



# How scholars reason about air travel

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# How did you get here?

Tell your neighbour – and did you at all think about the carbon emissions when booking the trip?



# Who am I?

- Computer Scientist
- Mother of two
- PhD-studies in Uppsala
- Farmer's daughter
- Associate professor in Human-Computer Interaction
- Half-finn
- Not so Frequent Flyer

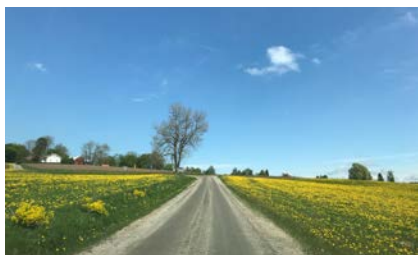




# Sustainable Futures Lab

We are a team of researchers and educators interested in ICT's role in the transition to a more sustainable society; a good life within planetary boundaries. Our work is practice-oriented, aimed at supporting processes of change while also critically examining the role of technology in society.

## Imagining futures



We explore tools and methods for turning what's perceived into possible actions.

## Reflecting sustainability in education



We engage students to critically reflect on sustainability and ICT

## Working within limits



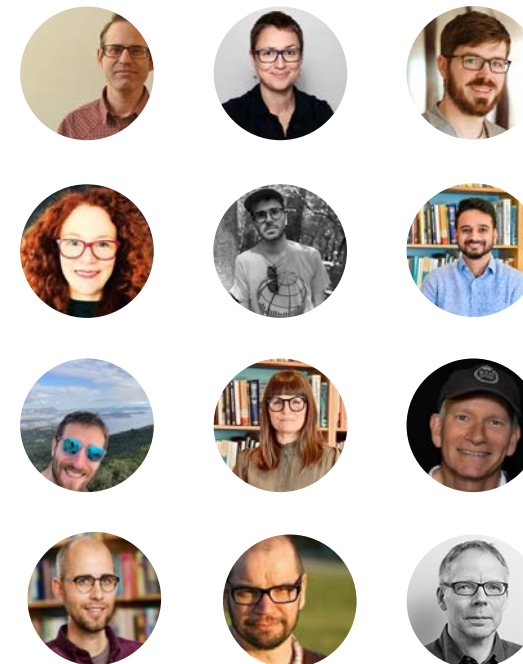
We work where computing exceeds the limits of our environment and in environments where computing is limited.

## Making data meaningful



We design interactions with data to support sense- and meaning-making around sustainability

