

Bridging the Gap between science and policy



European Climate Research Alliance

-

Bergen 19.03.2024



- Introduction of ECRAs work
- Presentation of our Collaborative Program (CP) Polar
- Joint workshop to elaborate next steps in climate policy



What to expect from ECRA

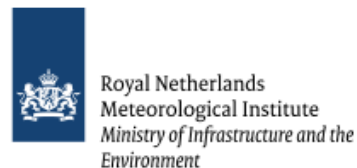
a platform for joint research planning and activities

Exchange of personnel network in our Collaborative Programms

A unified Voice of climate research in Europe







°CICERO



- Bjerknes Centre
- Nansen Centre
- University of Bergen



HELMHOLTZ

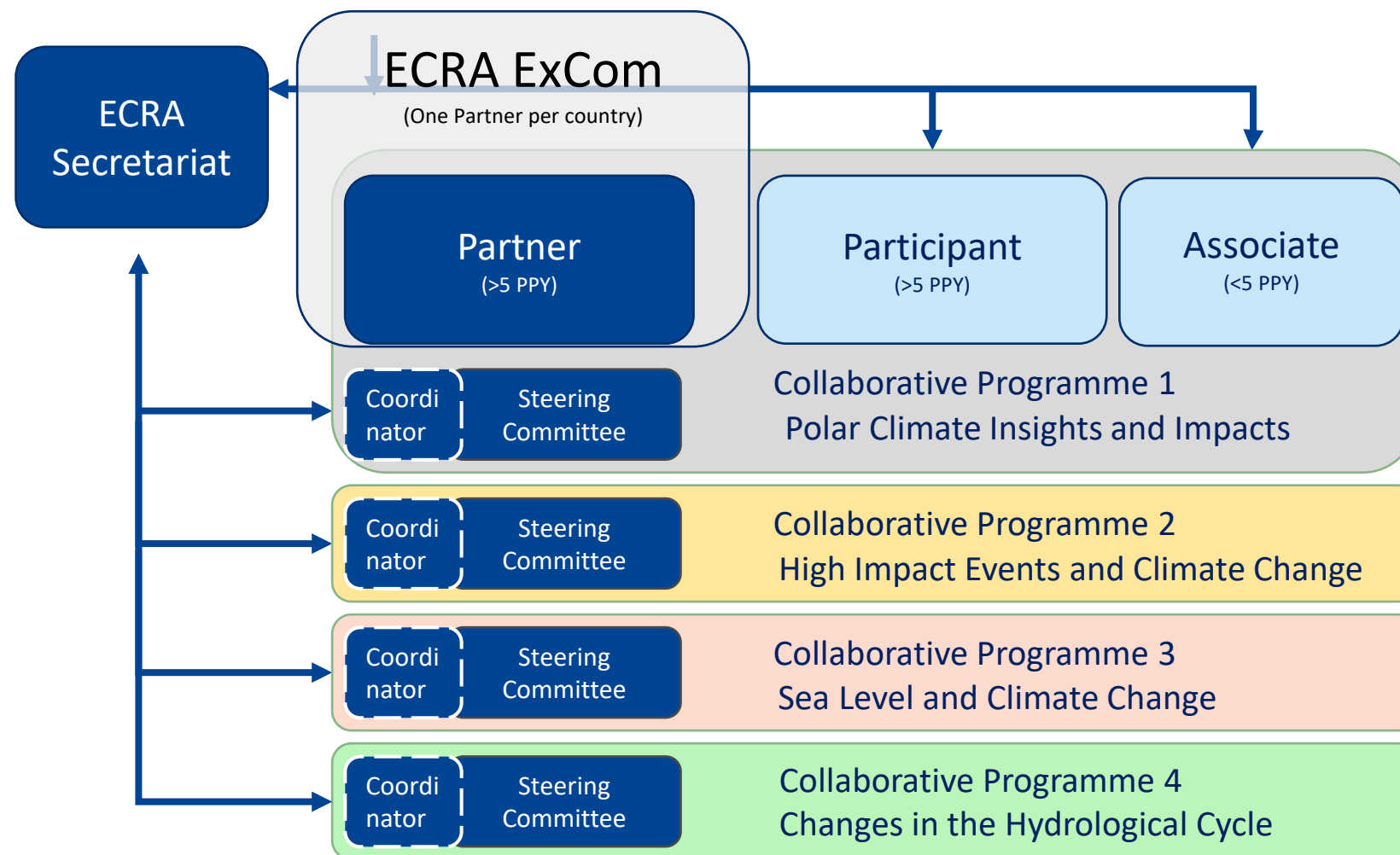
RESEARCH FOR GRAND CHALLENGES

Helmholtz Centres for Earth & Environment:

- AWI
- FZJ
- GEOMAR
- GFZ
- Helmholtz Centre München
- HZG
- KIT
- UFZ



Governance of ECRA



PPY: Professional Person Year



Collaborative Programmes



Polar Climate Impact



High Impact Events



Sea Level Change



Hydrological Cycle

Polar Collaborative Program

Polar Climate Insights and Impacts

Einar Ólason and Thomas Bracegirdle



The People on the Bridge

- Einar Örn Ólason
- Nansen Environmental and Remote Sensing Center (NERSC)
- Research leader for the Sea-Ice Modelling Group at NERSC
- Main interests:
 - Rheology and dynamics of sea ice
 - Role of sea ice in small-scale atmosphere-ocean-ice interactions
 - Dynamics of the polar planetary boundary layer



- Tom Bracegirdle
- British Antarctic Survey (BAS)
- Group Leader of Polar Climate and Prediction at BAS
- Main interests:
 - Polar meteorology and climate
 - Large-scale atmospheric circulation
 - Troposphere -stratosphere interactions
 - Methods for quantifying and reducing uncertainty in climate model projections



Developing a new Collaborative Programme

Polar ECRA: Community Consultation

- Expand the Arctic ECRA community to incorporate members with interests in both polar regions
- Community consultation to develop and/or amend the initial questions
- Organise workshops (such as EGU 2024) to address key questions towards a work plan
- Maintain a dialogue with other ECRA CPs to identify opportunities for collaboration

Developing a new Collaborative Programme

Polar ECRA: Polar Climate Insights and Impacts

Insights -> Improve understanding of processes responsible for polar climate variability and change

Impacts -> Improve knowledge of the consequences of polar change for lower latitudes

Polar ECRA: Research Questions:

- Q1 What drives abrupt shifts in sea ice, and what are the short and long-term effects?
- Q2 Small scales - big impacts: what are the small-scale processes that communicate the effects of climate change to large-scale responses in the climate system?
- Q3 What will be the patterns of polar climate change, and what are their driving mechanisms and impacts?
- Q4 What are the drivers of recent extreme weather and climate events, how did extreme events change due to anthropogenic factors, and how will extremes change under future emissions scenarios?

Polar ECRA: Our niche

- The ongoing relationship with the European Commission
- Science focus
- Long-term linkages between diverse communities
- Agile and responsive to new opportunities but also able to take a long-term perspective
- Direct links to non-polar CPs to help provide a wider perspective and sharing of expertise and resources

CP POLAR Leads

Einar Örn Ólason

Research leader for the Sea -Ice Modelling Group

 Nansen Environmental and Remote Sensing Center
(NERSC)

Jahnebakken 3, Bergen Norway



CP POLAR Leads

Tom Bracegirdle

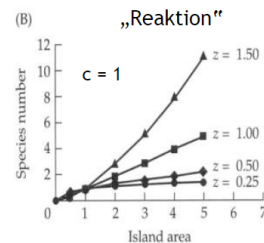
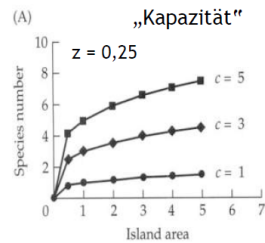
Group Leader of Polar

Climate and Prediction

 British Antarctic Survey (BAS)



Why is science communication important ?



$$S = c A^z$$

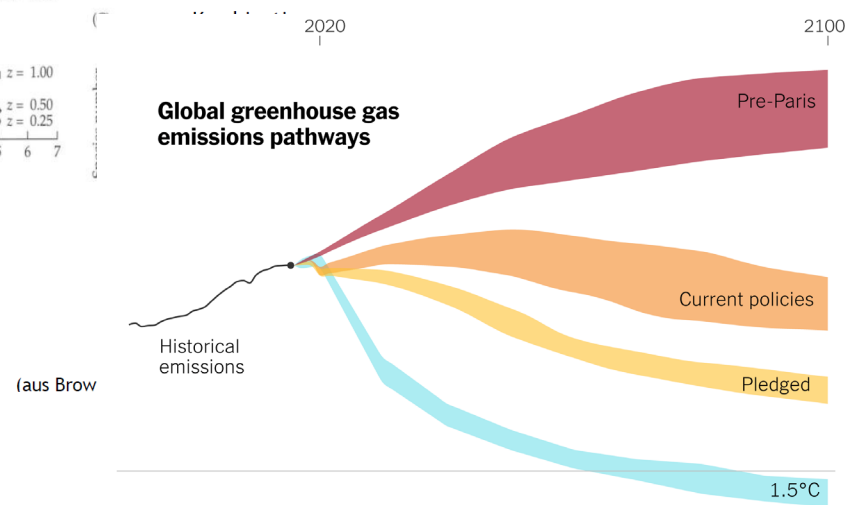
S = Artenzahl

c = Konstante (Pool)

