



Scotland's centre of expertise connecting
climate change research and policy

The just transition is essential in our pathway to net zero

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ClimateXChange showcase: Evidence for a just transition. 15 November 2023



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Director of Science

ClimateXChange provides
independent expertise and research
to the Scottish Government for
climate policy



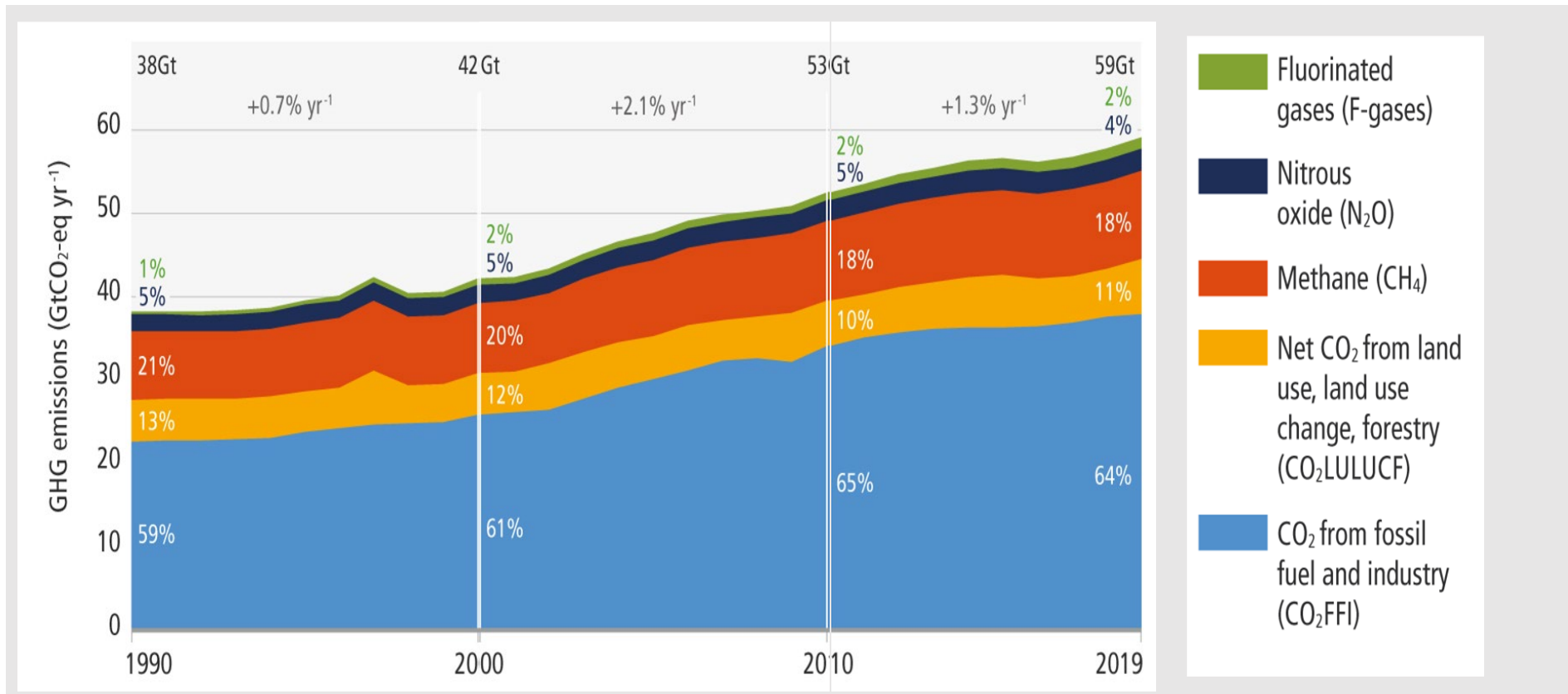
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Greenhouse gas emissions cause climate change

- We are not on track to limit warming to 1.5°C (the Paris Agreement target)
- Average annual greenhouse gas emissions during 2010–19 were the highest in human history..
- The biggest emissions are from burning fossil fuels

