

°CICERO



## **Grønt skifte - under press?**

Pensjonskasseforeningen 14. mai 2024

Kristin Halvorsen, direktør CICERO

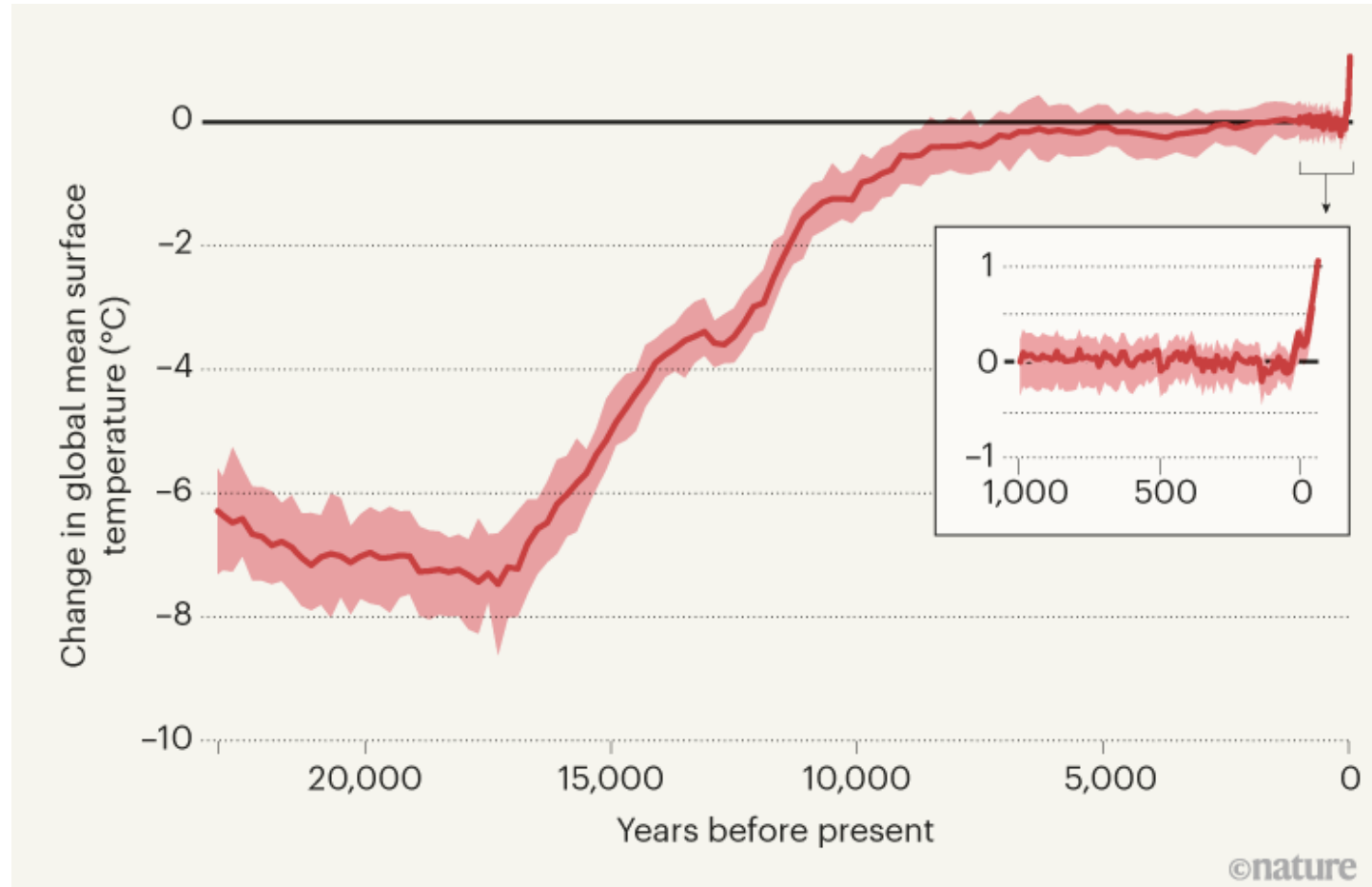




## **CICERO er et resultat av Brundtland-rapporten fra 1987**

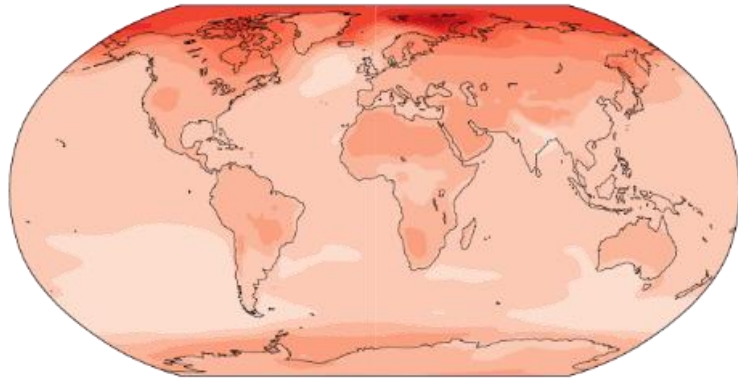
- CICERO Senter for klimaforskning er Norges fremste institutt for tverrfaglig klimaforskning
- Et uavhengig forskningsinstitutt grunnlagt i 1990 og initiert av tidligere statsminister Gro Harlem Brundtland
- CICEROs oppgave er å produsere kunnskap som kan bidra til å løse klimakrisen og til å styrke internasjonalt samarbeid.
- CICERO har forskere innenfor naturvitenskap og samfunnsvitenskap.

