



Hvad kan vi forvente af vejret de kommende år?



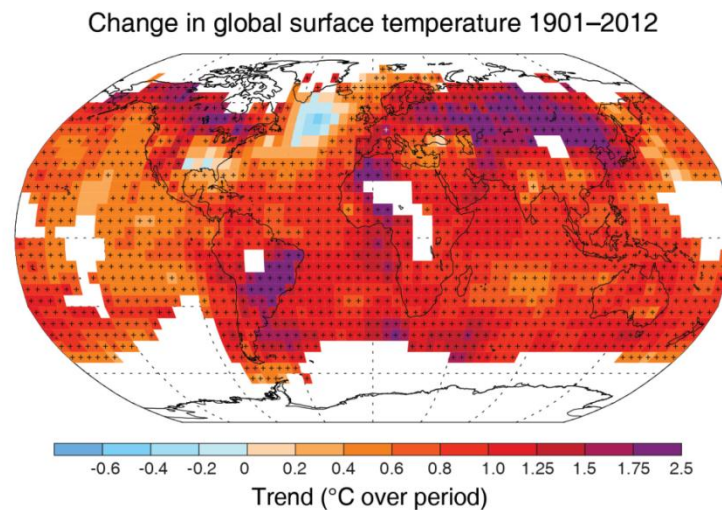
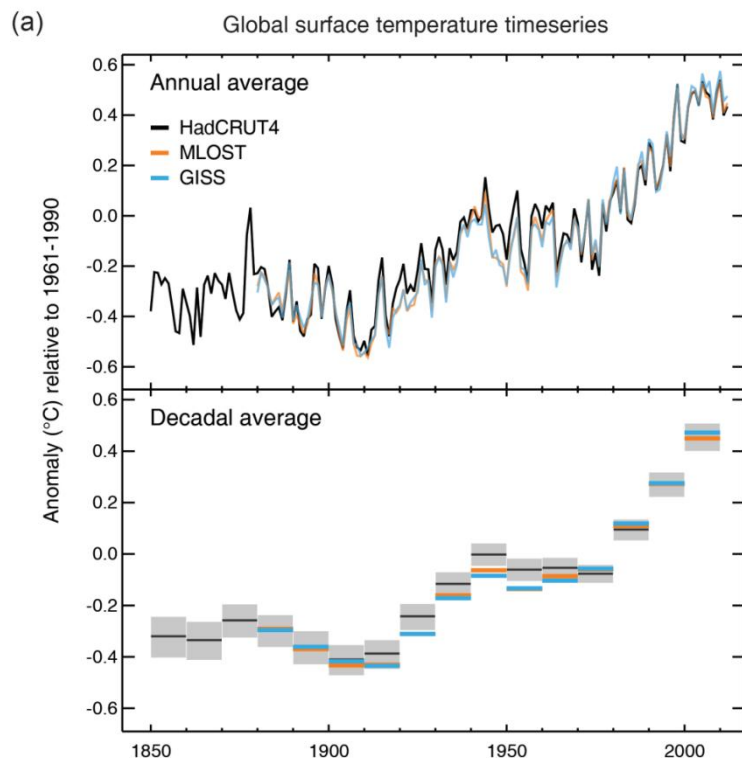
Klimascenarier og mulige påvirkninger
af det byggede miljø

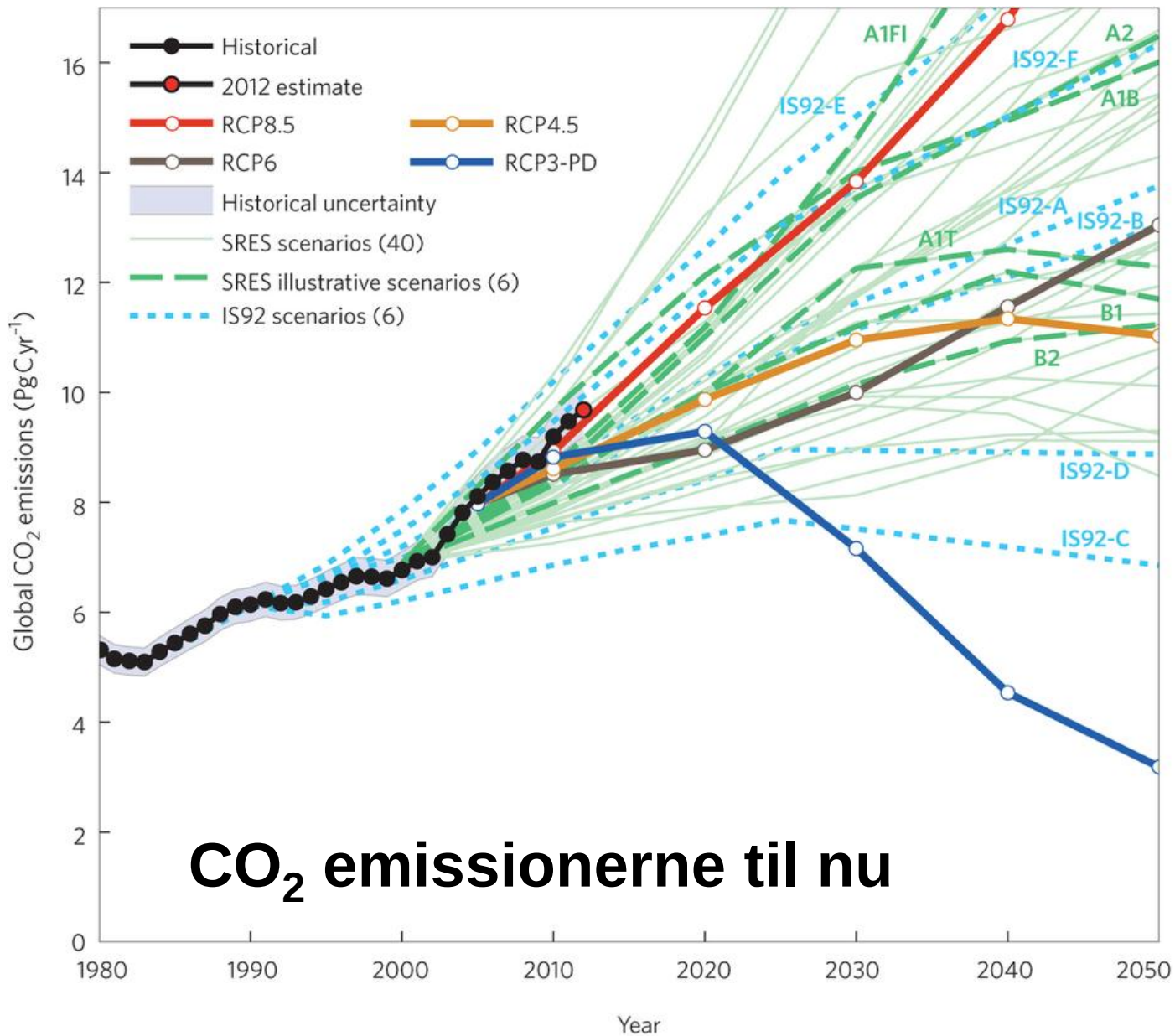
Jens Hesselbjerg Christensen
Forskningsleder
Danmarks Klimacenter, DMI

Oversigt

- **Klimaet her og nu**
- **Lidt klimascenarier generelt**
- **Resultater for Danmark**
- **Bedste gæt, så hvad nu?**

Den globale temperatur opdateret



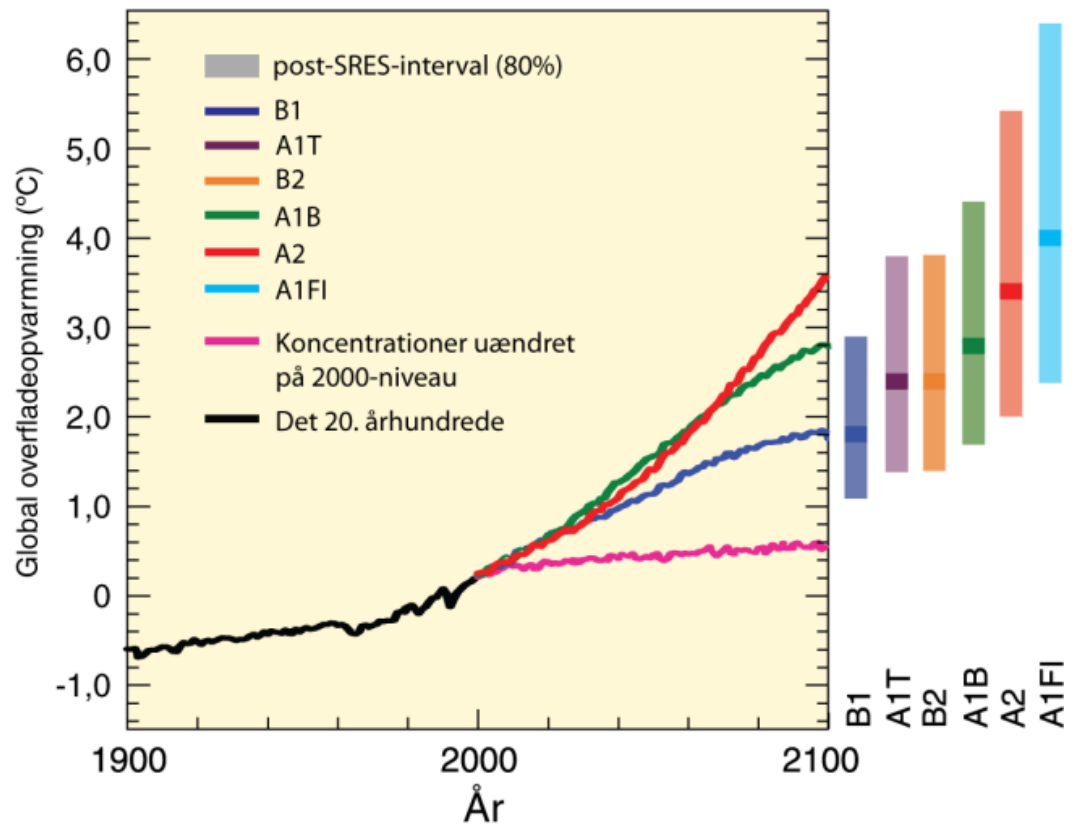
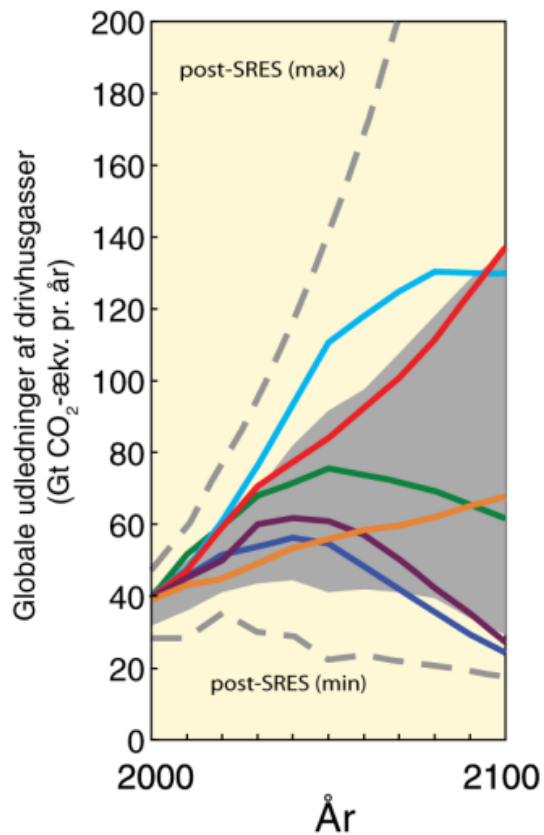


