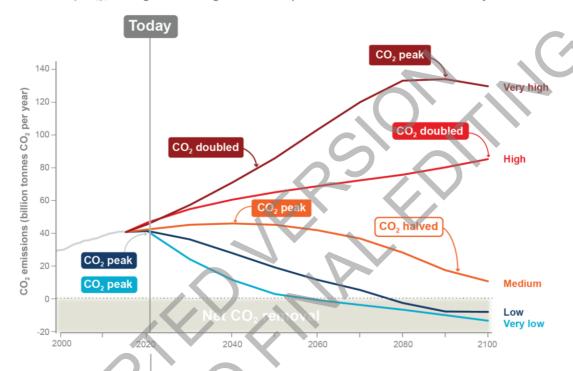
1 a)

## **Climate futures**

The climate change that people will experience this century and beyond depends on our greenhouse gases emissions, how much global warming this will cause and the response of the climate system to this warming.

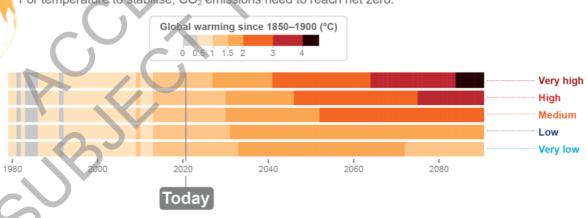
## **Emission pathways**

Different social and economic developments can lead to substantially different future emissions of carbon dioxide (CO<sub>2</sub>), other greenhouse gases and air pollutants for the rest of the century.



## Effect on surface temperature

For temperature to stabilise, CO<sub>2</sub> emissions need to reach net zero.



## **Short-term effect: Natural variability**

Over short timescales (typically a decade), natural variability can temporarily dampen or accentuate global warmir trends resulting from emissions.