A = Flächengröße

z = Koeffizient (Rate)

Eigene Grafik



<https://www.nytimes.com/interactive/2021/10/25/climate/world->



“The spirits say you have all the data.
Just do something.”

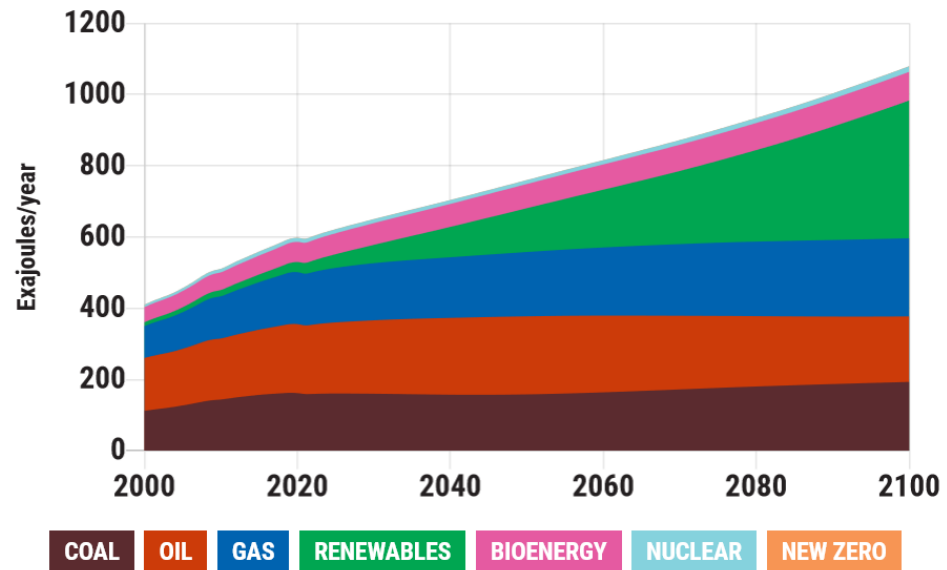
Pat Byrnes / CartoonStock.com



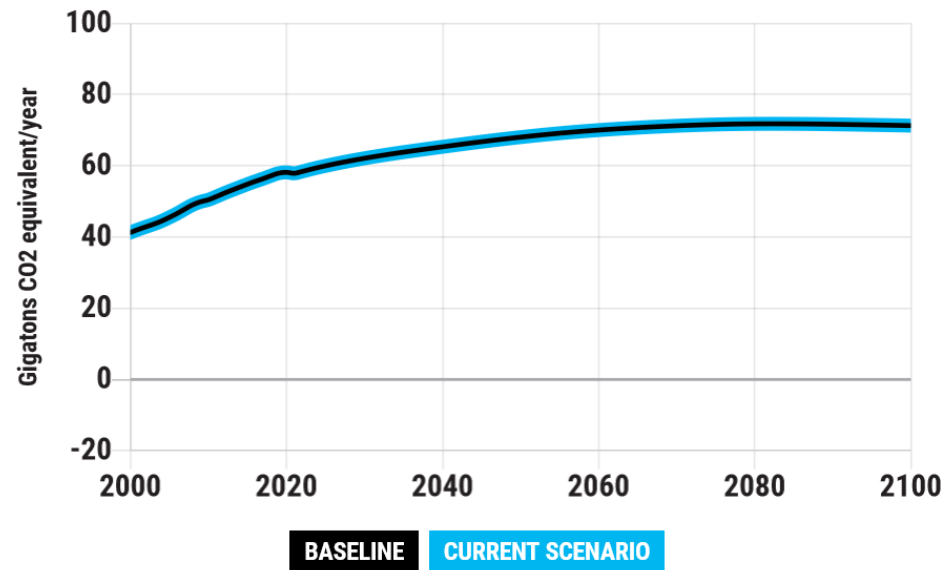
And therefore we need you ...

- In the Great debates , Short courses and Workshops, conferences , lectures we learn about participation of scientists in society and political life
- Only two working hours per week can make a difference
- Do you have a science communicator at your team? Support her/ him with short facts of your work to expand your outreach .