# Temperaturvariasjoner siden istiden

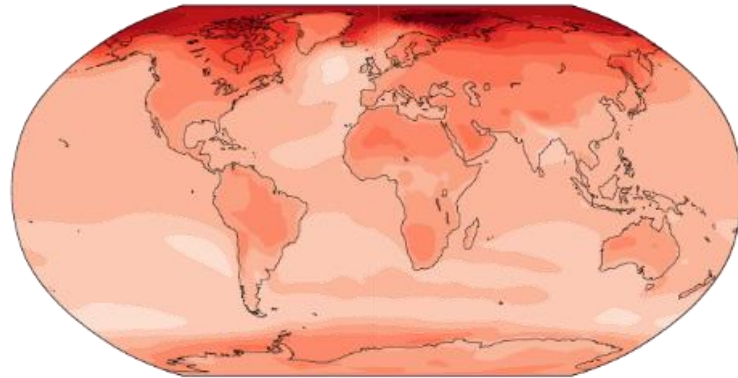


# Gjennomsnittstemperaturer skjuler store variasjoner

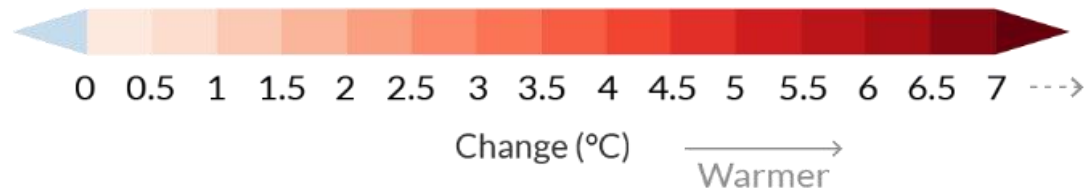
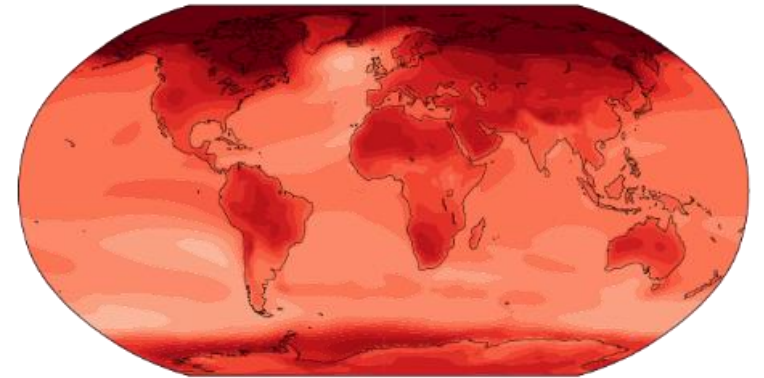
1.5°C average