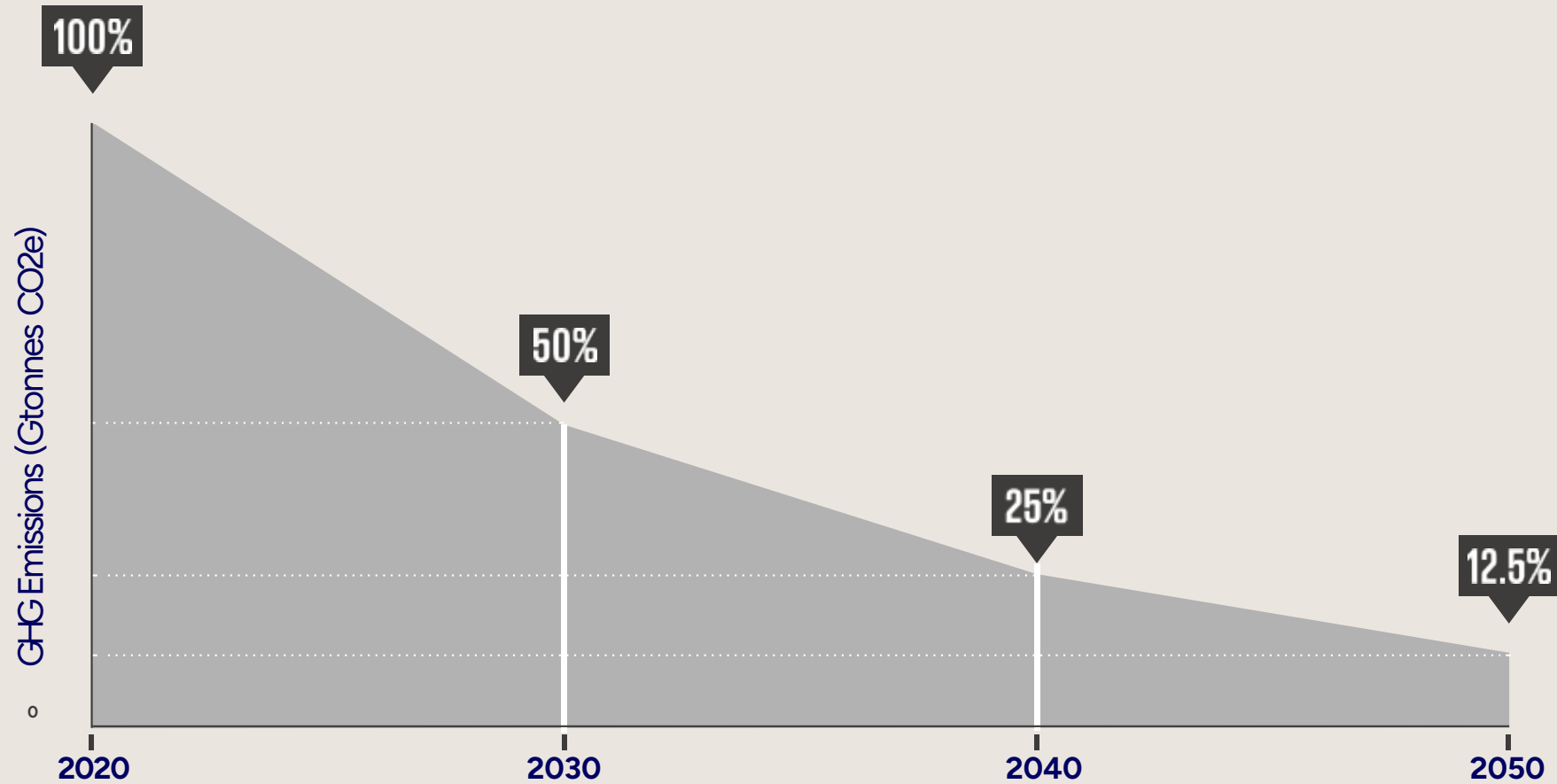
## The team



See more on our webpages!



# What is the goal?





# KTH goals

KTH flies a lot!

2019: > 10,000 trips

2019: > 7,000 tonnes of CO<sub>2</sub> emissions

Flying accounts for 98% of emissions from travel

KTH must reduce its emissions from flying by 50% between 2020 and 2030

= 7% reduction per year





# Decreased CO<sub>2</sub>-emissions in flight-intensive organisations: from data to practice

- 2019-2023
- Daniel Pargman, Elina Eriksson, Markus Robèrt, Jarmo Laaksolahti, Aksel Biørn-Hansen
- Maria Wolrath Söderberg & Nina Wormbs



# Our aim

- We wanted to know how flying is distributed at KTH (who flies where, and when)
- Make it possible to relate to, analyse, reflect and act on this data and knowledge
- Support departmental level discussions on how to move towards more sustainable travel practices



During 2017, 2018, and 2019, KTH has...

...emitted  
**30 912 tons of CO<sub>2</sub>**

from business flying.  
It has the same volume as **200.9 million moving boxes.**



...traveled **165 308 786 km**  
which corresponds to  
**25 rounds around the globe**

...spent time in air corresponding to  
**21 years**

GO BACK CONTINUE





# Challenges to Reaching the Targets

- 20% of the researchers are responsible for 80% of the emissions
- "Unknown" travellers (~30% of the emissions)
- Long-haul trips (Intercontinental) is >50% of current emissions





# Travel Survey

'A large part of the emissions at KTH come from air travel. What do you think should be done to reduce those emissions?'

Eriksson, E., Söderberg, M. W., & Wormbs, N. (2022). Exceptionalism and evasion: How scholars reason about air travel. *Academic Flying and the Means of Communication*, 159-183.