CO₂ emissionerne til nu

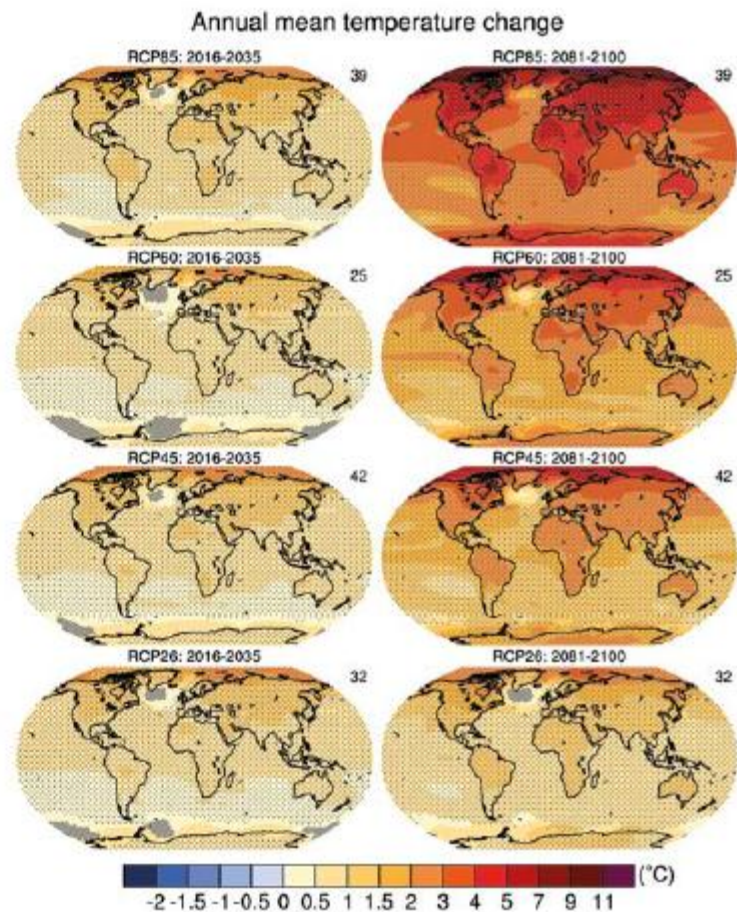
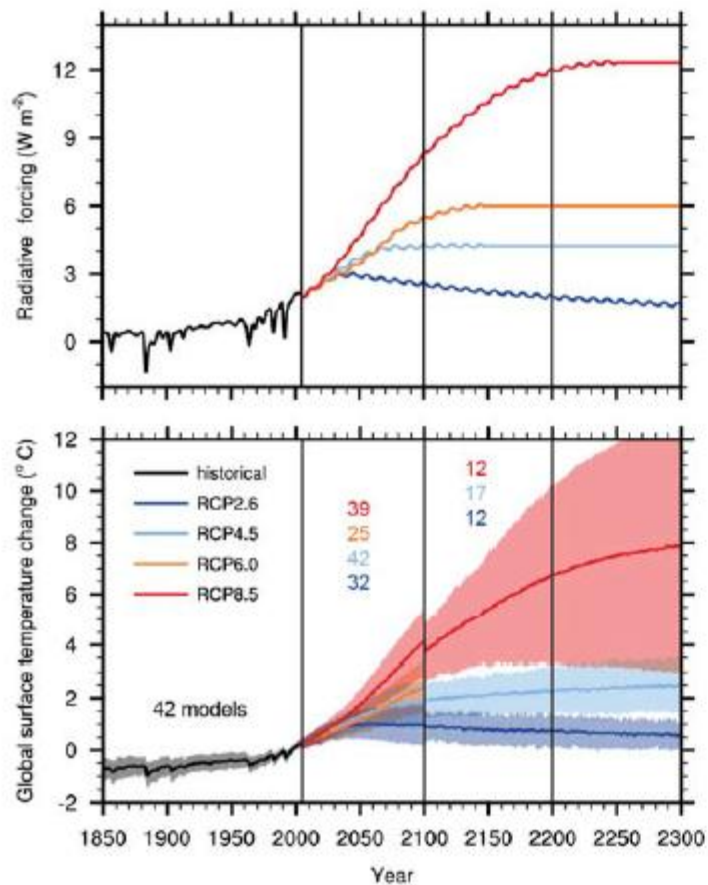
Peters, G.P., R.M. Andrew, T. Bodenet, J.G. Canadell al. (2013) The challenge to keep global warming below 2 °C. Nature Climate Change, 3, 4-6. doi:10.1038/nclimate1783

