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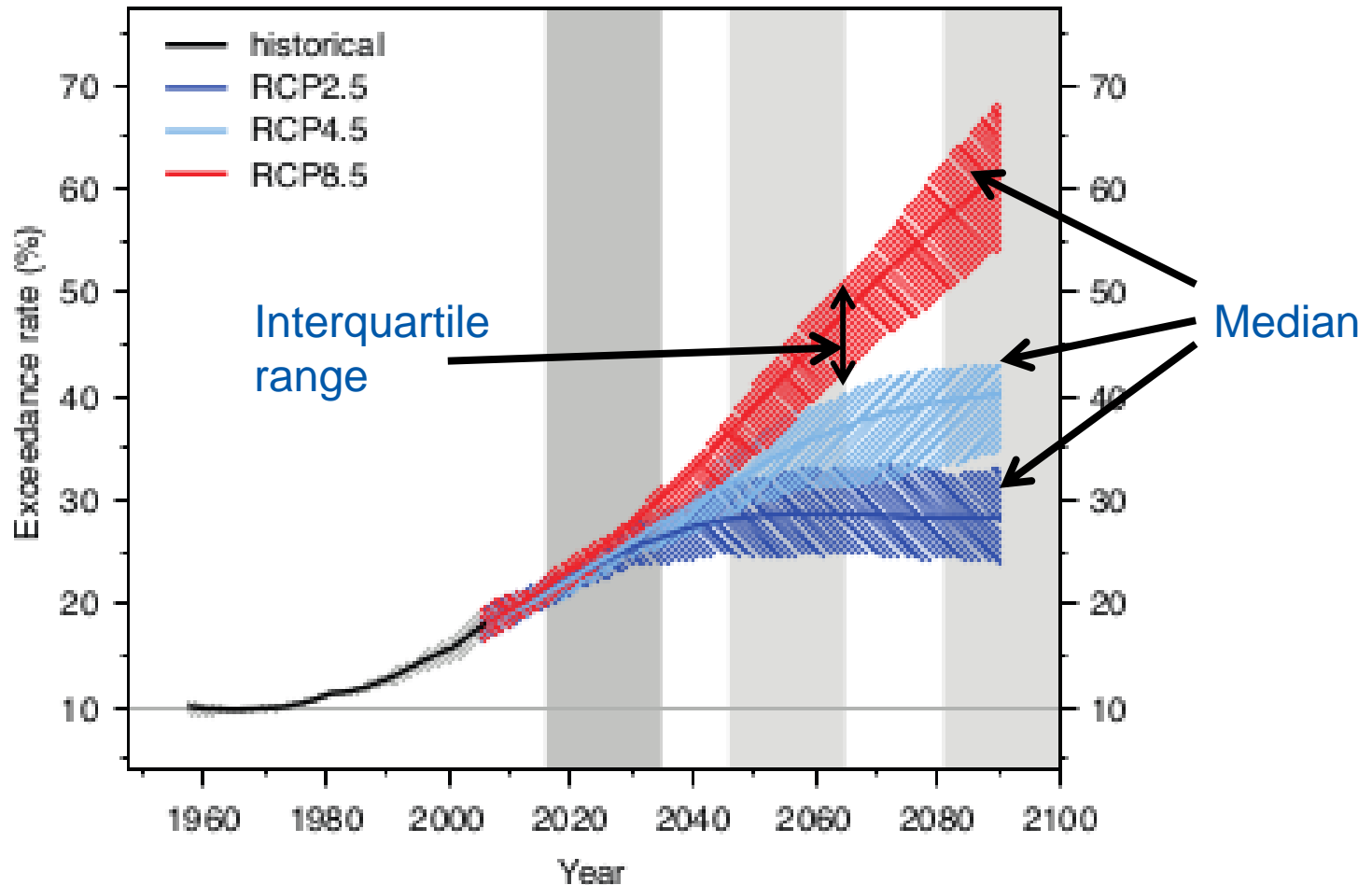
Preparados para el calor y para el frío extremos? / Are we ready for hot and cold extremes? (Part I)