# Method

- Topos analysis
- 556 answers
- Faculty and phd-students and postdocs
- Not technical and administrative staff
  
- Inductive and open coding



## Resvaneundersökning för CERO



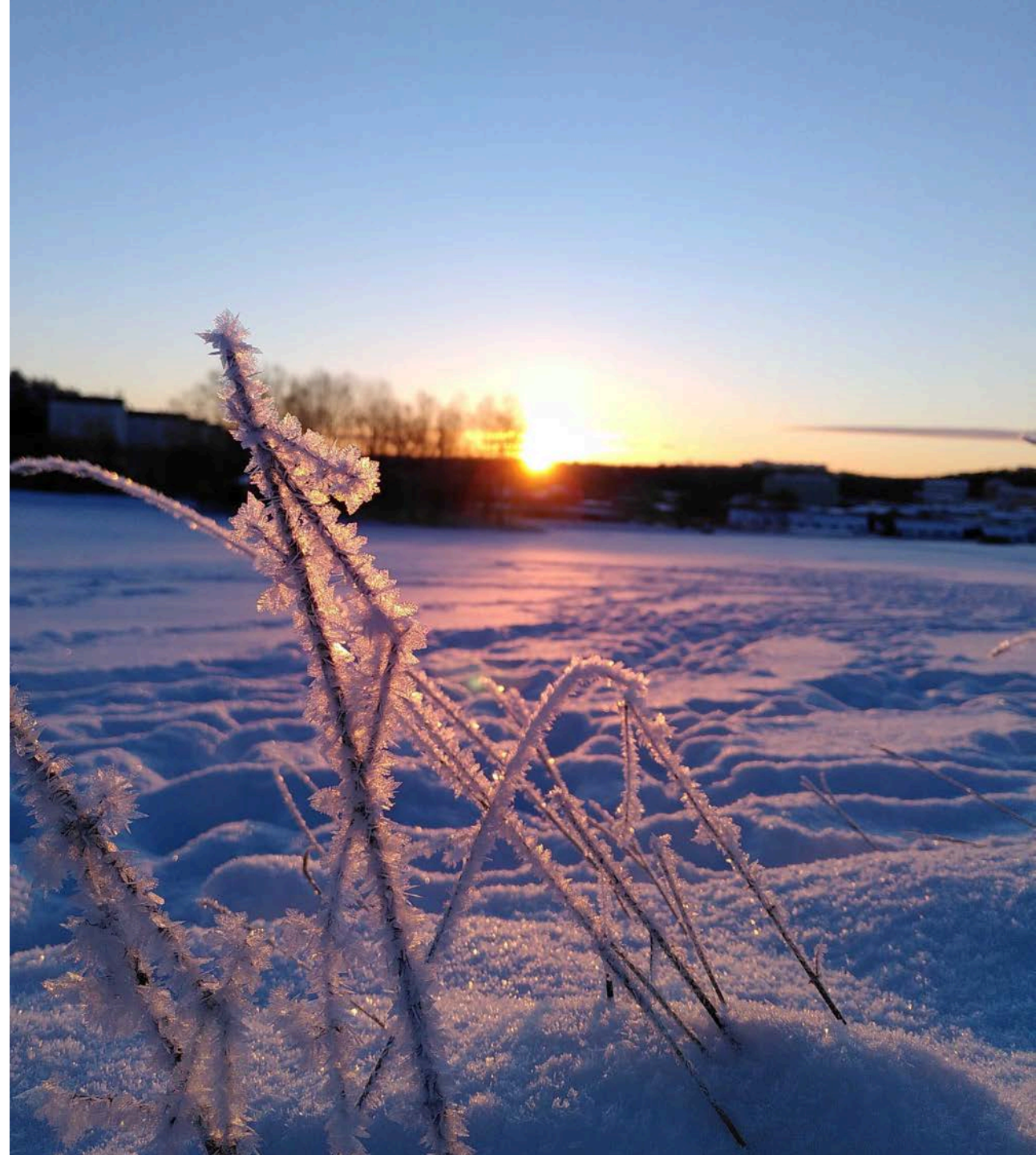
**Denna enkät är avslutad.**

Om du har frågor eller om du får tekniska problem, kontakta gärna  
[info@cero.nu](mailto:info@cero.nu)

JW DESIGN

# Suggestions to Change

- Habits
- Limiting or enabling
- Technology
- Carbon offsetting
- Change the system
- Inform and visualize
- Less harmful solution
- Social dimensions
- Transformative change





# Arguments of Inertia

- When Possible

*'If possible, use alternative modes of travel, if it is practicably feasible. For example, train to Stockholm and Lund.'*



# Arguments of Inertia

- The Necessary

*'Fly when neccessary – not otherwise!'*





# Arguments of Inertia

- Reality

*'This is a difficult problem. I would say perhaps one should motivate train travels in Europe by somehow increasing the allowance. It is the reality that when we travel we do better networking which later results for better international collaborations. But the CO2 emissions are tremendous when we travel.'*