<http://www.nature.com/nclimate/journal/v3/n1/full/nclimate1783.html>

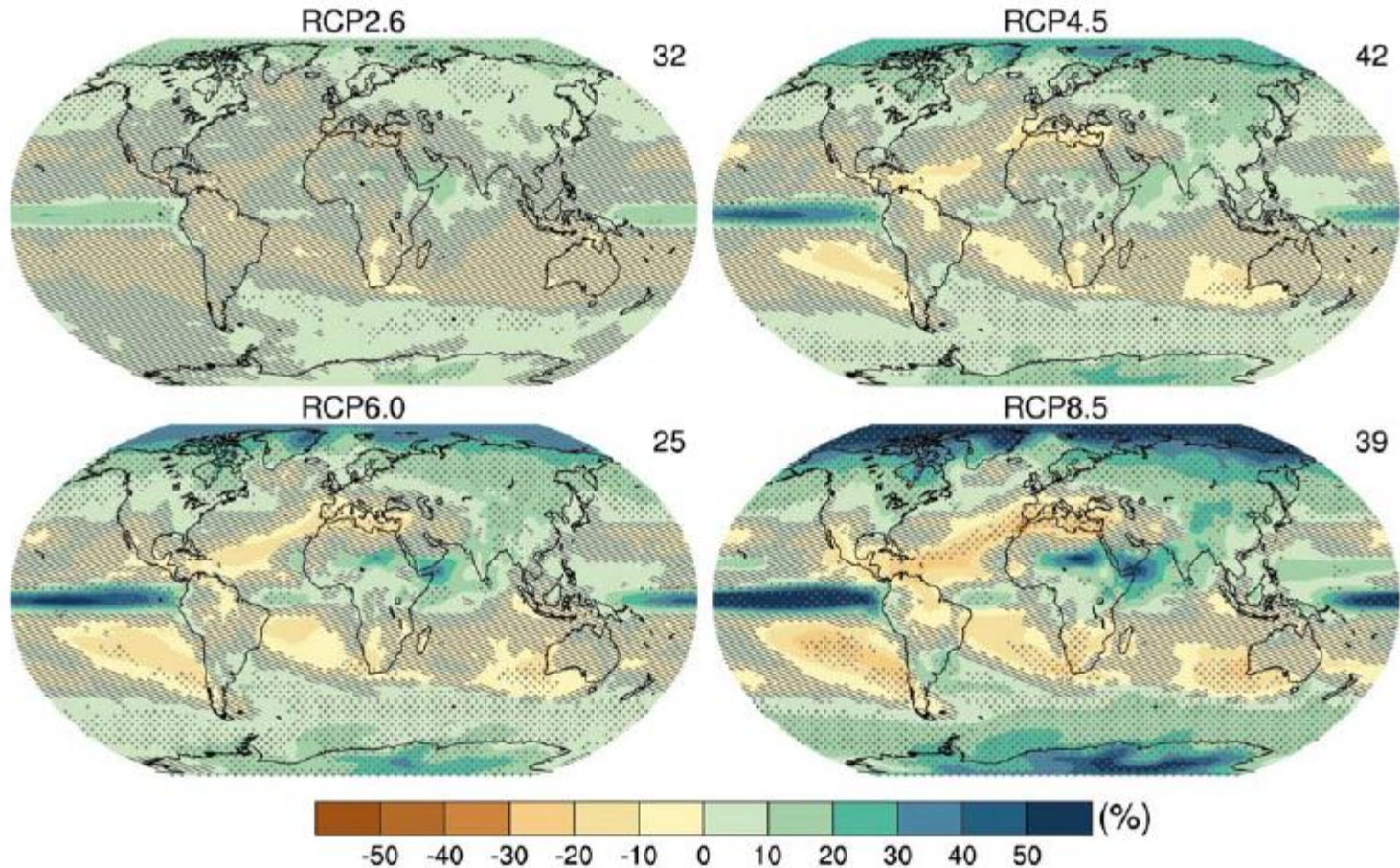
Globale klimaprojektioner



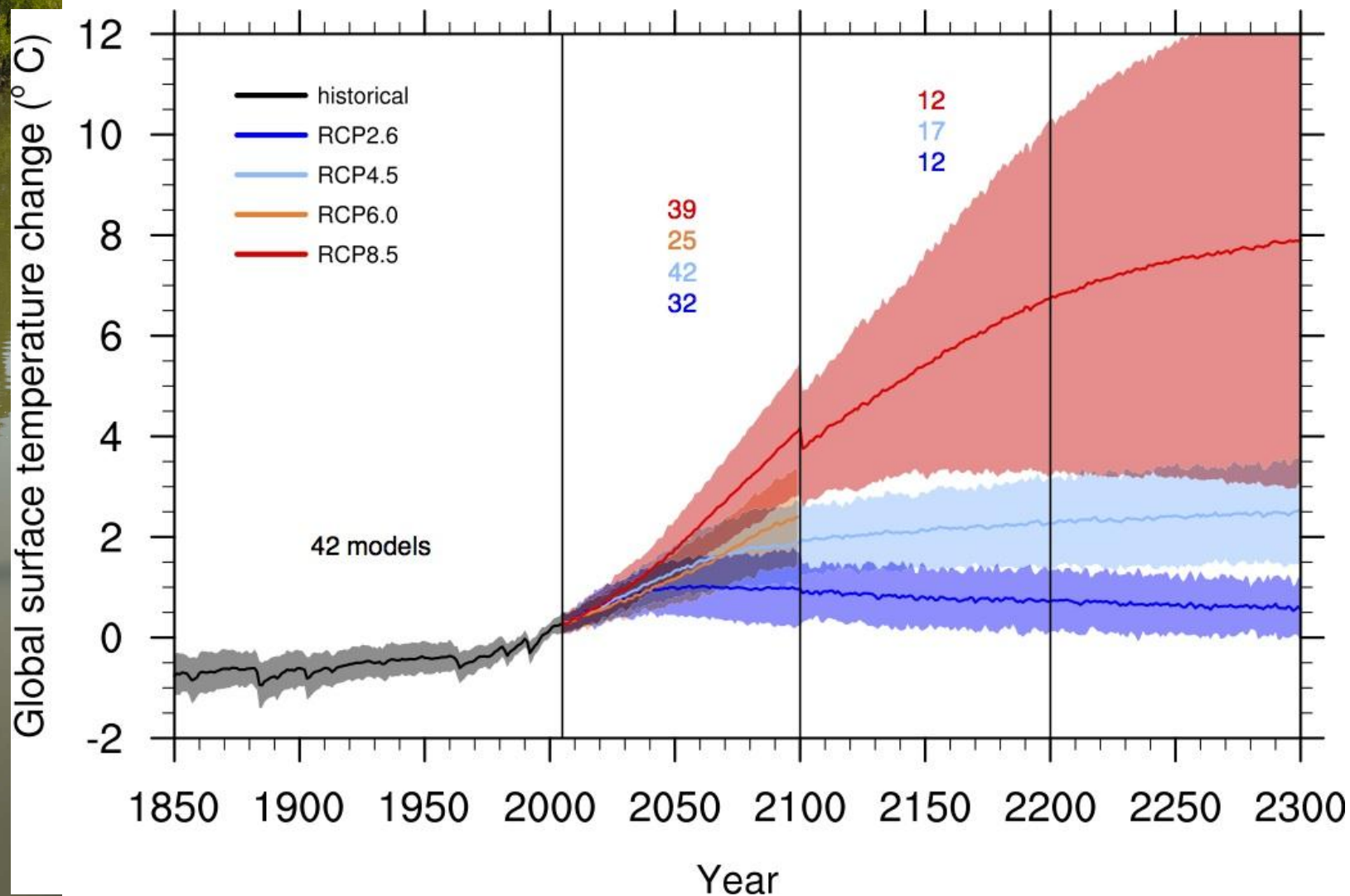
Projektioner



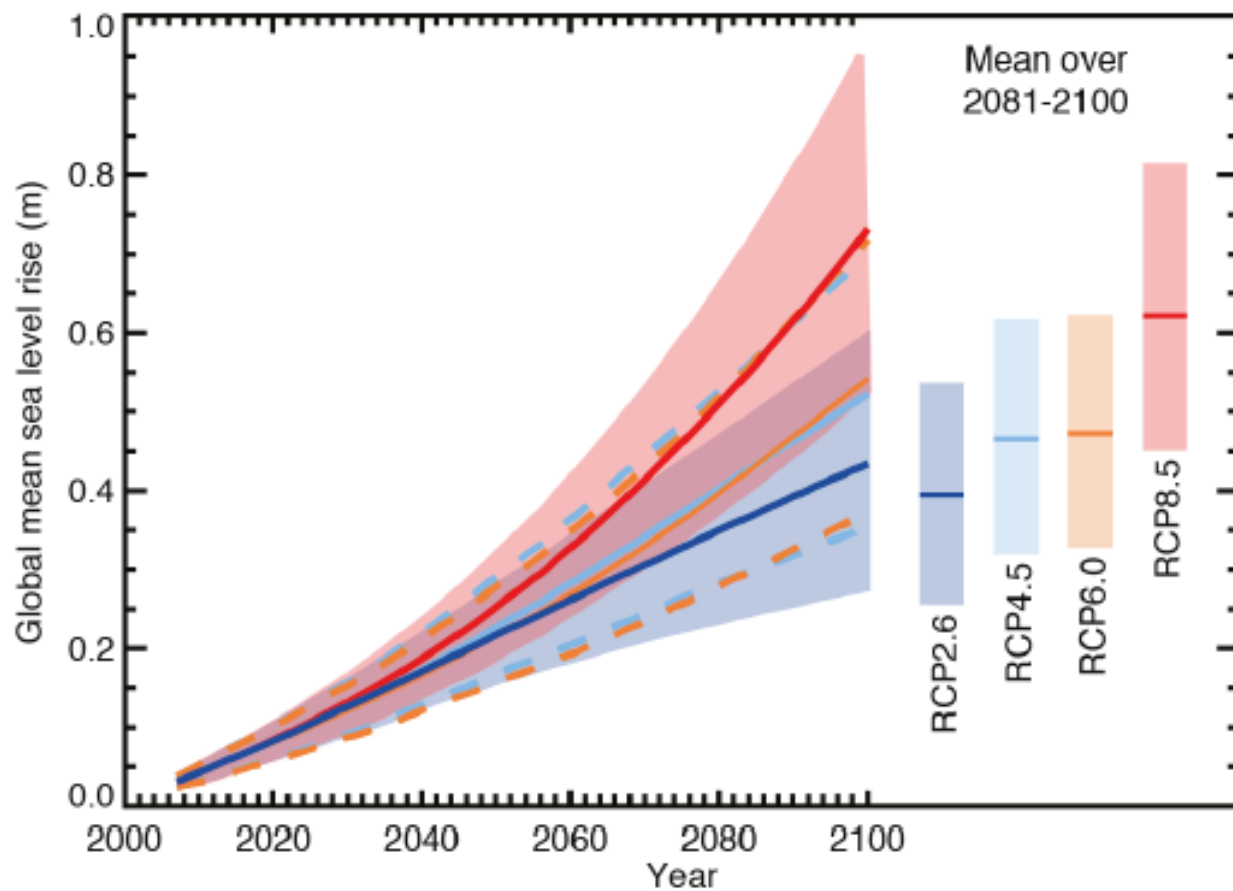
Annual mean precipitation change (2081-2100)



