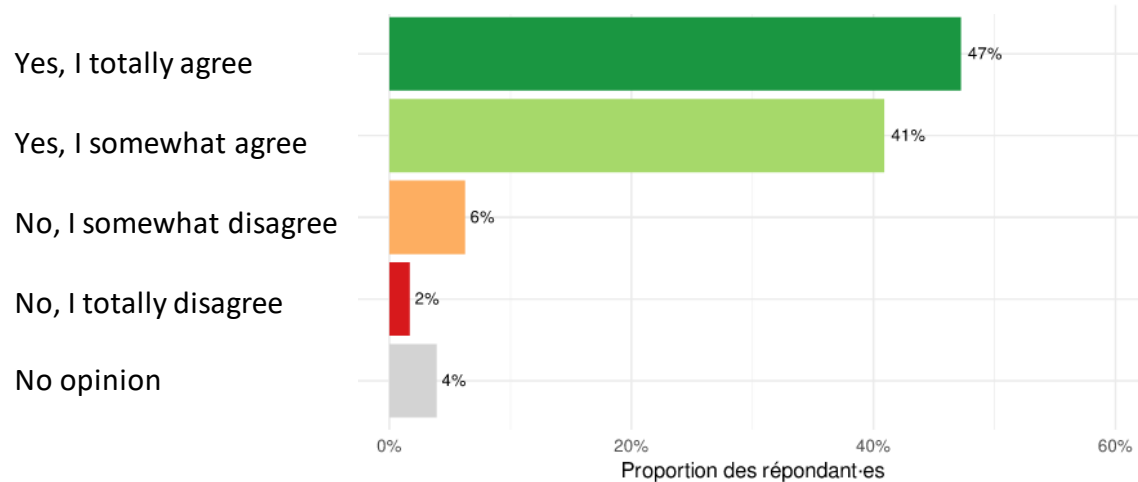


<https://labos1point5.org/>

Survey with CNRS' agents
N= 6469 participants in 2020

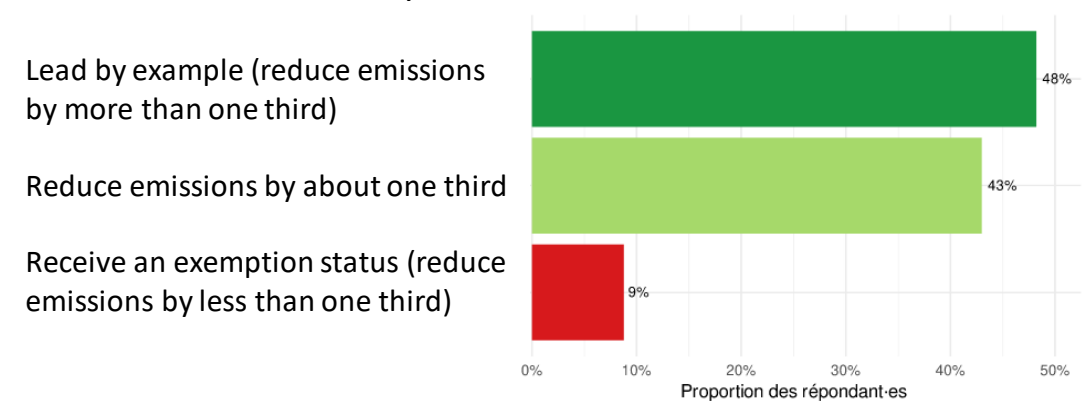
Change in practices

Do you think that the climate emergency requires profound changes in the practice of our professions?



National targets by 2030 and the role of Academia

France is committed to reducing its greenhouse gas emissions by one third by 2030. In this context, do you think that research should be...



3. What are the levers and obstacles to reducing carbon footprint in Academia ?

Group work (10 minutes)

- What factors positively influence/favour reducing carbon footprint in Academia?
- What factors negatively influence/impede reducing carbon footprint in Academia?