2°C average

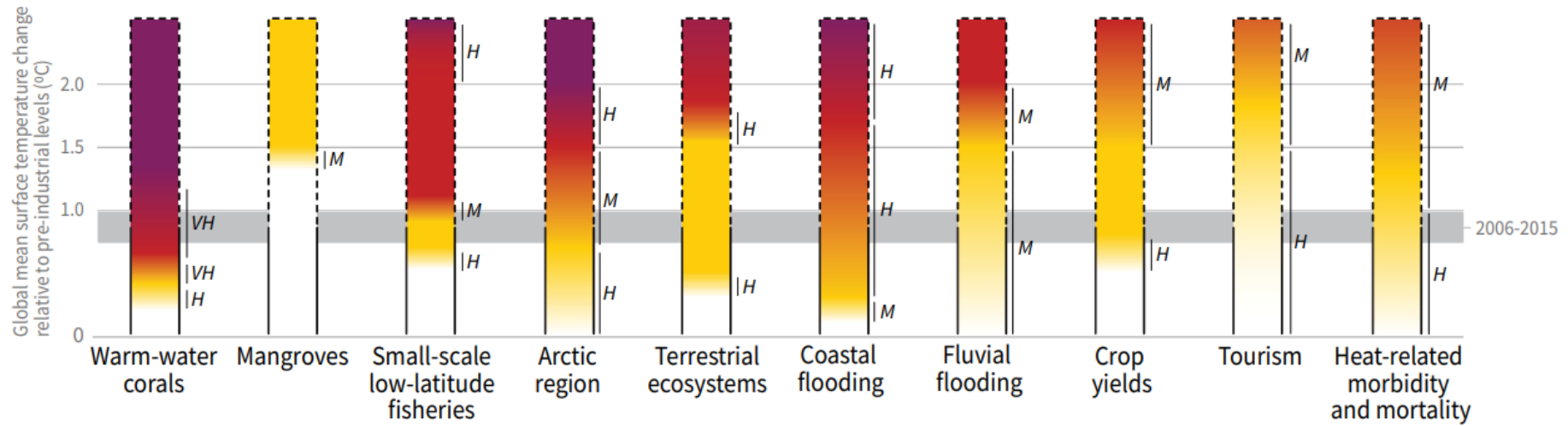


4°C average



# Hver tiendedel teller

## Impacts and risks for selected natural, managed and human systems



Confidence level for transition: L=Low, M=Medium, H=High and VH=Very high



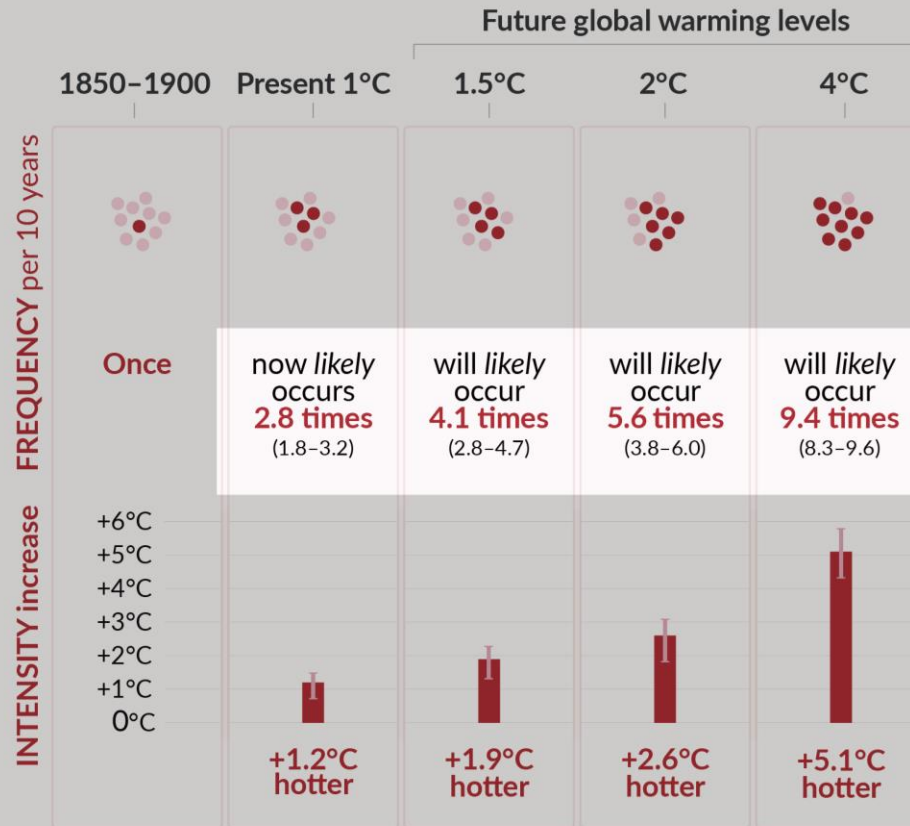
# Ekstremværehendelser



## Hot temperature extremes over land

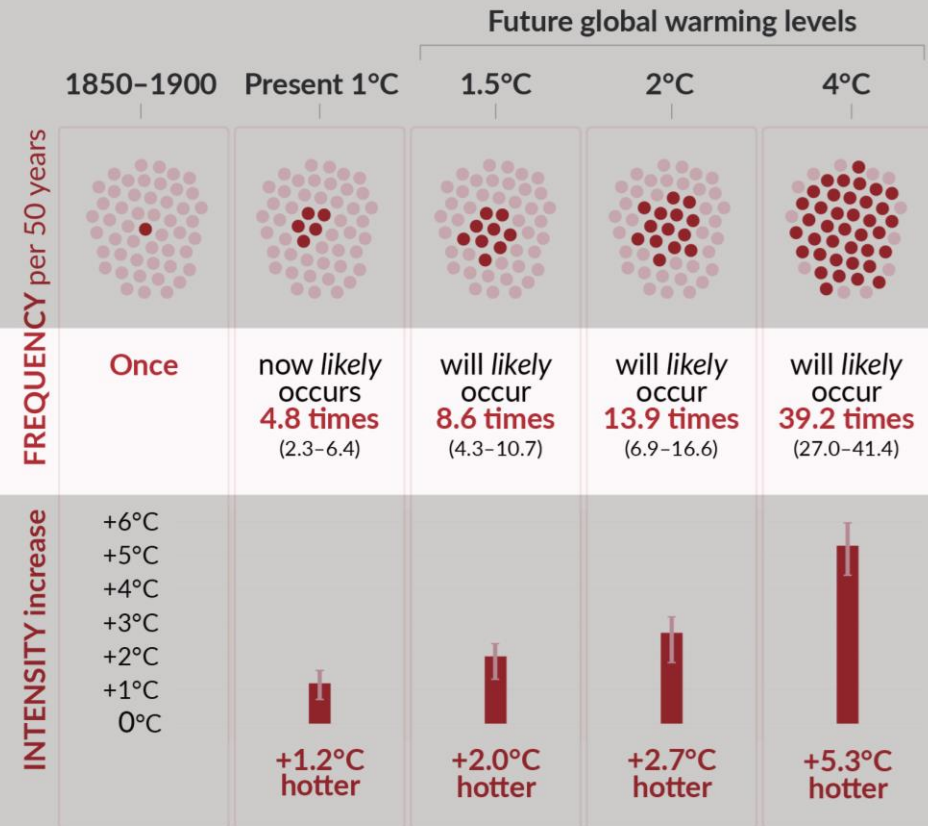
### 10-year event

Frequency and increase in intensity of extreme temperature event that occurred **once in 10 years** on average in a climate without human influence



### 50-year event

Frequency and increase in intensity of extreme temperature event that occurred **once in 50 years** on average in a climate without human influence