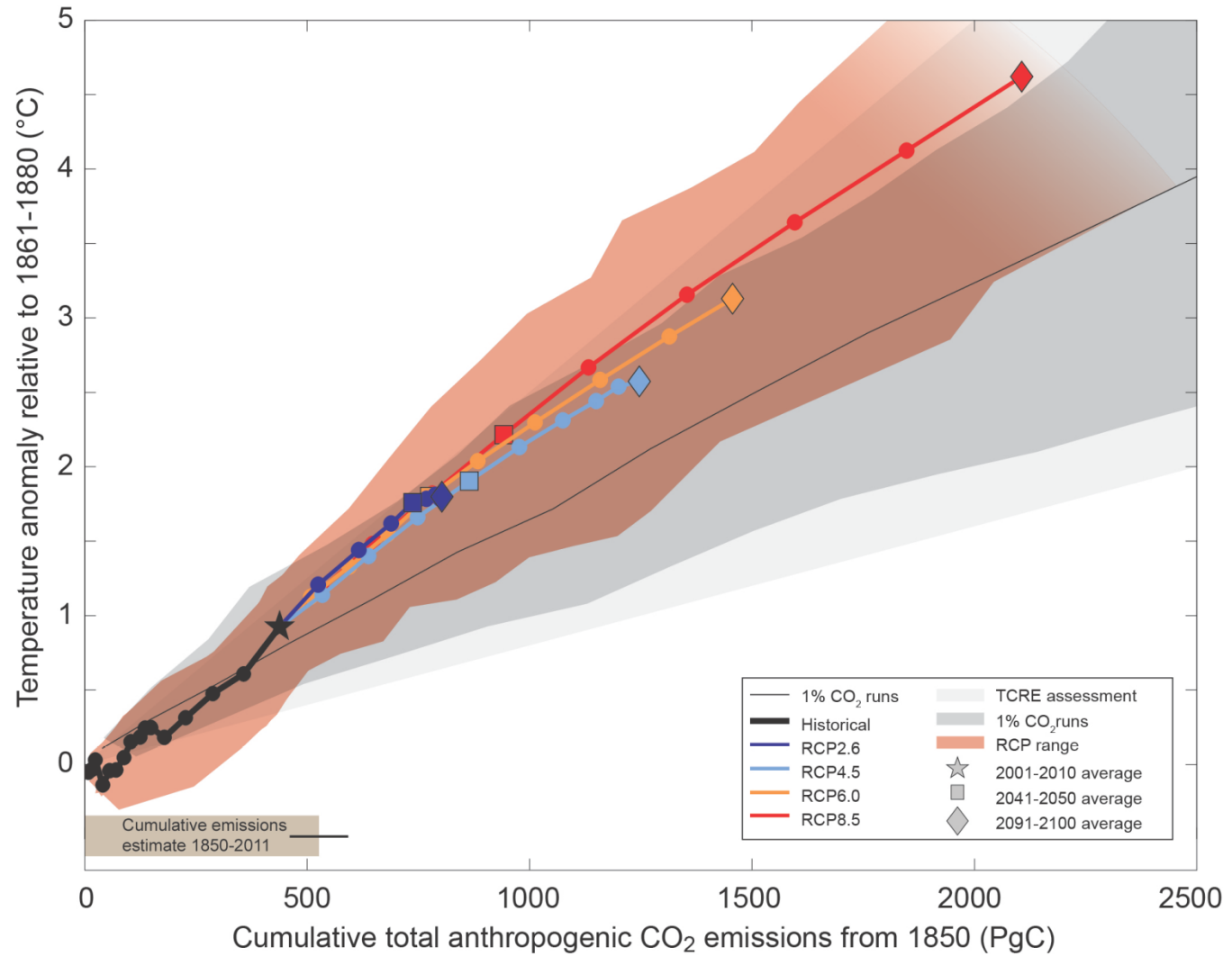
Globale temperaturer frem til 2300

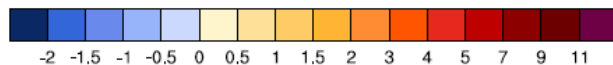
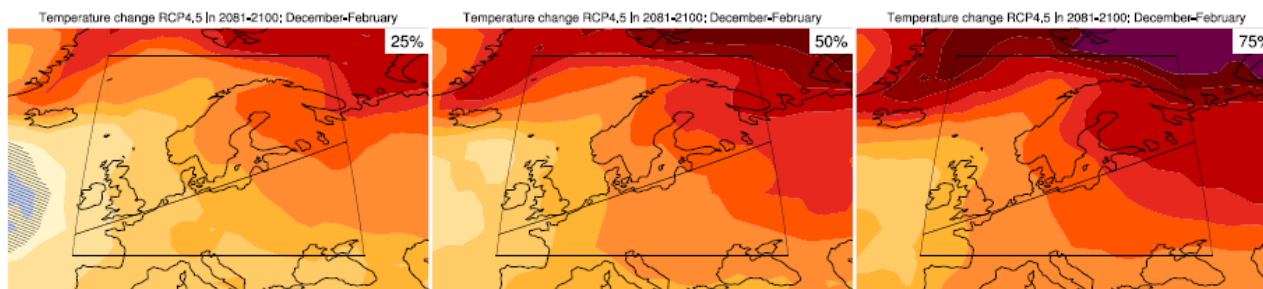
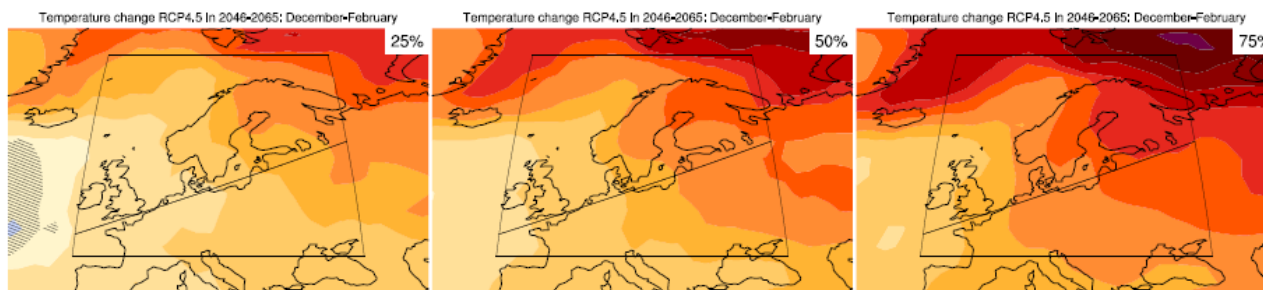
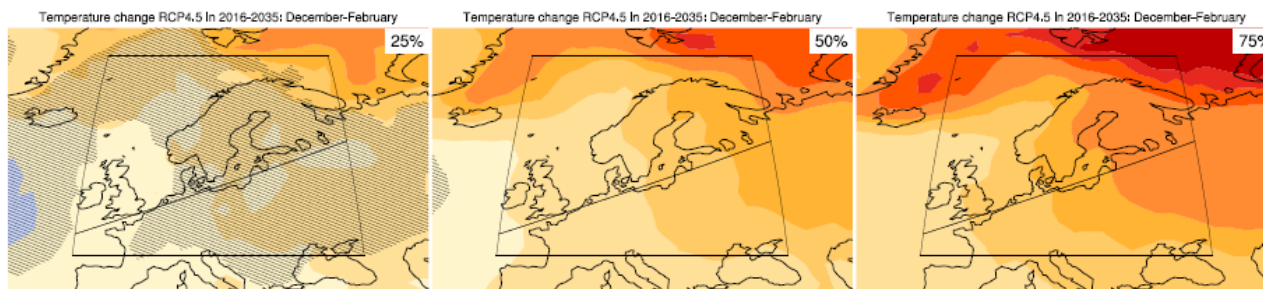
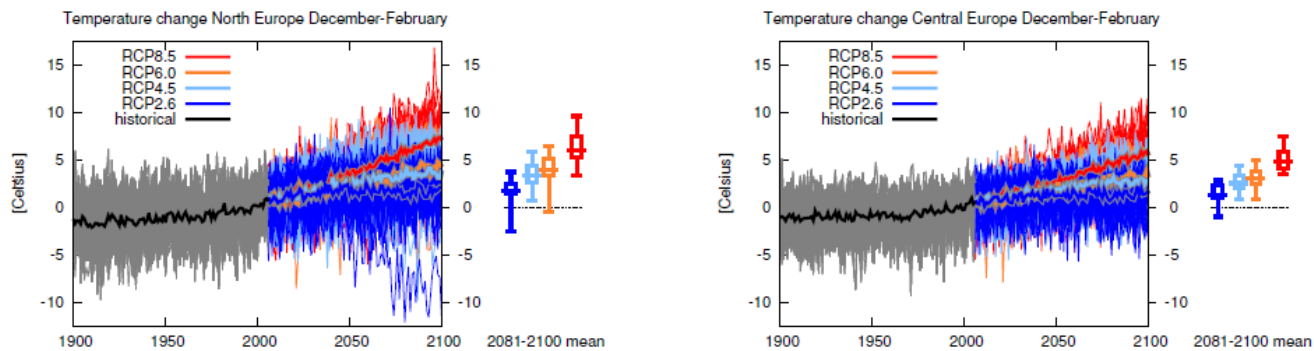


Global vandstand

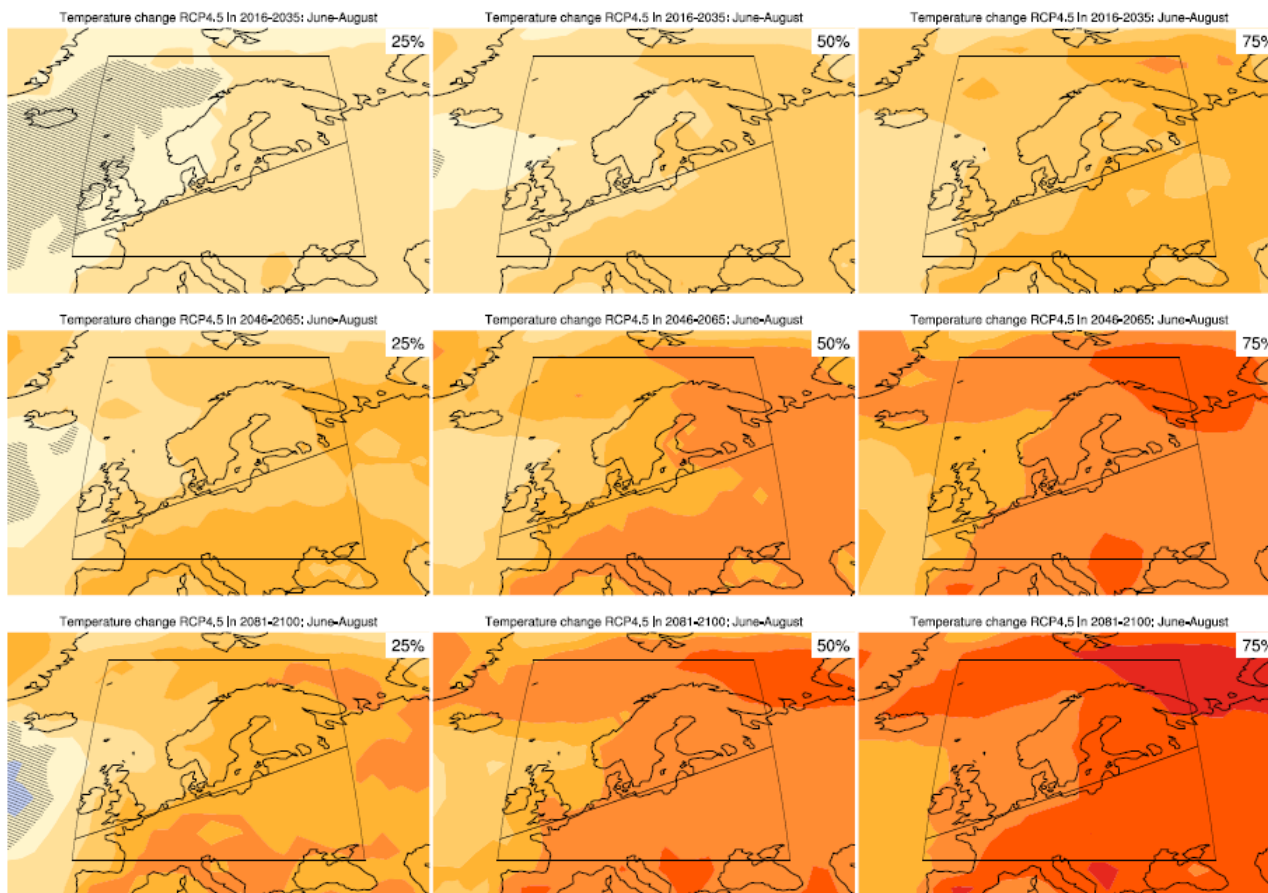
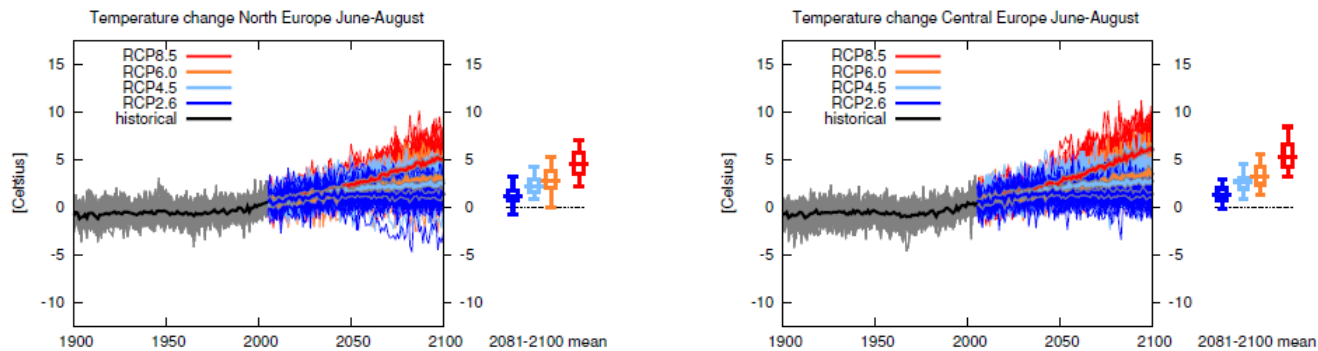