# Arguments of Inertia

- A Good Cause

*'Prioritize what is most important. Some should travel more if it concerns establishing research cooperation, for example with European partners, if the research aims at improving environmental issues.'*





# Arguments of Inertia

- Special Conditions

*' Travelling to conferences is a must especially for Computer Science Students, because research in this area is fast paced. I wonder if KTH can do anything about it, but if KTH strengthens its positions and pressurizes ACM and IEEE perhaps something could be done.'*







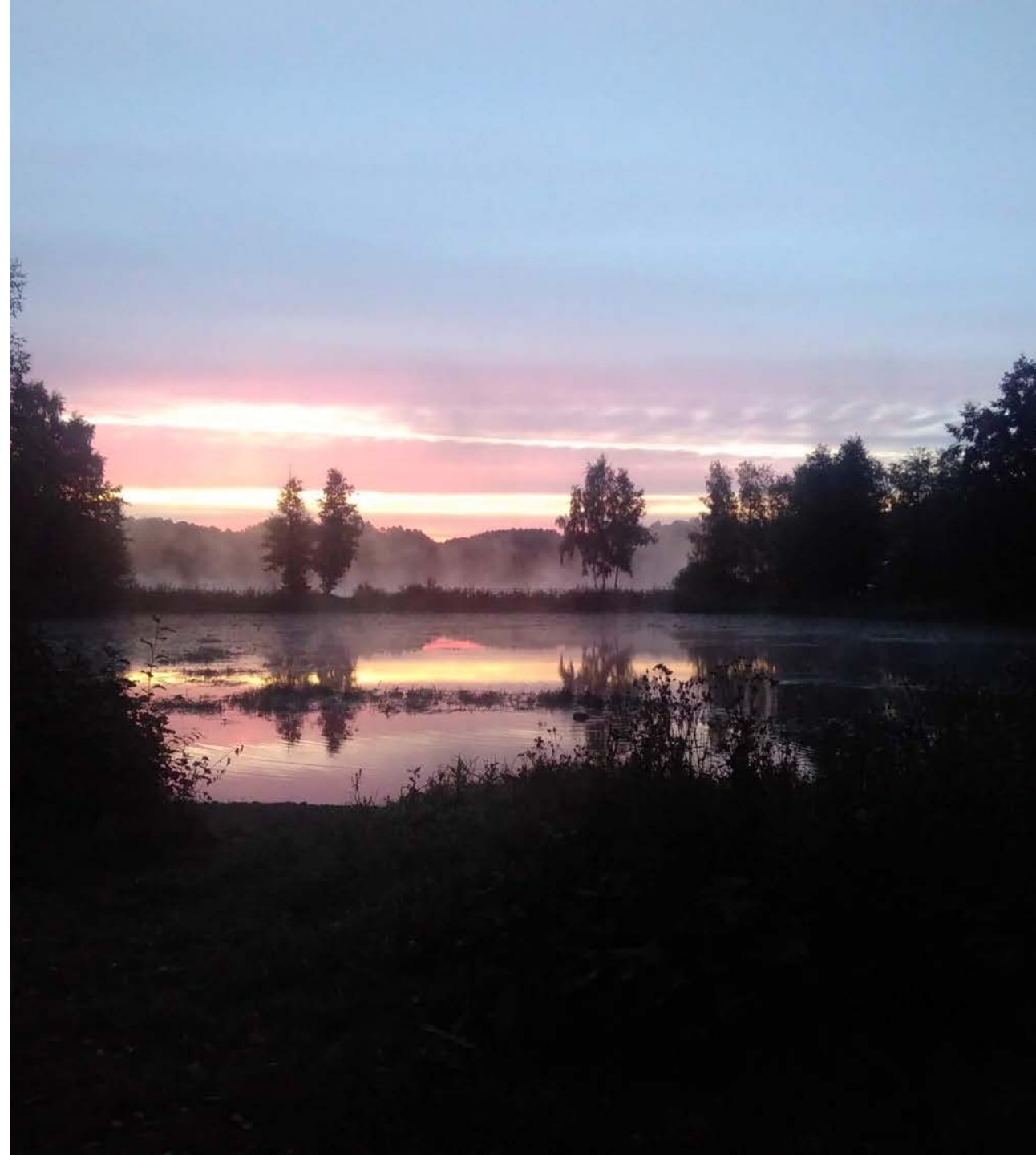
**Do you recognize any of these arguments?**