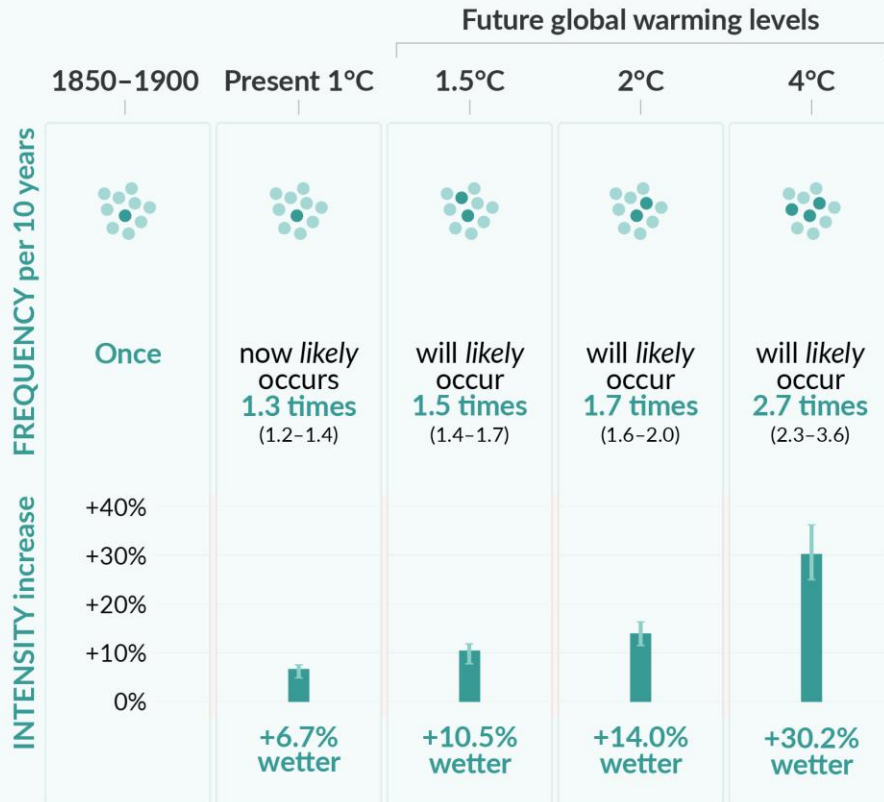




## Heavy precipitation over land

### 10-year event

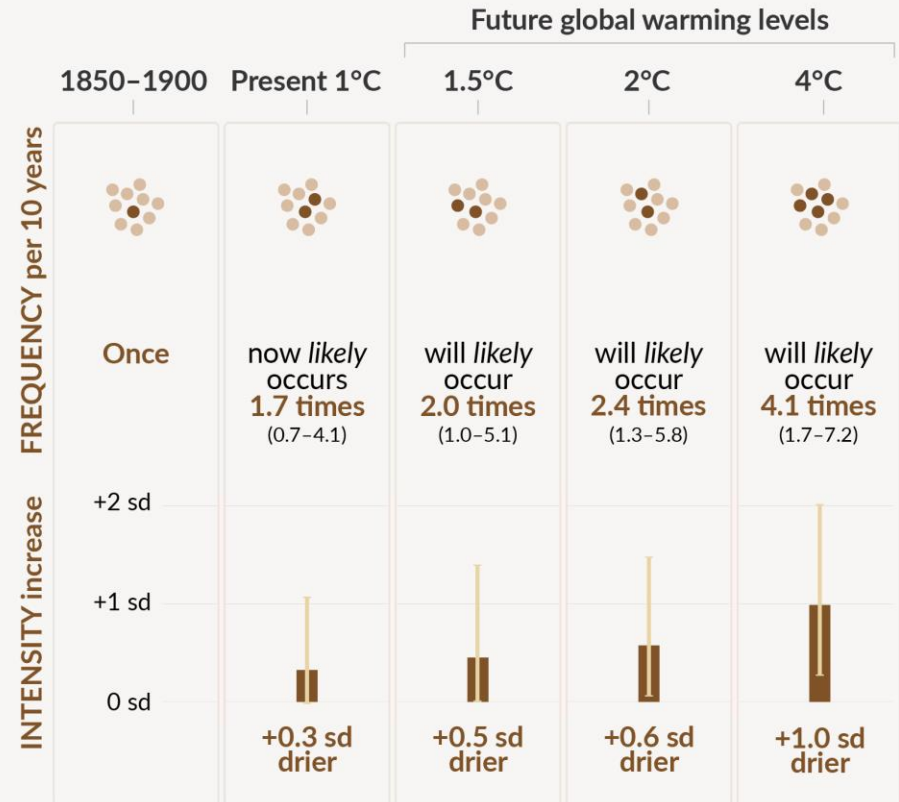
Frequency and increase in intensity of heavy 1-day precipitation event that occurred **once in 10 years** on average in a climate without human influence



## Agricultural & ecological droughts in drying regions

### 10-year event

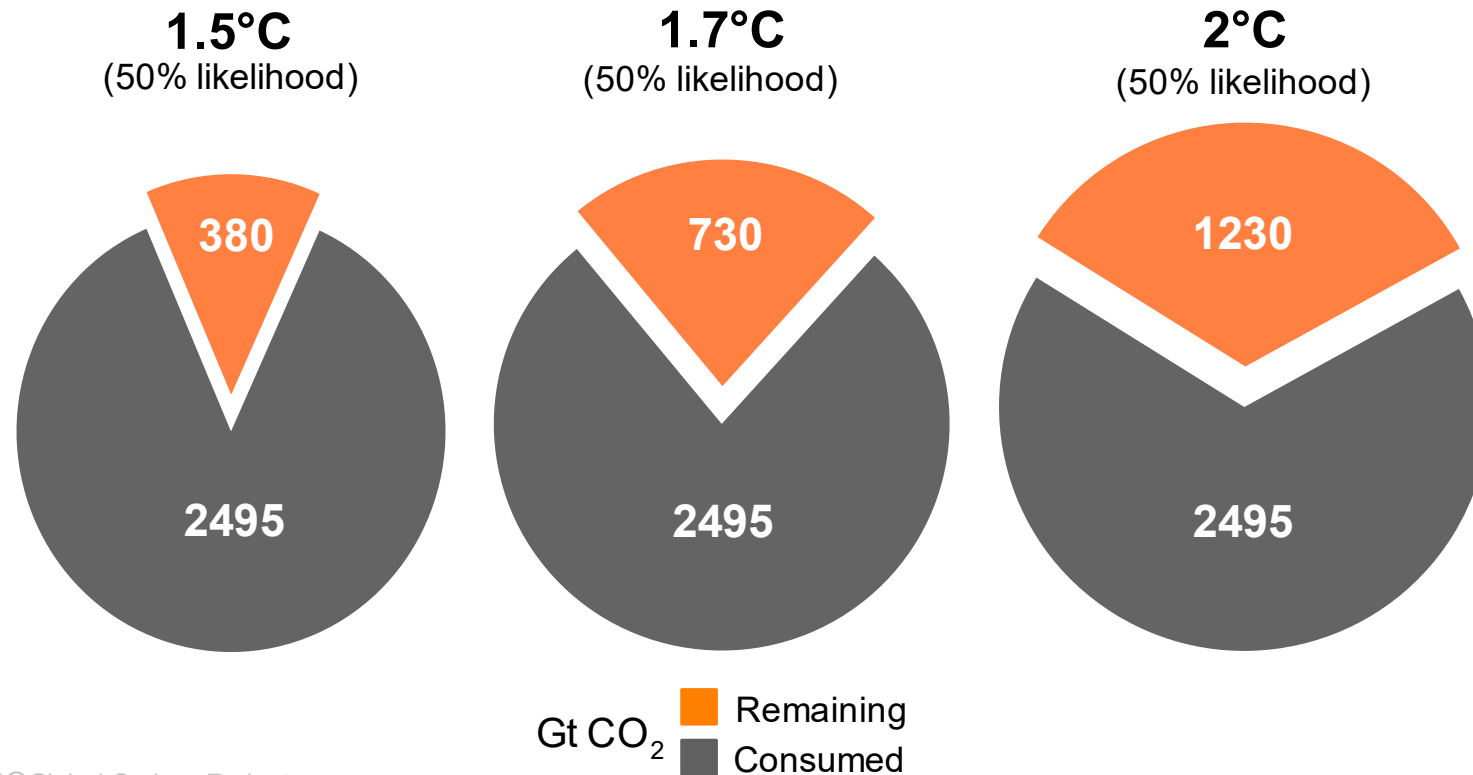
Frequency and increase in intensity of an agricultural and ecological drought event that occurred **once in 10 years** on average across drying regions in a climate without human influence