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Hot extremes in the future

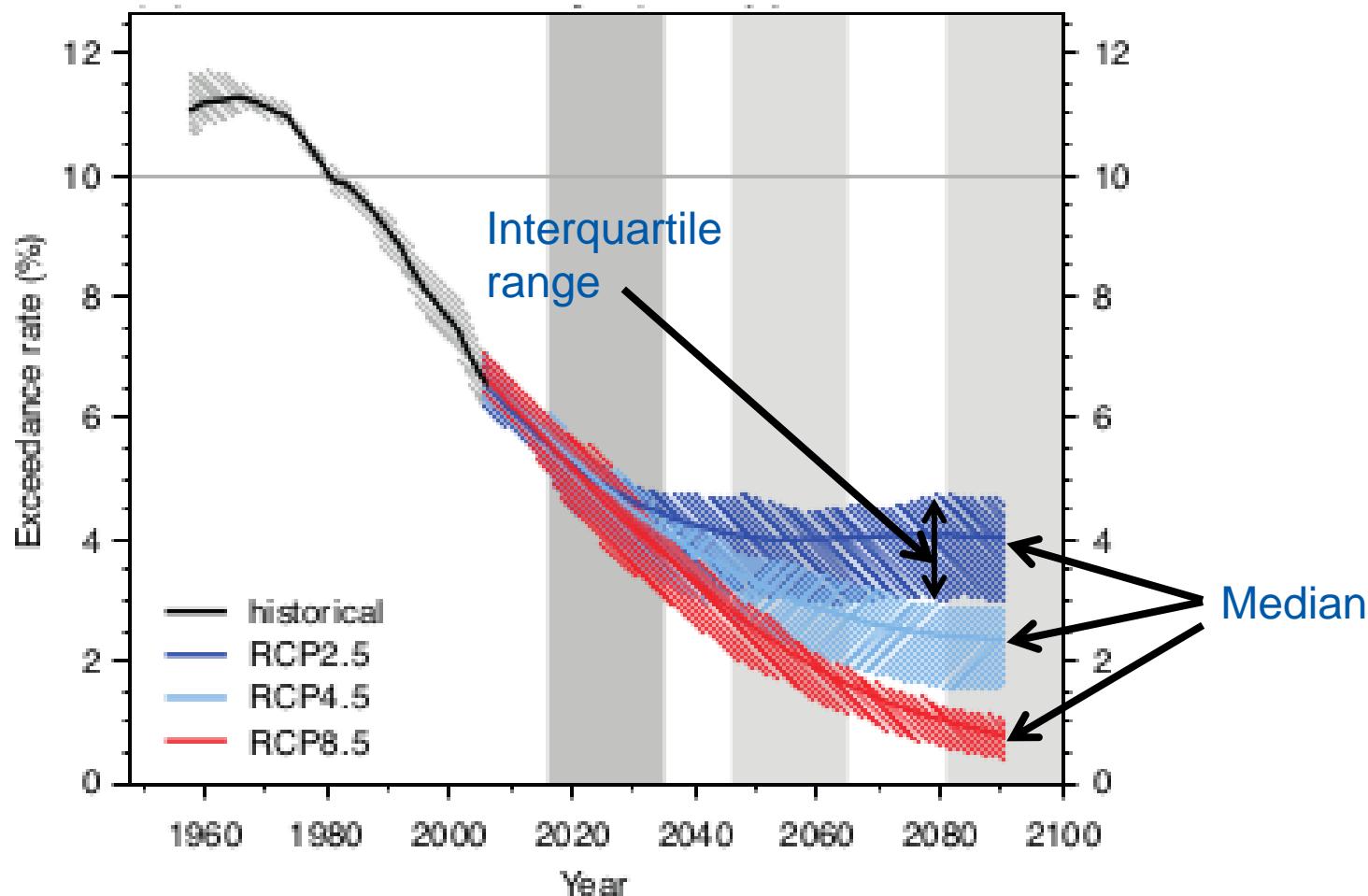
Warm days defined as the annual % of days when the maximum daily temperature (Tmax) exceeds Tmax of 90% of days over 1961-1990

Extracted from the 5th Assessment Report of the Intergovernmental expert Panel on Climate Change



Cold extremes in the future

Cold days defined as the annual % of days when the minimum daily temperature (Tmin) is below Tmin of 90% of days over 1961-1990