Global Sources of Primary Energy



Greenhouse Gas Net Emissions

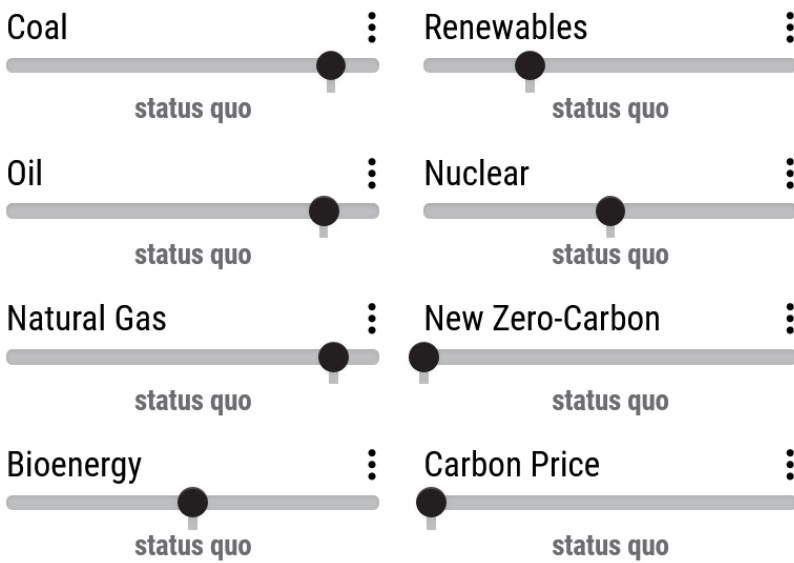


+3.3°C

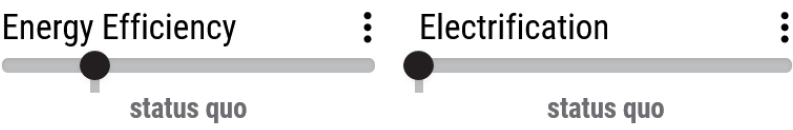
+6.0°F

Temperature Increase by 2100

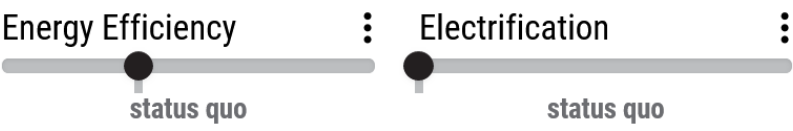
Energy Supply



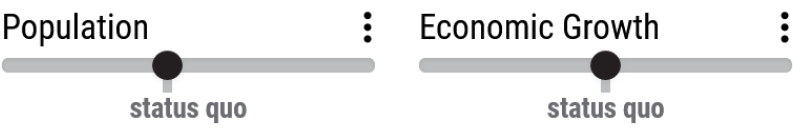
Transport



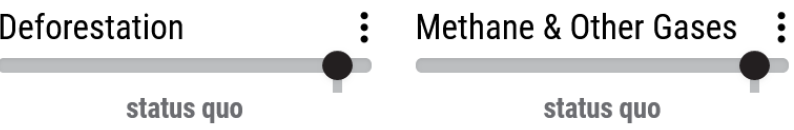
Buildings and Industry



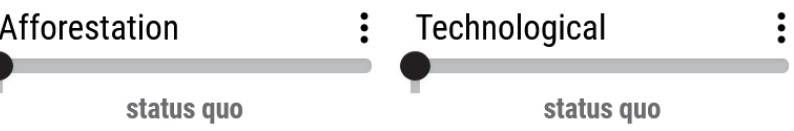
Growth



Land, Food, and Industry Emissions



Carbon Removal



Register Your En-ROADS Event



What can I do?

1. Outline your motivation for engaging in policy.
2. Make a list of policy areas that are relevant for your research.
3. Decide on which level you want to engage (local, nation, EU, global).
4. Understand that the aim of science advice is to assess the feasibility and consequences of policy options.
5. Connect with others who are engaging in science-policy interface (social media).
6. Attend policy network events (e.g. General Assembly of ECRA at the 5th & 6th of March in Brussels or the climate2europe festival).
7. Select a skill that you'd like to develop from EUs competence center (Smart for policy). Consider engaging in foresight-related activities that explore long term scenarios.
8. Position yourself to spot opportunities.
9. Connect and work with journalists to share your expertise, promote access to reliable information and fight disinformation.



Why does knowledge transfer helps us?

Any ideas ?

Contact

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