Climate Change Commitment

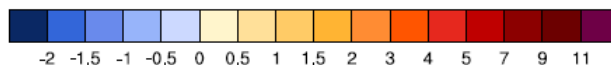




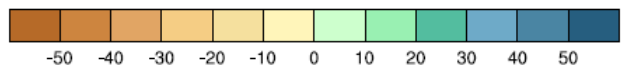
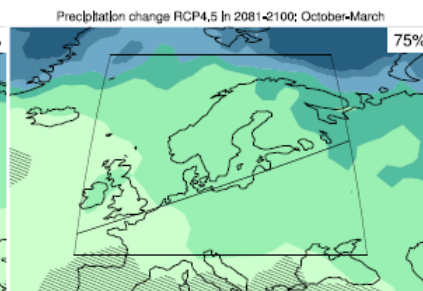
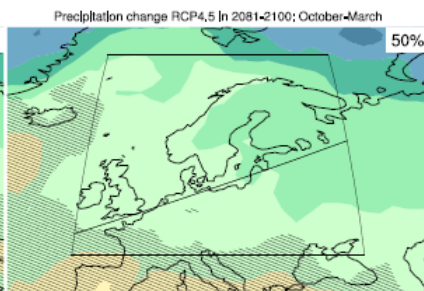
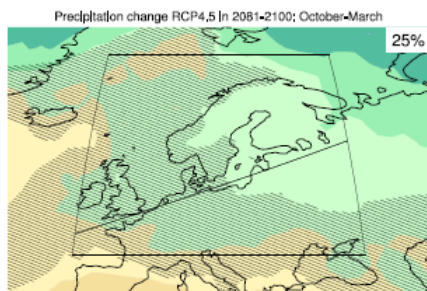
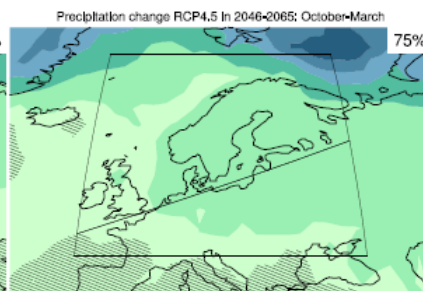
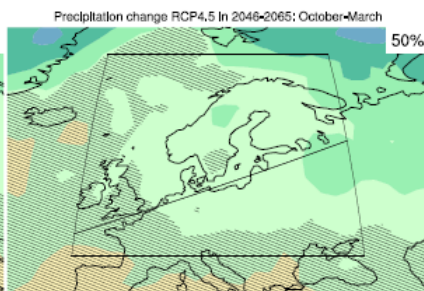
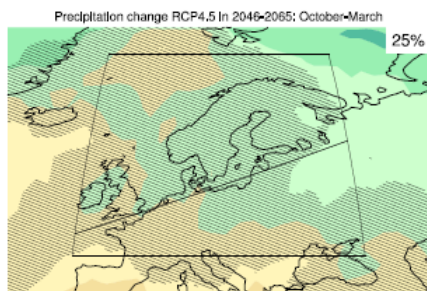
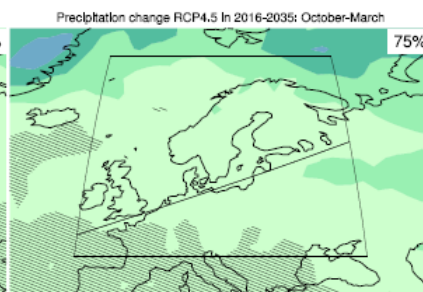
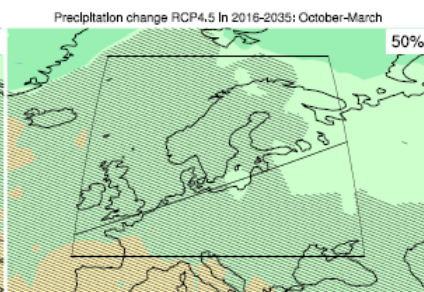
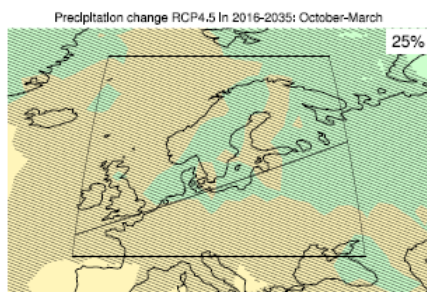
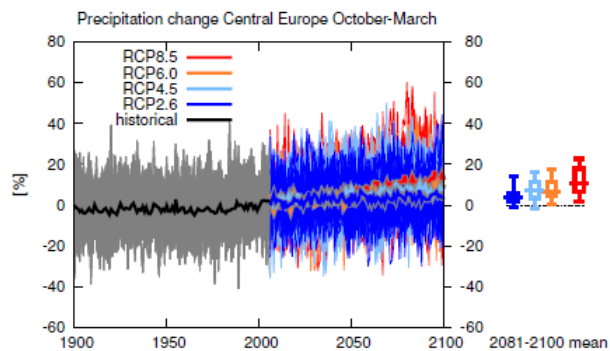
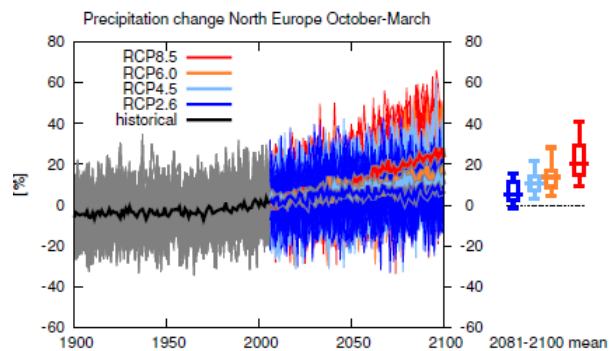
[°C]



2

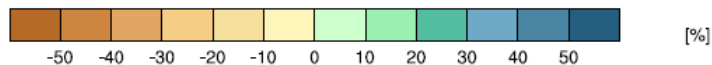
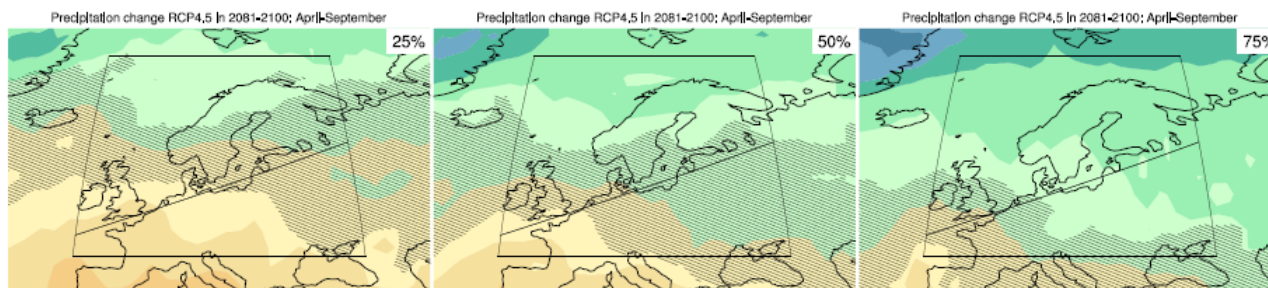
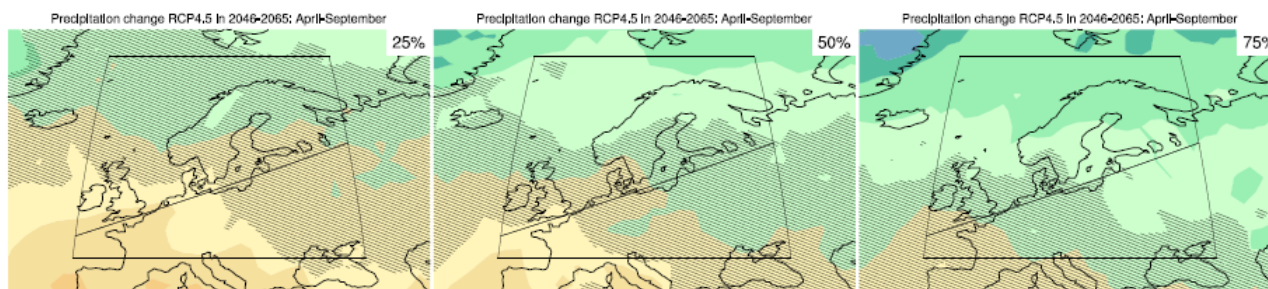
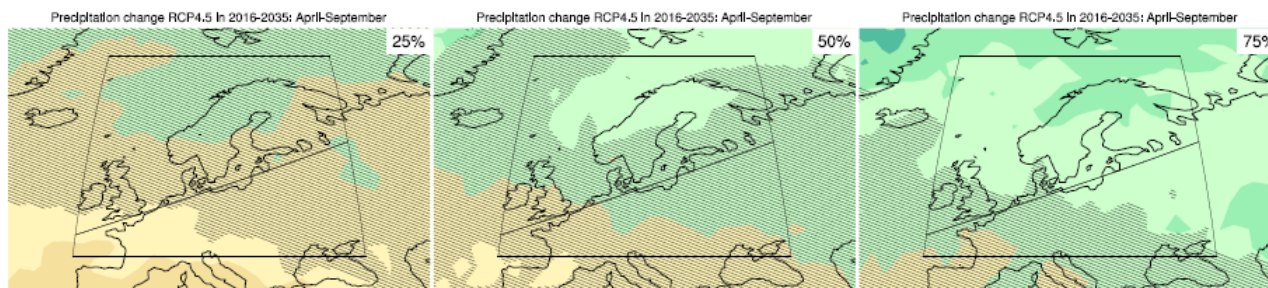
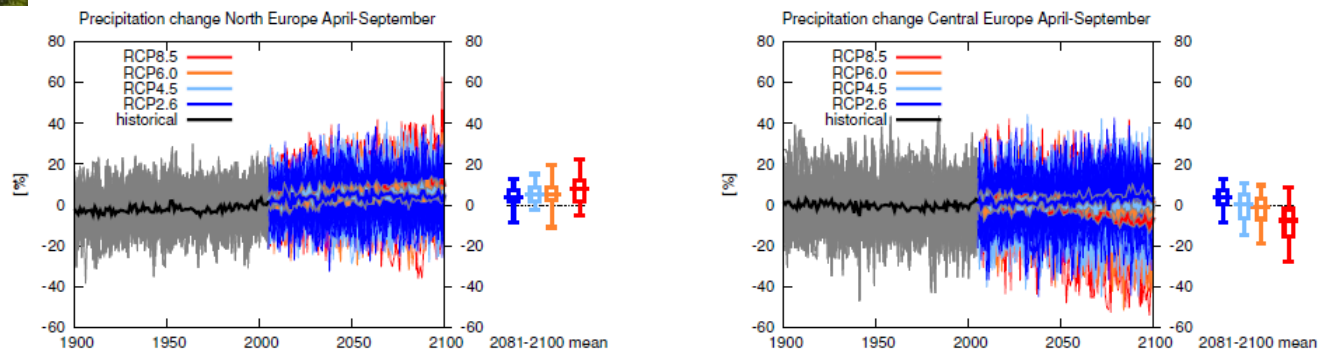