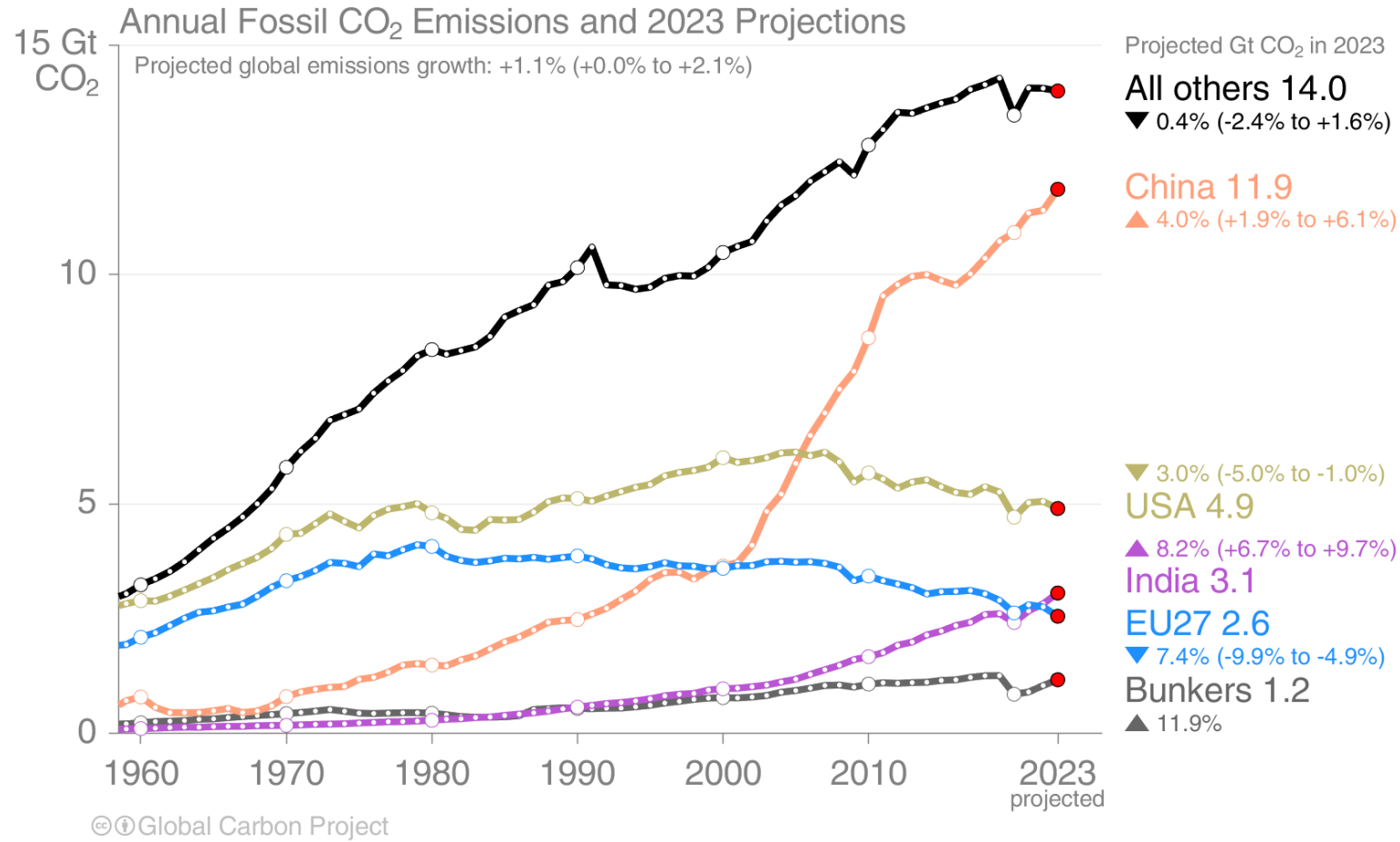
Source: IPCC AR6



# Karbonbudsjett, globalt



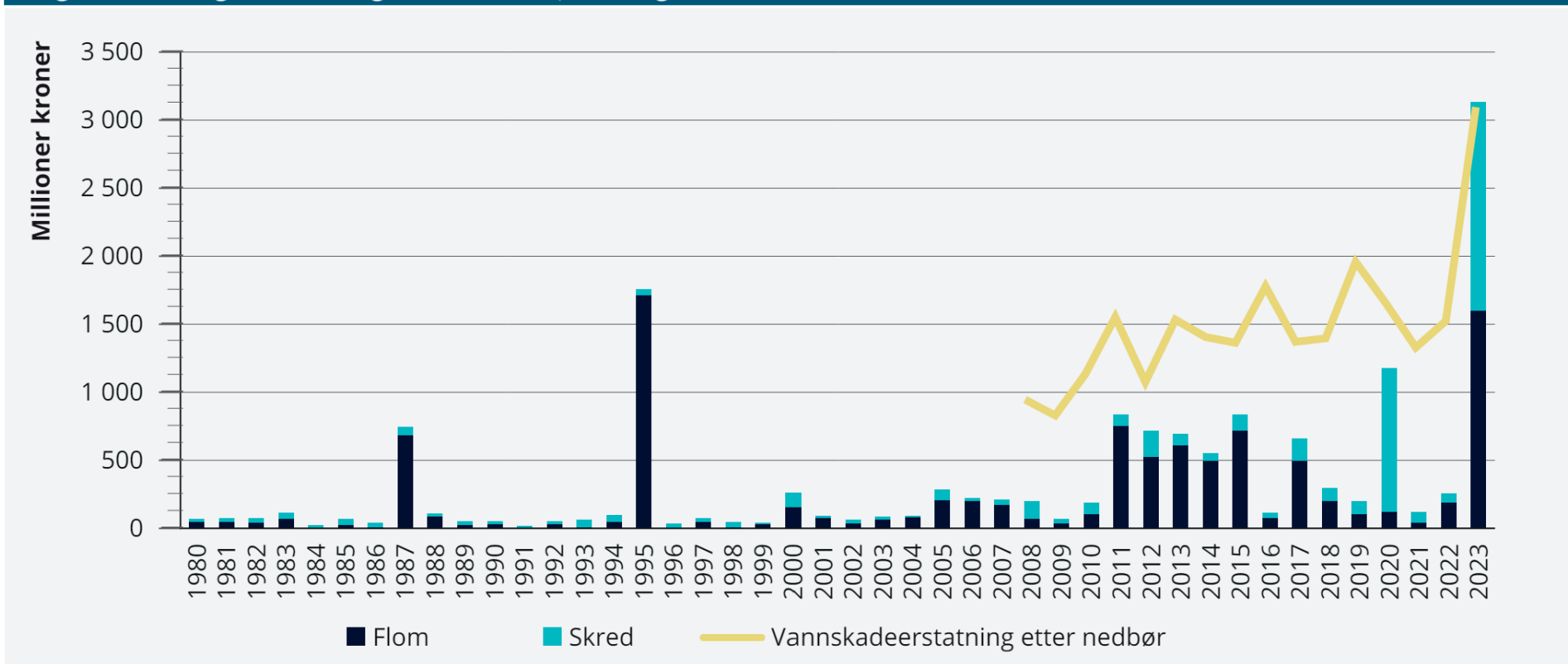