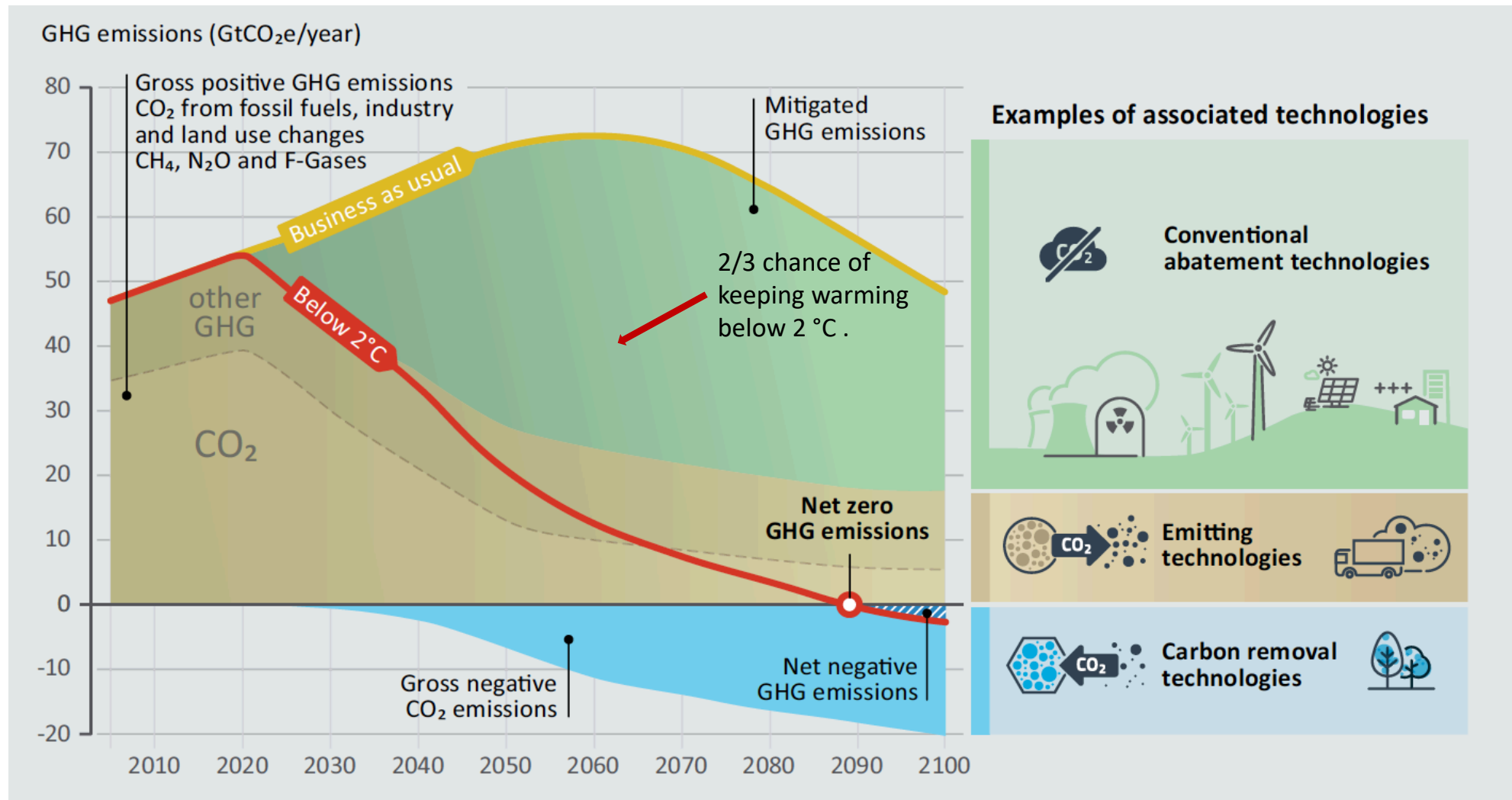


We know how to cut emissions

There are options available now in every sector that can at least halve emissions by 2030