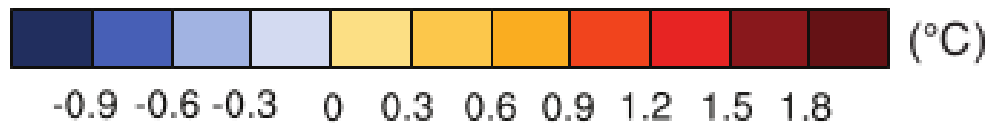
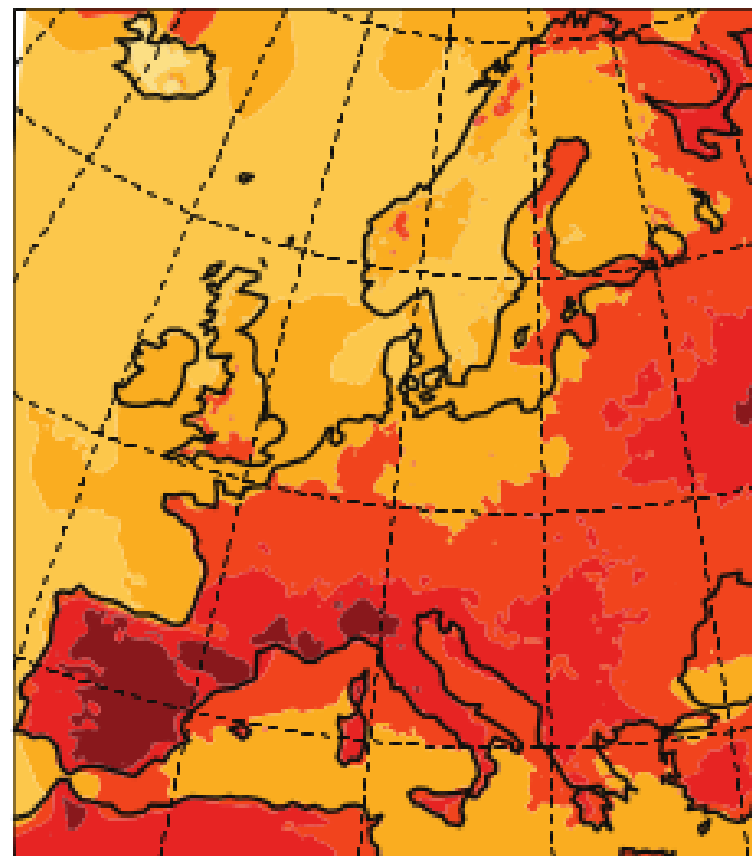
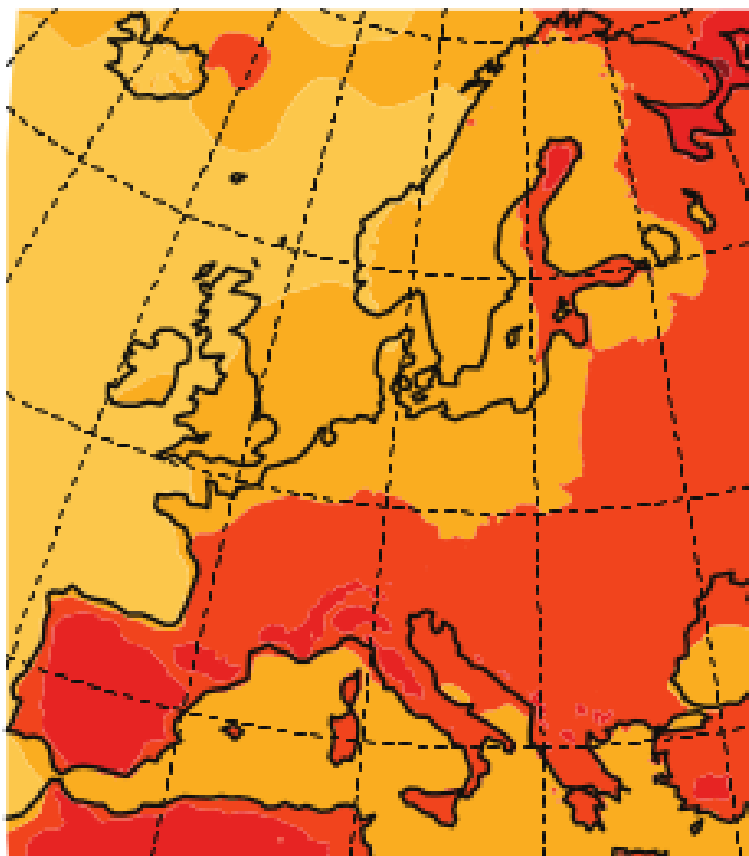
Extracted from the 5th Assessment Report of the Intergovernmental expert Panel on Climate Change

Hot summer extremes in the future

Changes in boreal summer (June to August) surface temperature for 2016-2035 relative to 1986-2005