# Årlige CO2 utslipp





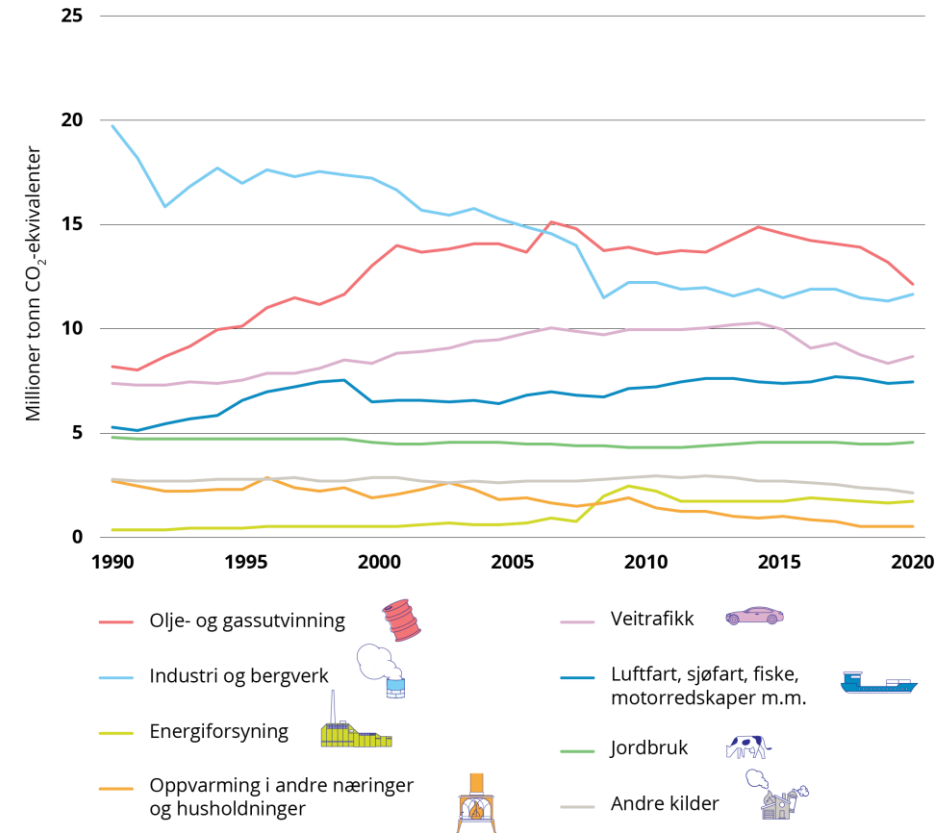
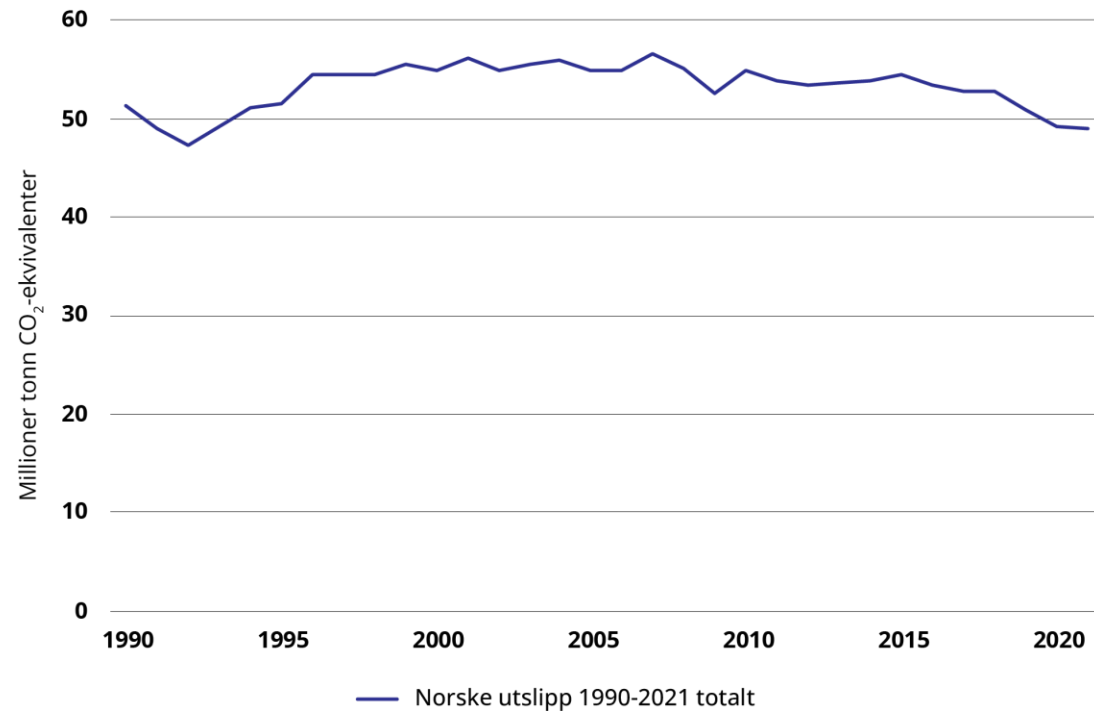
# Finans Norge Klimarapport 2024