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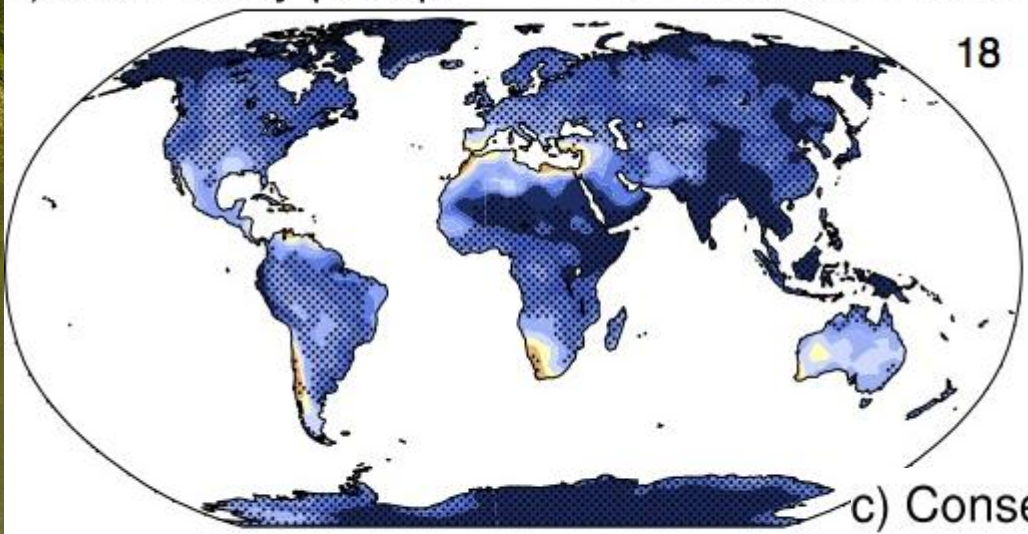
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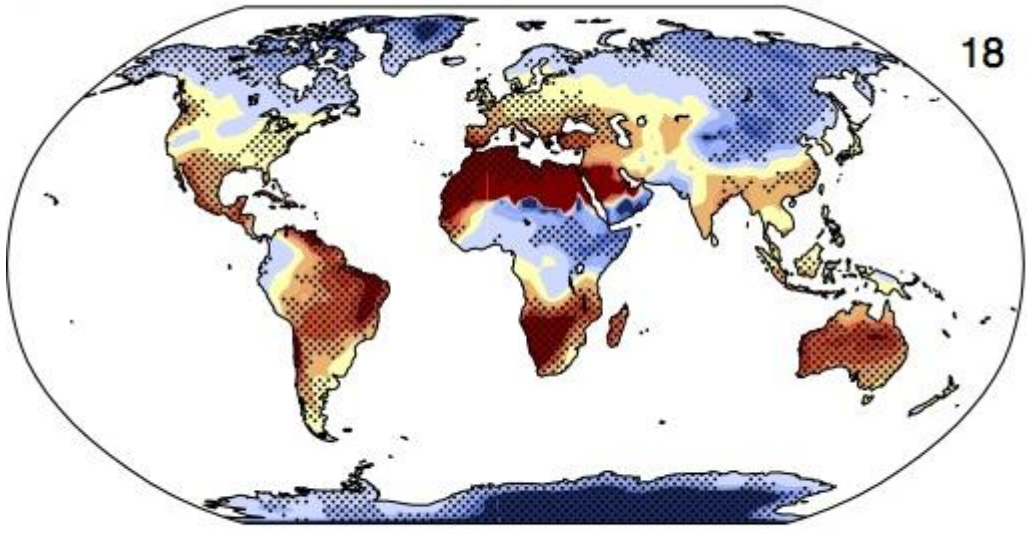


b) max. 5 day precip RCP8.5: 2081-2100

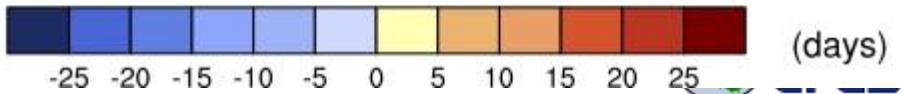


18

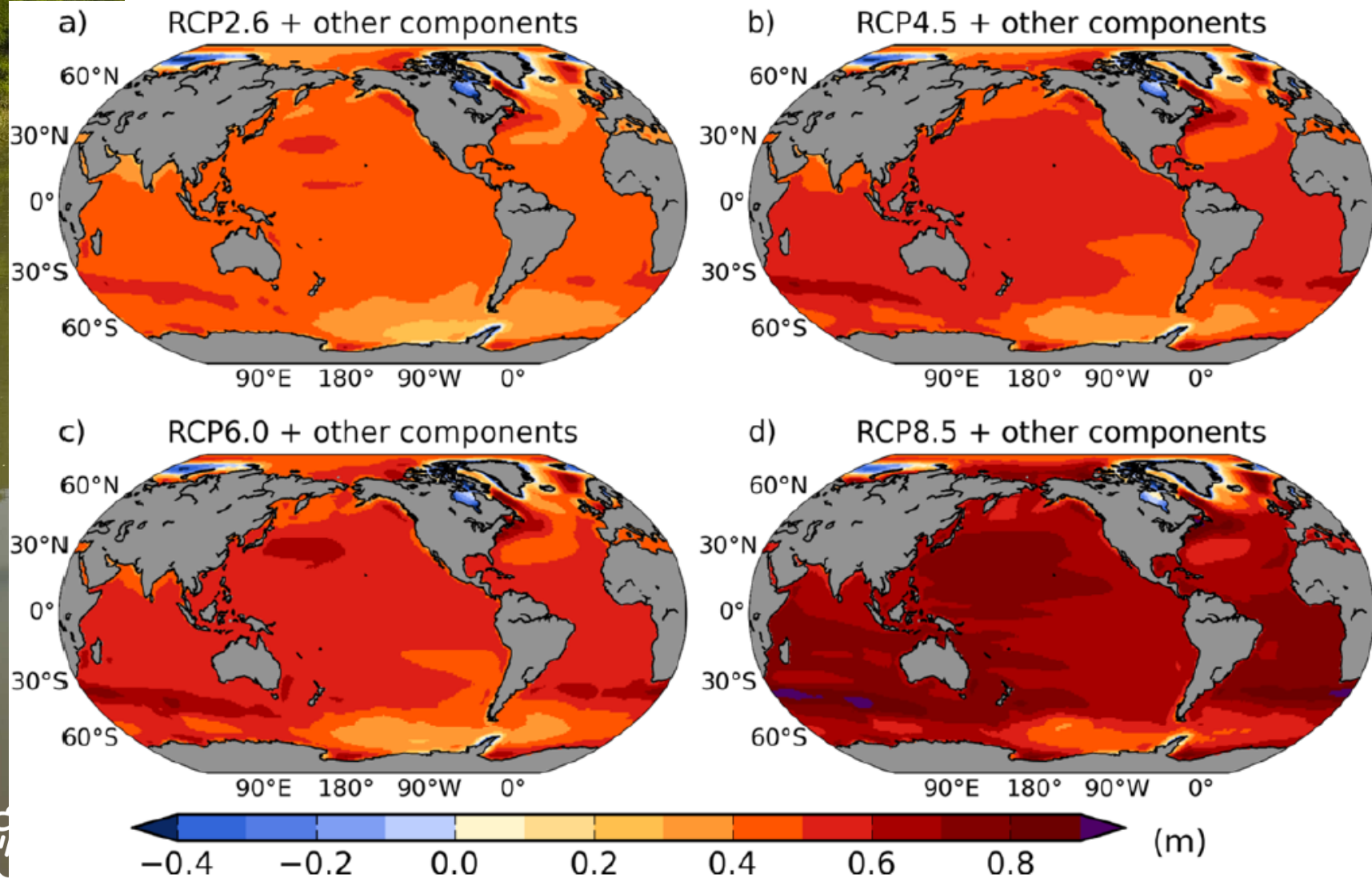
c) Consecutive Dry Days RCP8.5: 2081-2100



18



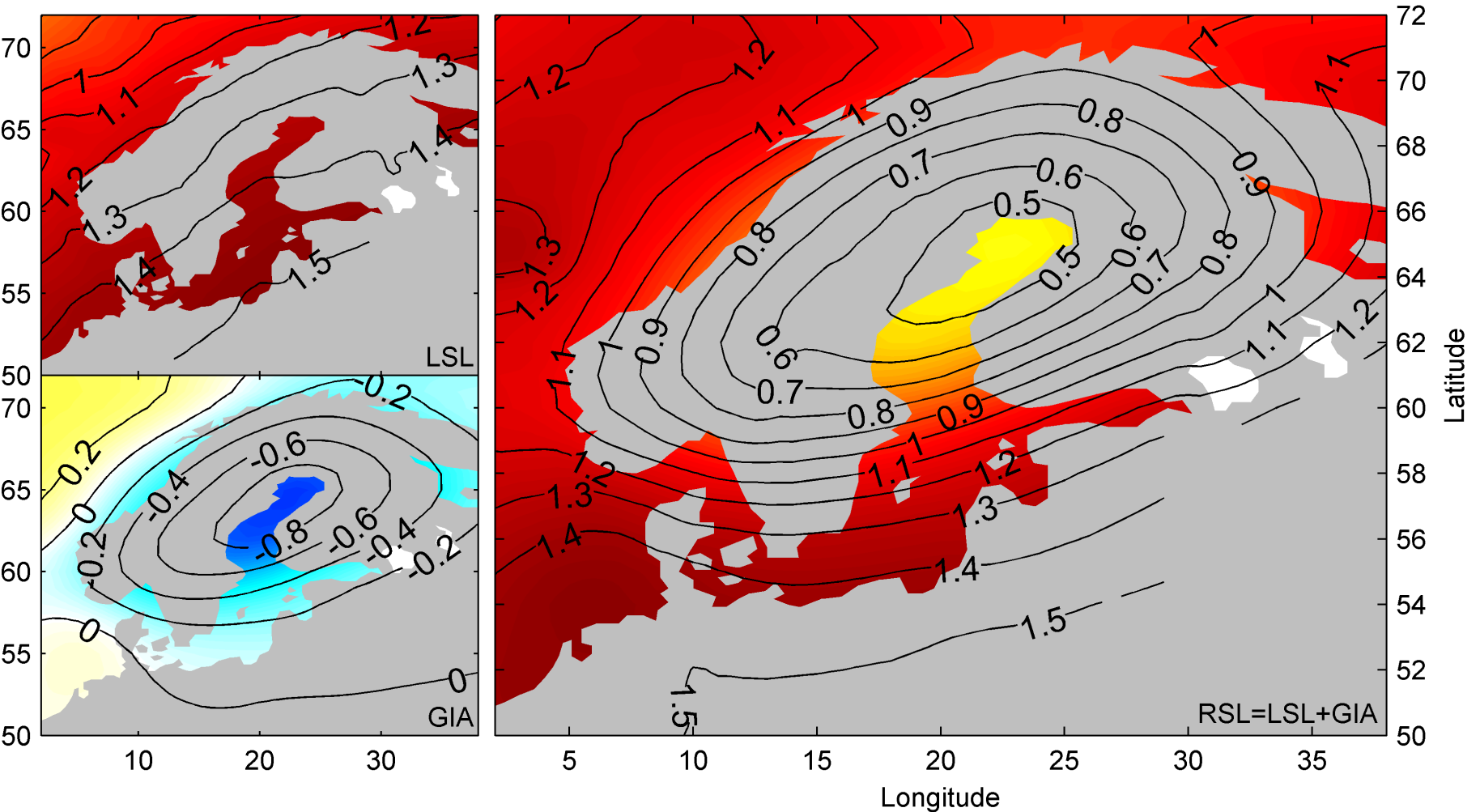
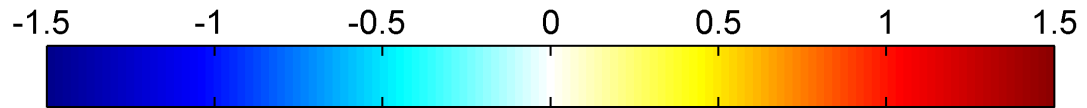
Regional vandstrand 2081-2100 rel. 1986-2005