a) Seasonal average

b) Threshold 90% of Tmax

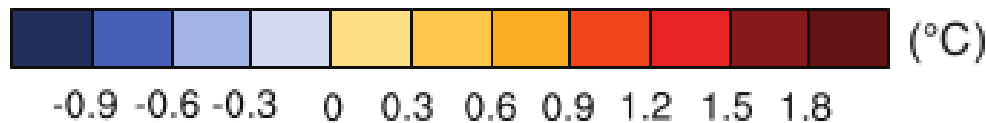
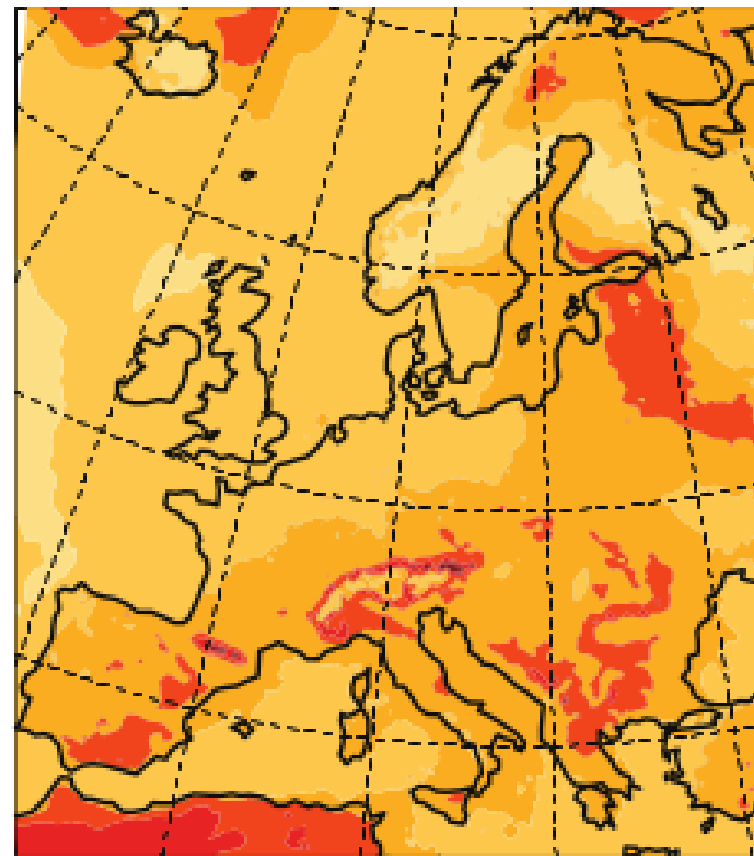
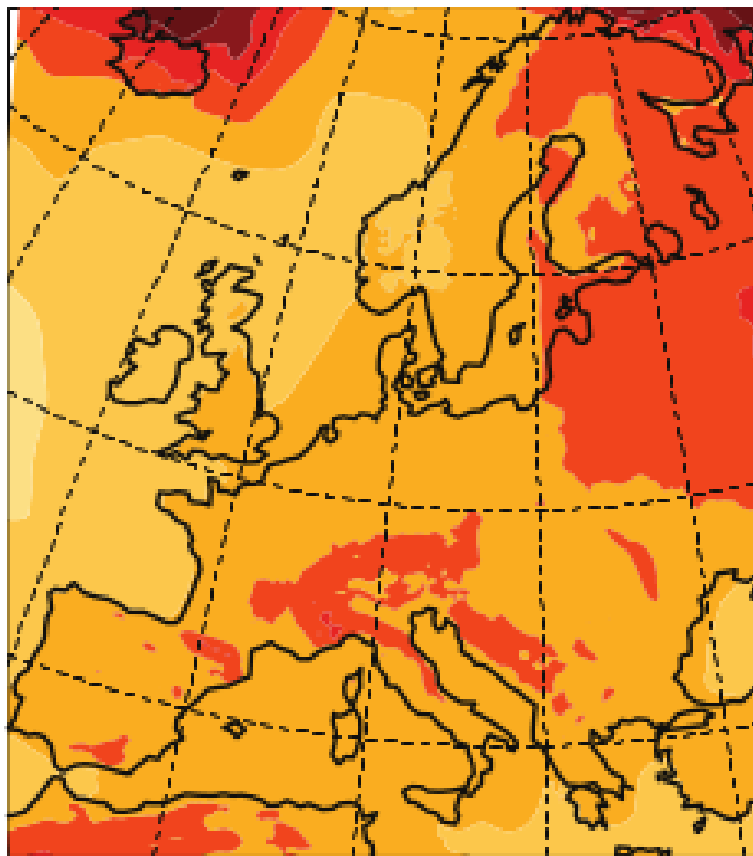


Hot winter extremes in the future

Changes in boreal winter (December to February) surface temperature for 2016-2035 relative to 1986-2005

a) Seasonal average

b) Threshold 90% of Tmax



Conclusions

Doubling of the frequency of hot extremes and decrease by about half of the frequency of cold extremes in the coming decade whichever emission pathway society follows

Increase by 25% to 70% of the frequency of hot extremes and decrease down to nearly 0% of the frequency of cold extremes by the end of the century

Largest increase in the temperature of hot summer extremes than in the summer mean temperature over Europe

Weakest increase in the temperature of hot winter extremes than in the winter mean temperature over Europe