Fig. 6 Utvikling i erstatninger etter skred, flom og nedbør



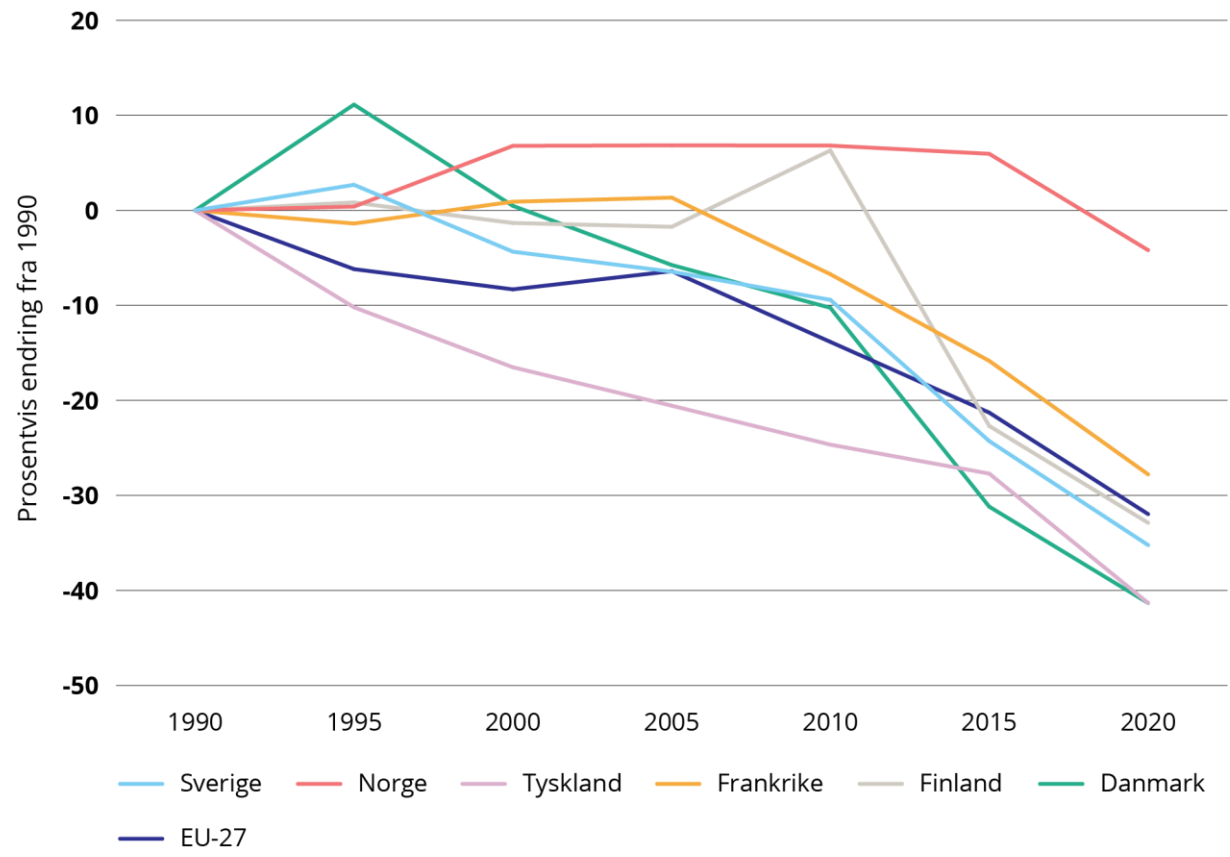
Kilde: Finans Norge, Norsk Naturskadepool. KPI-justert erstatningsbeløp i millioner kroner