High-end estimat (for $\Delta\text{GMSL} = 130\text{cm}$)

Grinsted 2014



Forventede klimaændringer i Danmark – 1 (under A1B scenariet)

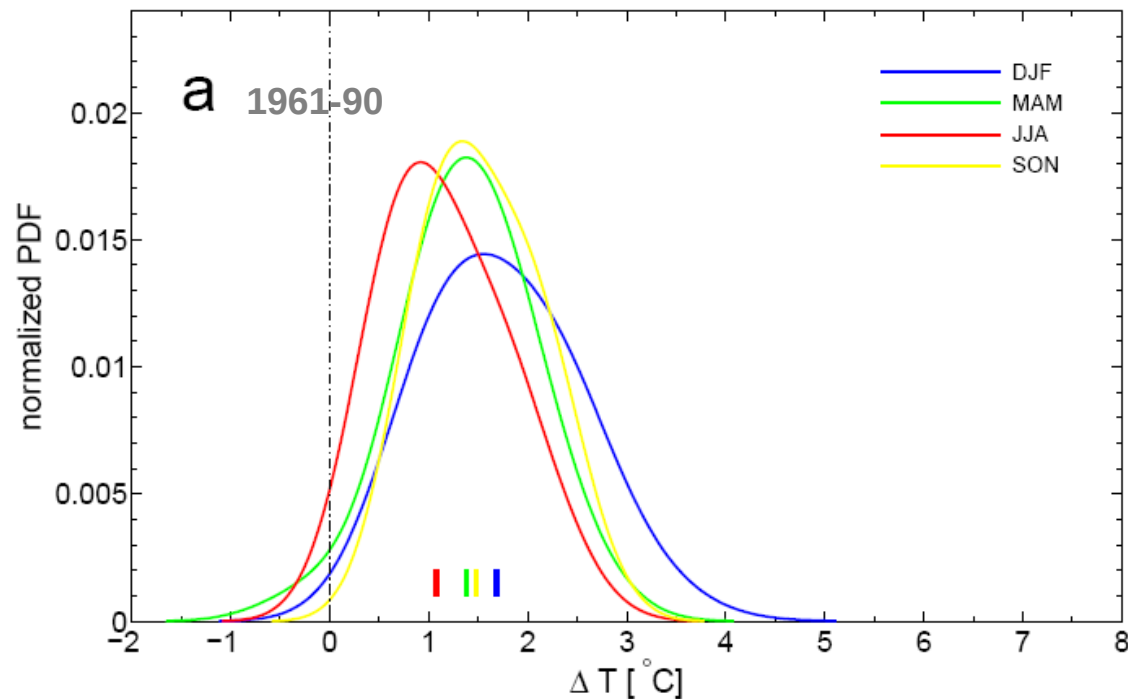
- Højere middeltemperaturer, specielt om vinteren (stigende nogenlunde som globalt middel)
- Højere max. temperaturer
- Længere hedebølger



Kilde: DMI (2010)

Danmark 2021-2050

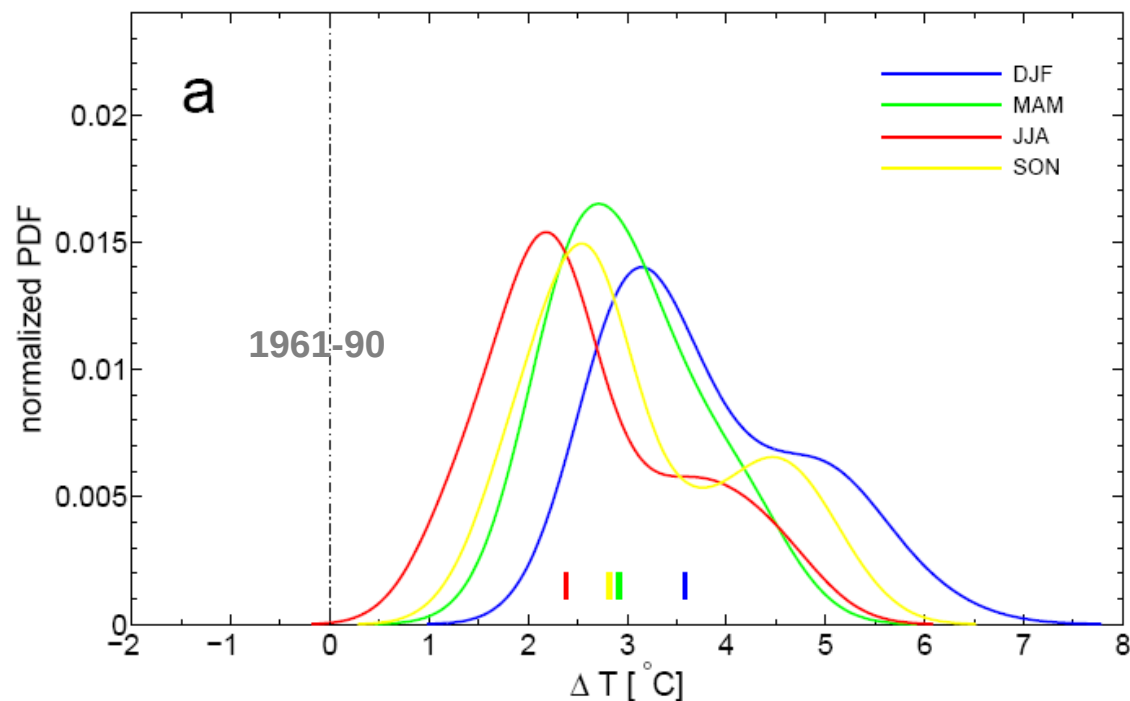
- Højere middeltemperaturer, specielt om vinteren



Kilde: DMI (2010)

Danmark 2071-2099

- Højere middeltemperaturer, specielt om vinteren



Kilde: DMI (2010)

Forventede klimaændringer i Danmark - 2

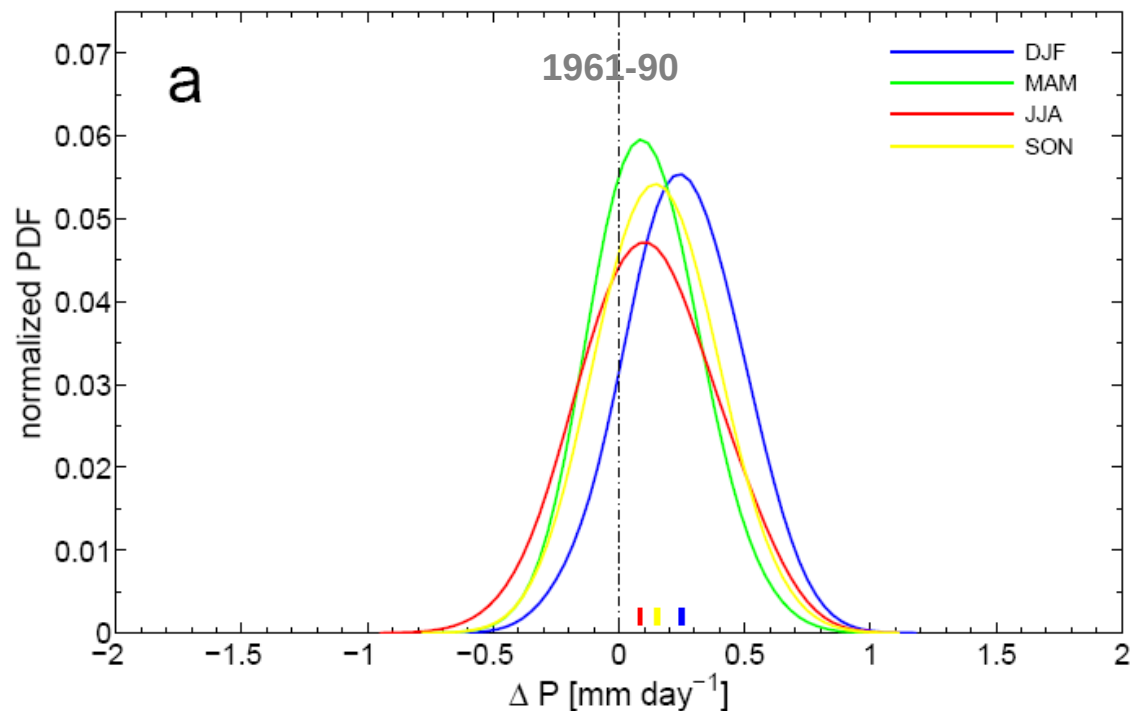
- Mere årsmiddelnedbør, store årstidsvariationer
- Markant mere nedbør om vinteren
- Generelt mere kraftig nedbør (døgn og 5-døgns nedbør)
- De kraftigste nedbørshændelser om sommeren bliver mere "ekstreme" (døgnnedbør)



Kilde: DMI (2010)