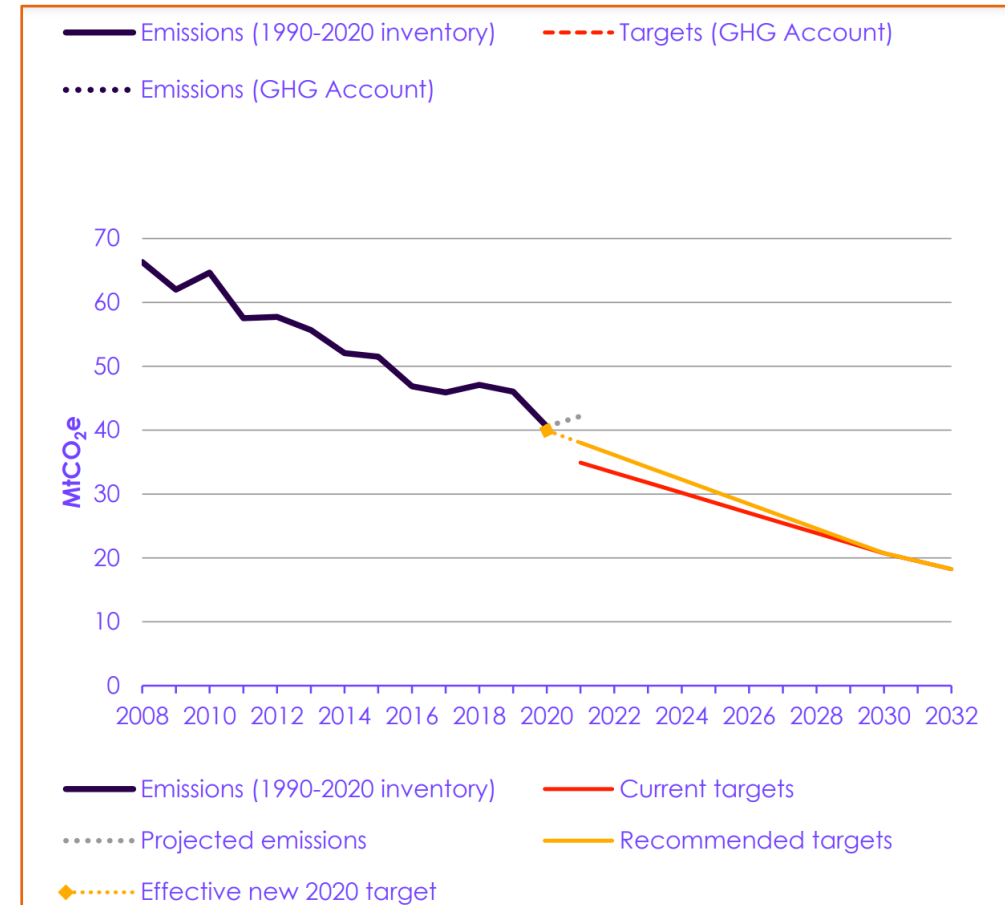
We need some “negative emissions” or “sinks” to balance remaining emissions



Scotland's transition to net zero by 2045

We need to keep the pace on cutting emissions

- Renewable energy has been important for Scotland to cut emissions
- Sectors that have not reduced emissions much include transport, industry, buildings, waste and agriculture
- We need to plant more trees and look after carbon sinks like peatland



Source: NAEI (2022) Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland, CCC analysis, Scottish Government; Scottish Government (2019) *Climate Change (Emissions Reduction Targets) (Scotland) Act 2019*; Scottish Government (2020) *Scottish Greenhouse Gas Statistics*; CCC analysis.

Notes: Projected in emissions in 2021 assume the same 4% increase seen in the UK.

- The Scottish Government has committed to cut greenhouse gas emissions to reach net zero in 2045.
- That means big changes to the way we make and use energy, how we get around, and how we grow food and make the things we need.