# Klimagassutslipp i Norge

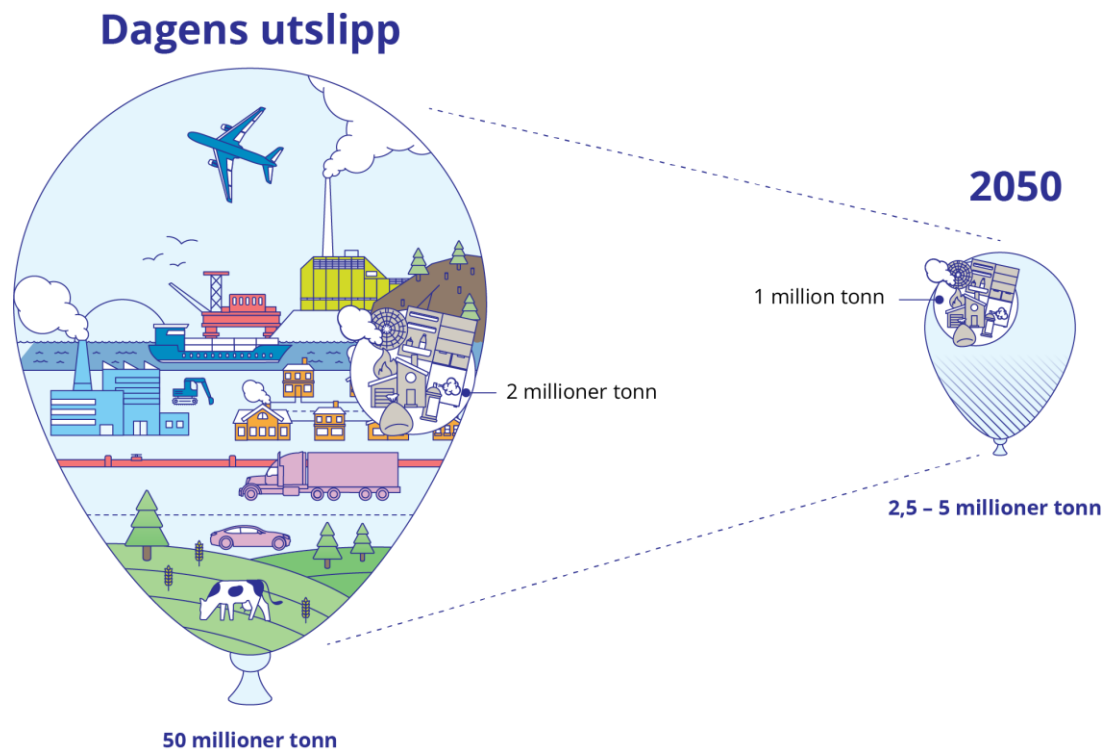




# Utslippsreduksjoner i våre naboland



# Ambisjoner for 2050

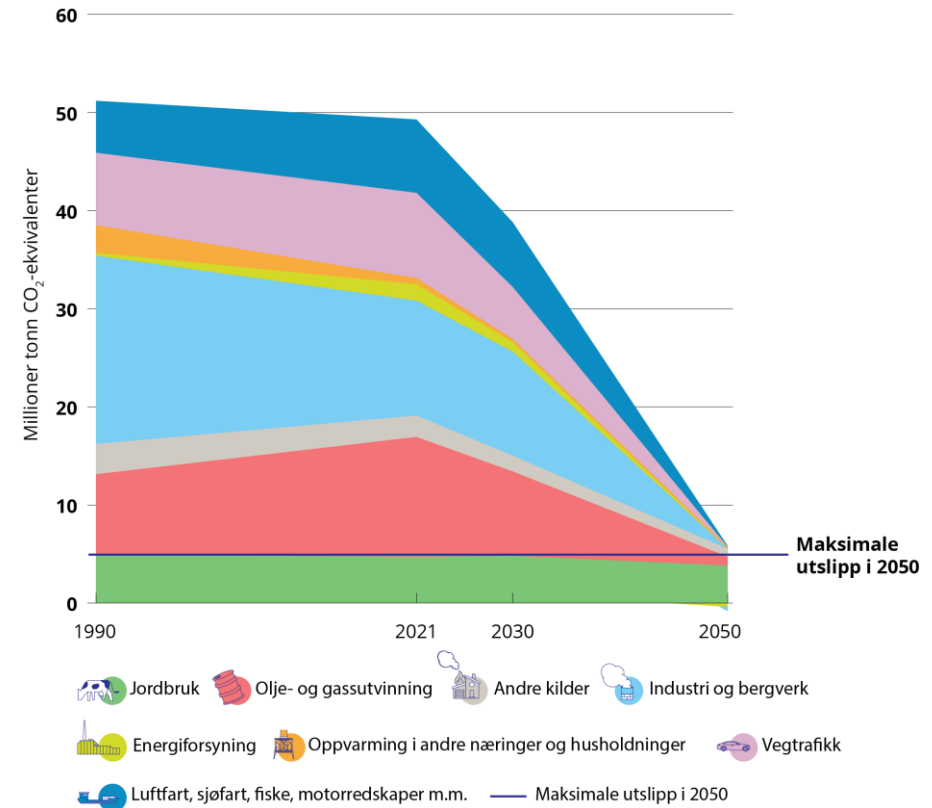


- Utvalget foreslår presisering av målet i klimaloven
  - Tydelig mål for norske territoriale utslipp
  - Drøfting av bruk av fleksibilitet (kvoter)
  - Egne mål for henholdsvis utslipp og opptak i sektoren for skog- og arealbruk
- Eget mål for forbruk
- Økt internasjonal innsats, klimafinansiering



# Teknisk analyse - utslipp i 2050

- Ikke prognose eller anbefaling
- Uten ressursbegrensninger
- Ikke aktivitetsendring
- Krevende utslippskutt for alle sektorer

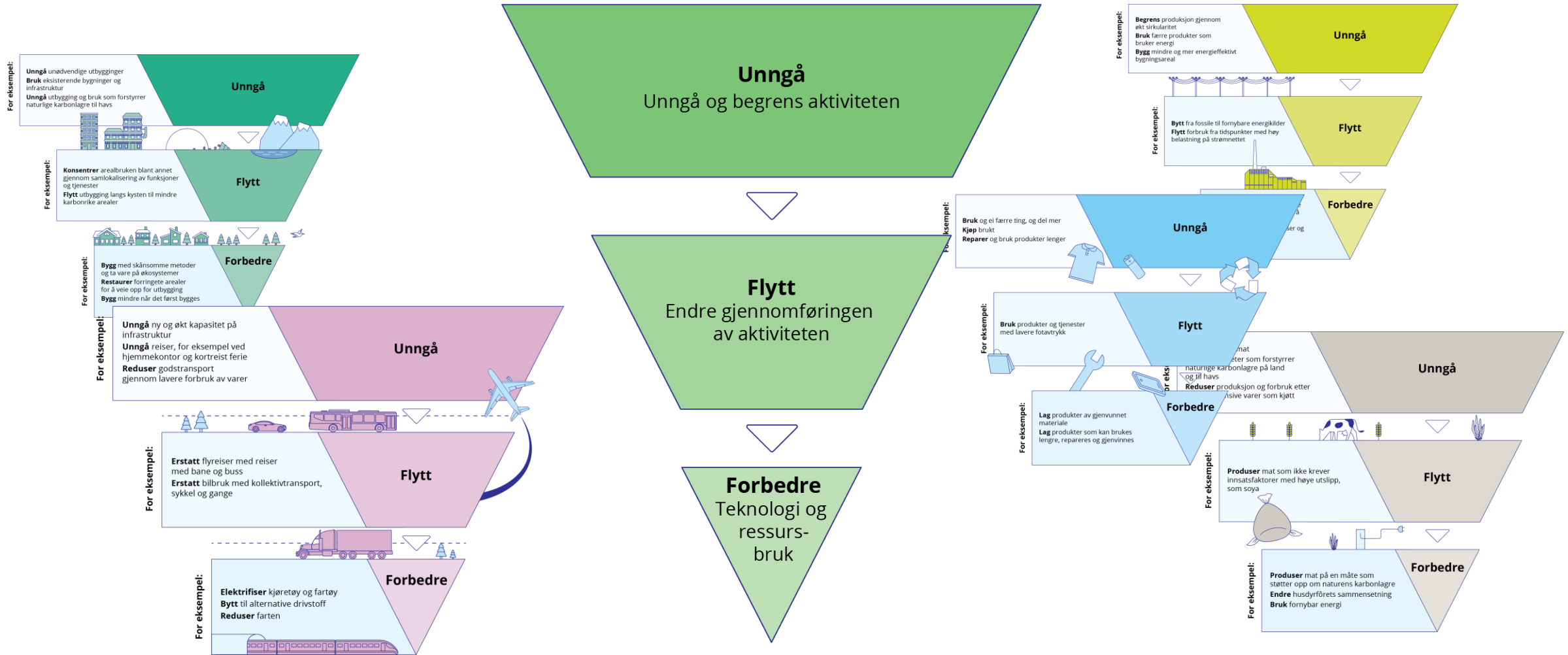


# Ressursknapphet - binder alle sektorer sammen

- Energi
- Biomasse
- Areal
- Kompetanse
- Mineraler og metaller
- Utslippsbudsjett



# Sirkularitet og ressursbruk



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**Tusen takk!**

**Kristin Halvorsen**

[www.cicero.oslo.no](http://www.cicero.oslo.no)

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