Danmark 2021-2050

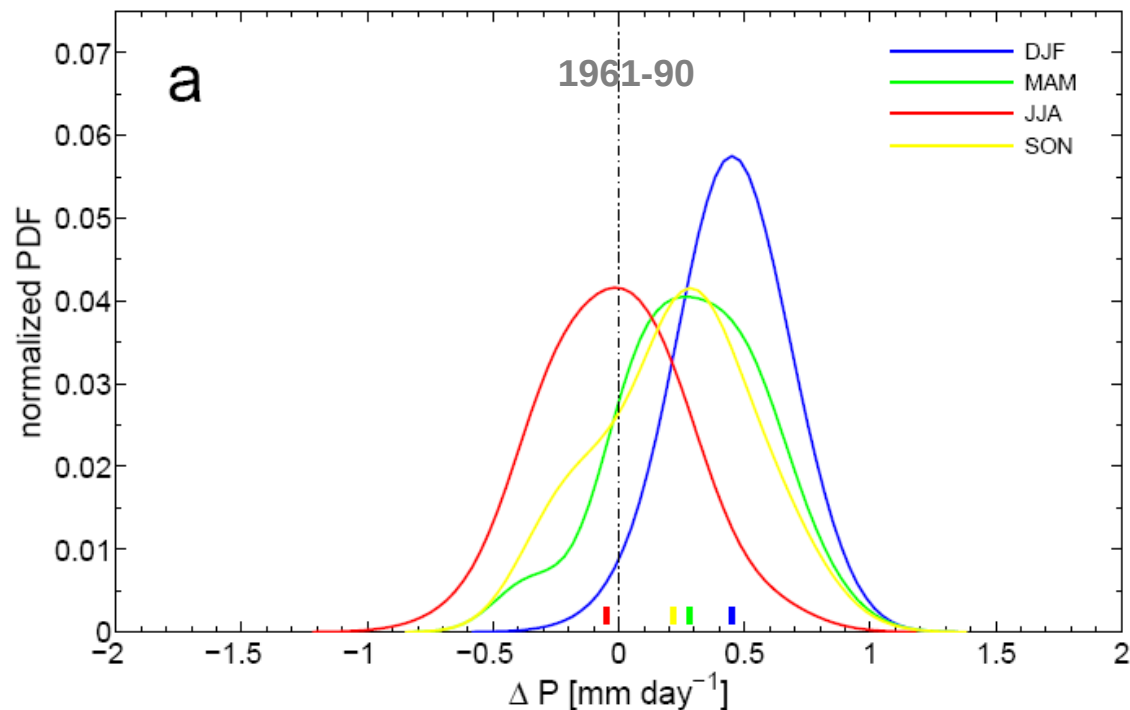
- Mere årsmiddelnedbør



Kilde: DMI (2010)

Danmark 2071-2099

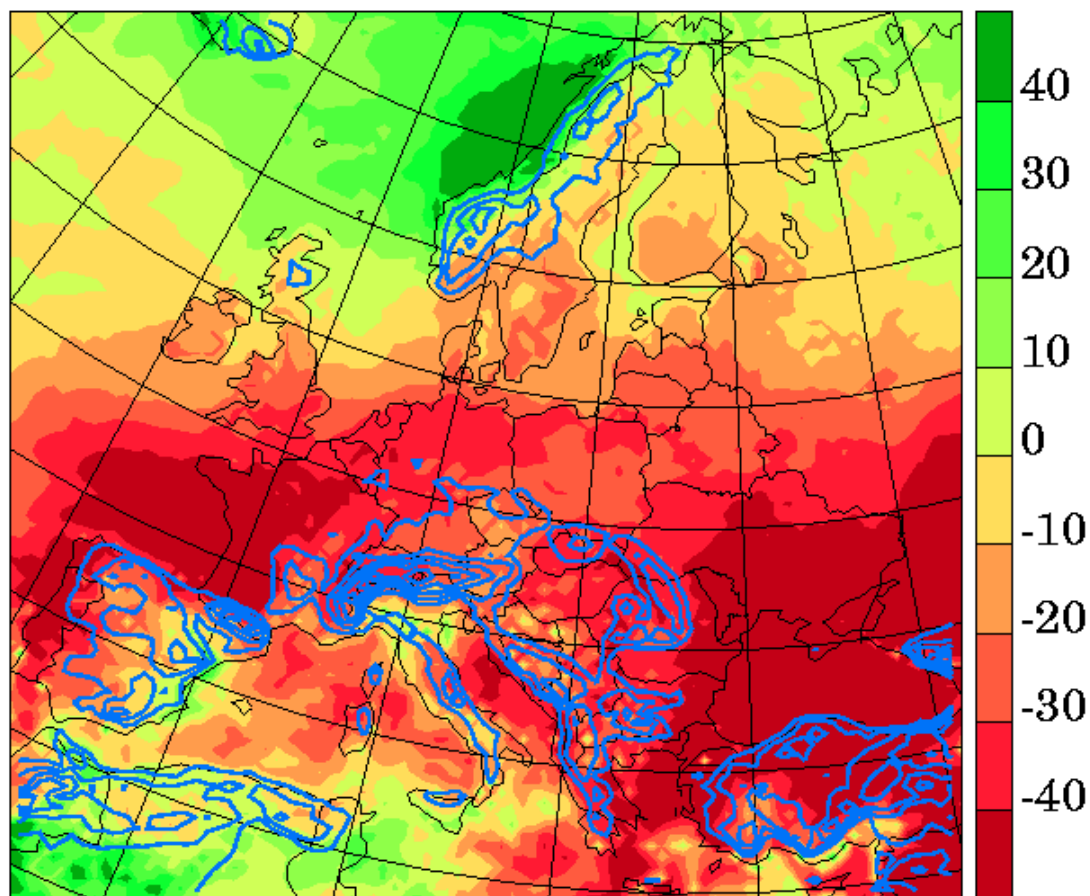
- Mere årsmiddelnedbør, betydelige årstidsvariationer



Kilde: DMI (2010)

Ændring i middelnedbør (%)

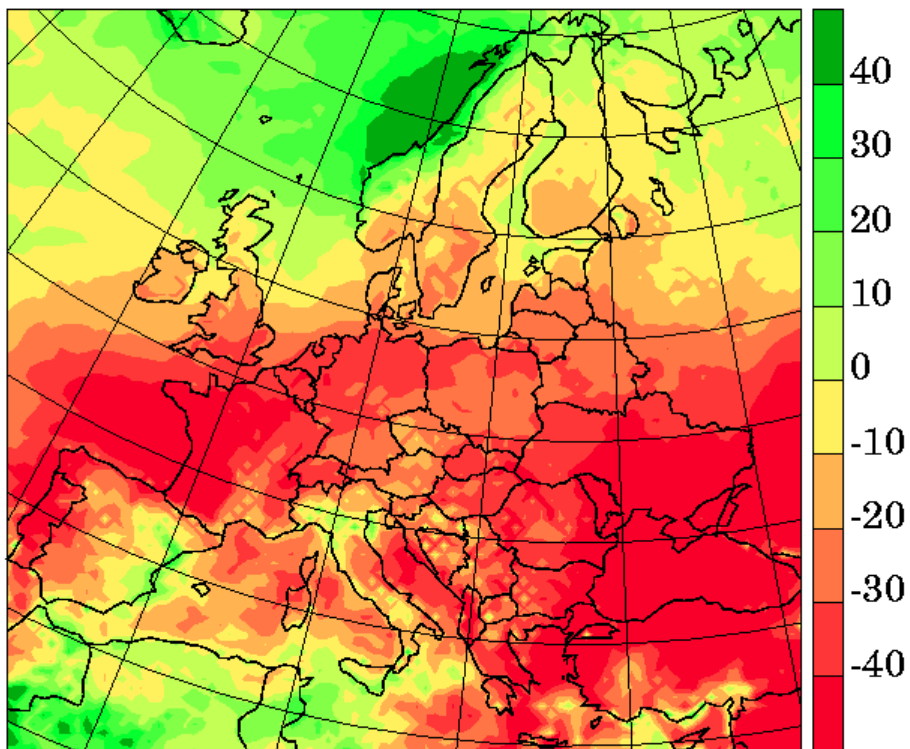
Sommer



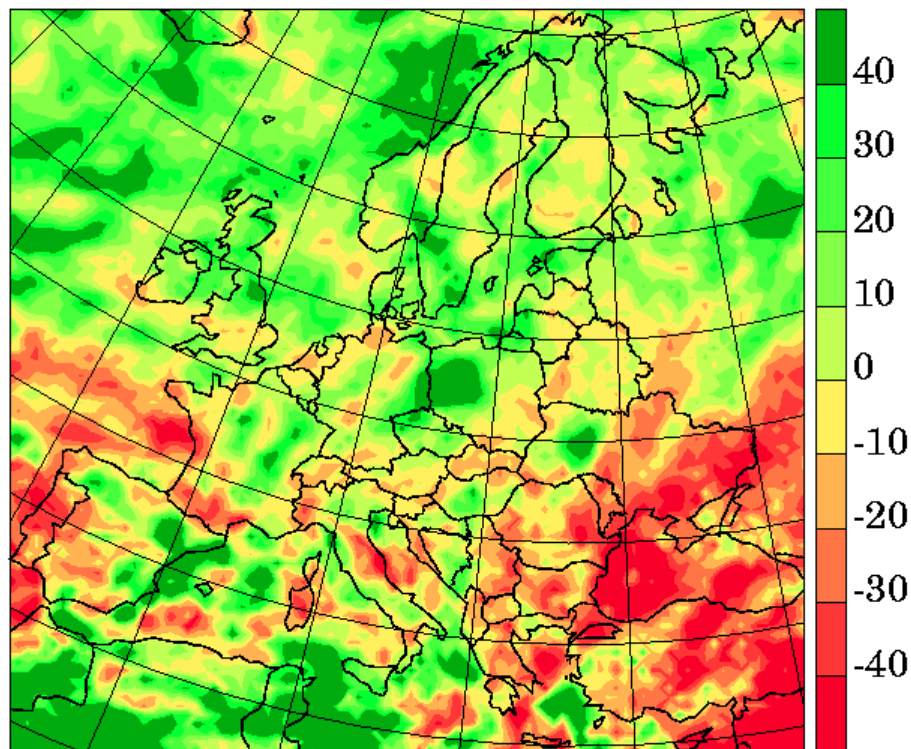


Ændringer i nedbør (%)

Middel



Vådeste dag



Husk på

- Klimaforandringerne vil tage til
- 2 grader bliver meget svært at nå
- Øget opvarmning
- Ændret sæsonalitet i nedbør
- Øget risiko for mere ekstrem nedbør
- Større risiko for tørke (vandmangel)
- Havspejlsstigninger af betydning mod slutningen af århundredet

Tusind tak for jeres opmærksomhed!

Spørgsmål: jhc@dmu.dk



THIRD NORDIC
INTERNATIONAL
CONFERENCE

CLIMATE CHANGE
ADAPTATION

ADAPTING TO CHANGE:
FROM RESEARCH TO DECISION-MAKING

COPENHAGEN DENMARK 25-27 AUGUST 2014



Danmarks Klimacenter, DMI

Center for Regionale Klimaforandringer
www.cres-centre.dk