<https://ahaslides.com/96EUT>



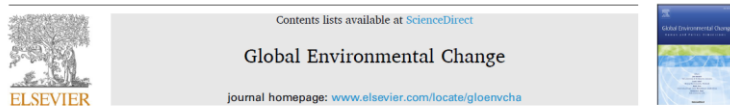
10 minutes + 5 minutes of presentation

3. What are the levers and obstacles to reducing carbon footprint in Academia ?

Individual factors:

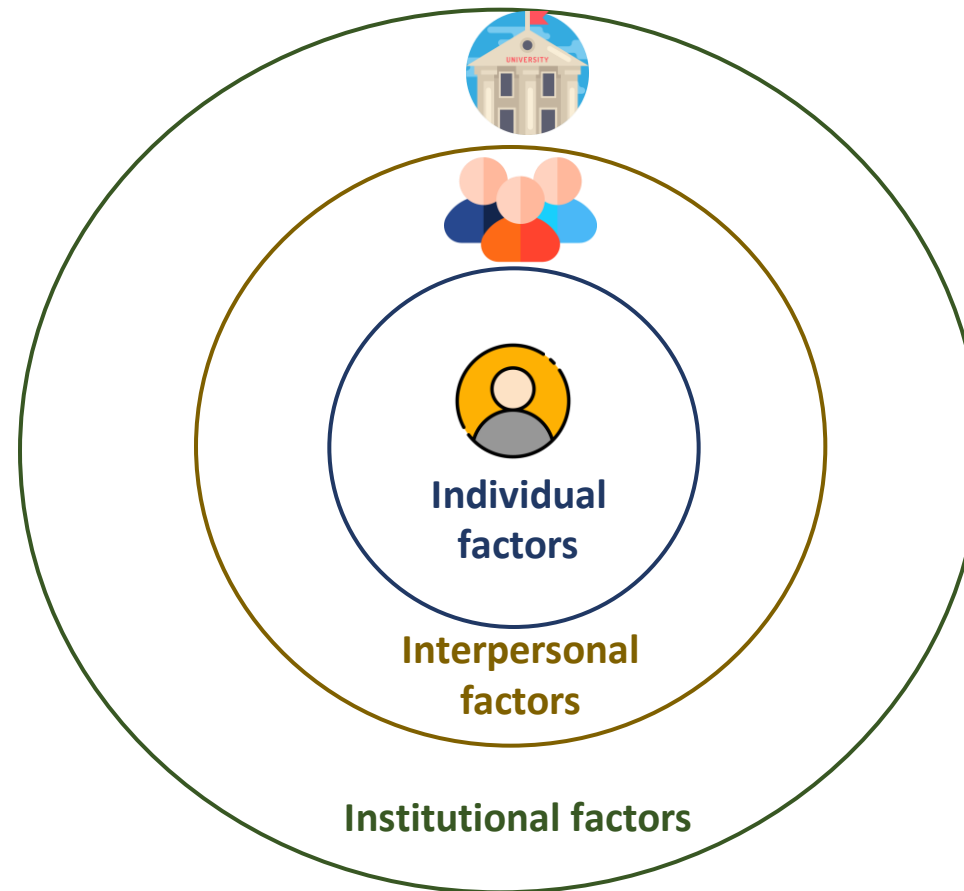
Psychological : Concern about climate change, subjective norms, self-efficacy, values, attitudes

Sociodemographic context: sex, career status, family commitments, need of a visa...



Use of aviation by climate change researchers: Structural influences, personal attitudes, and information provision

Lorraine Whitmarsh^{a,d,e,*}, Stuart Capstick^{b,d,e}, Isabelle Moore^b, Jana Köhler^f, Corinne Le Quéré^{c,d}



Interpersonal factors

Social norms, academic culture (academic excellence, international recognition)

ENVIRONMENTAL RESEARCH LETTERS

ACCEPTED MANUSCRIPT • OPEN ACCESS

The carbon footprint of scientific visibility

To cite this article before publication: Olivier Berne et al 2022 Environ. Res. Lett. in press <https://doi.org/10.1088/1748-9326/ac9b51>

Institutional factors

University policies, available resources,

Reducing the climate impact associated with air travel: Shifting perspectives within and beyond Academia

Doctoral Thesis

Author(s):
Krahl, Agnes Sophie

4. Take-home messages

- Mitigating climate change will require **profound changes in our lifestyles and maybe in our professions**
- Some academics have already begun to propose ways to **measure and potentially reduce the carbon footprint** in Academia (e.g., Ma Terre en 180 minutes, Labo1point5)
- We should consider **multi-scale levers and obstacles** to reducing carbon footprint

Thank you very much!



Do you want more information?

Follow our updates on Researchgate or contact me:

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[@ClaudiaTeranEs1](https://www.researchgate.net/profile/Claudia-Teran-Escobar)