**Tell your neighbour – or did you even use them when discussing earlier?**

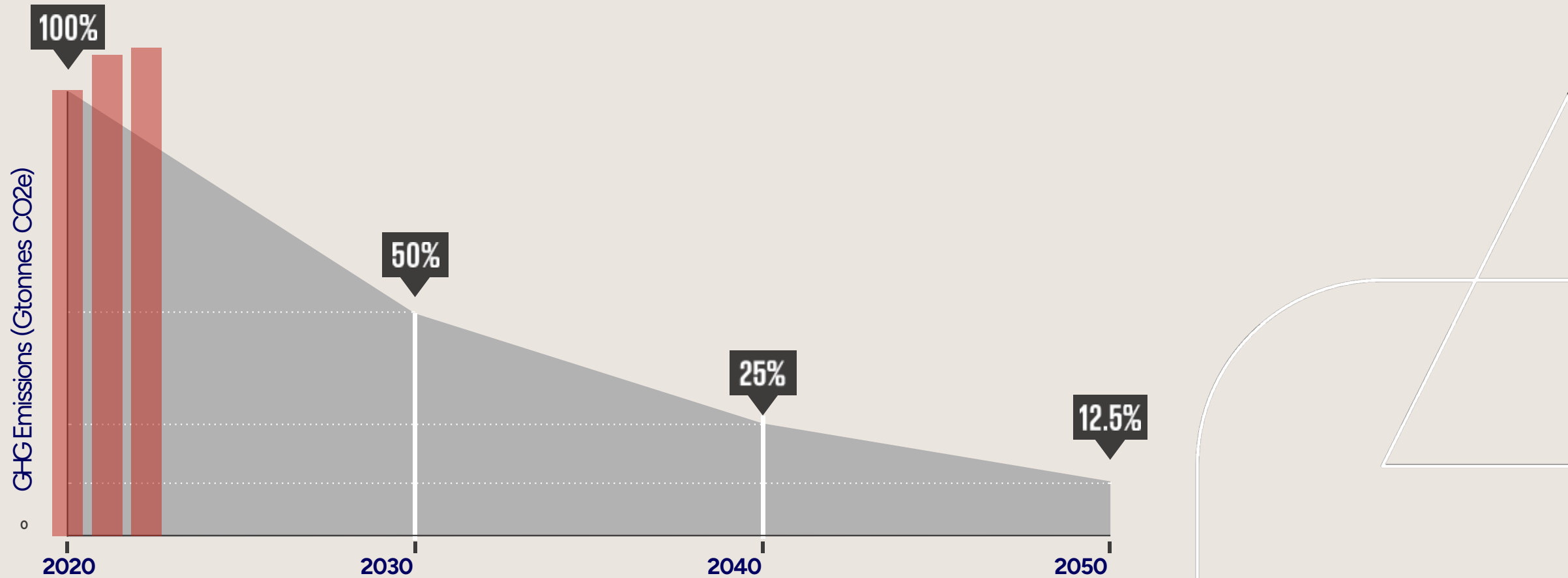


# The Challenge

“I don’t know if this is the right place to say this, but there is kind of a culture of silence concerning climate issues and travel at KTH. Everyone knows about it, but it is considered unfitting to talk about it, even our head of division has directly said that we should not discuss the climate impact of our travel.”



# How are we doing?







# Thank you for listening!

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<https://www.kth.se/sv/hct/mid/research/sflab/projects/flight>

# THE TRAVELLER

**ELECTRIC FLIGHTS  
FEW AND EXPENSIVE  
Who are they for?**

**INTERRAIL TO AFRICA  
New tunnel  
built by 2025**



**PERSONAL FLIGHT QUOTAS  
How do they work?**

# UniTeacher Magazine

**Distance  
education  
at record 40%  
of global  
HigherEd**



**University of Peking reaches  
climate targets ahead of time**



**RESEARCHERS  
PROTEST UNEQUAL  
FLIGHT ALLOWANCES**

# THE NEWS

**PLASTIC QUOTAS**  
Healthcare a priority sector  
"Safe care impossible  
without plastics"



**GOVERNMENT DECISION**  
Public institutions to be sanctioned  
for not hitting climate targets



**LOCAL  
COWORKING  
SPACES  
ON THE RISE**