



# Keeping the momentum of carbon capture and storage

19 November 2013

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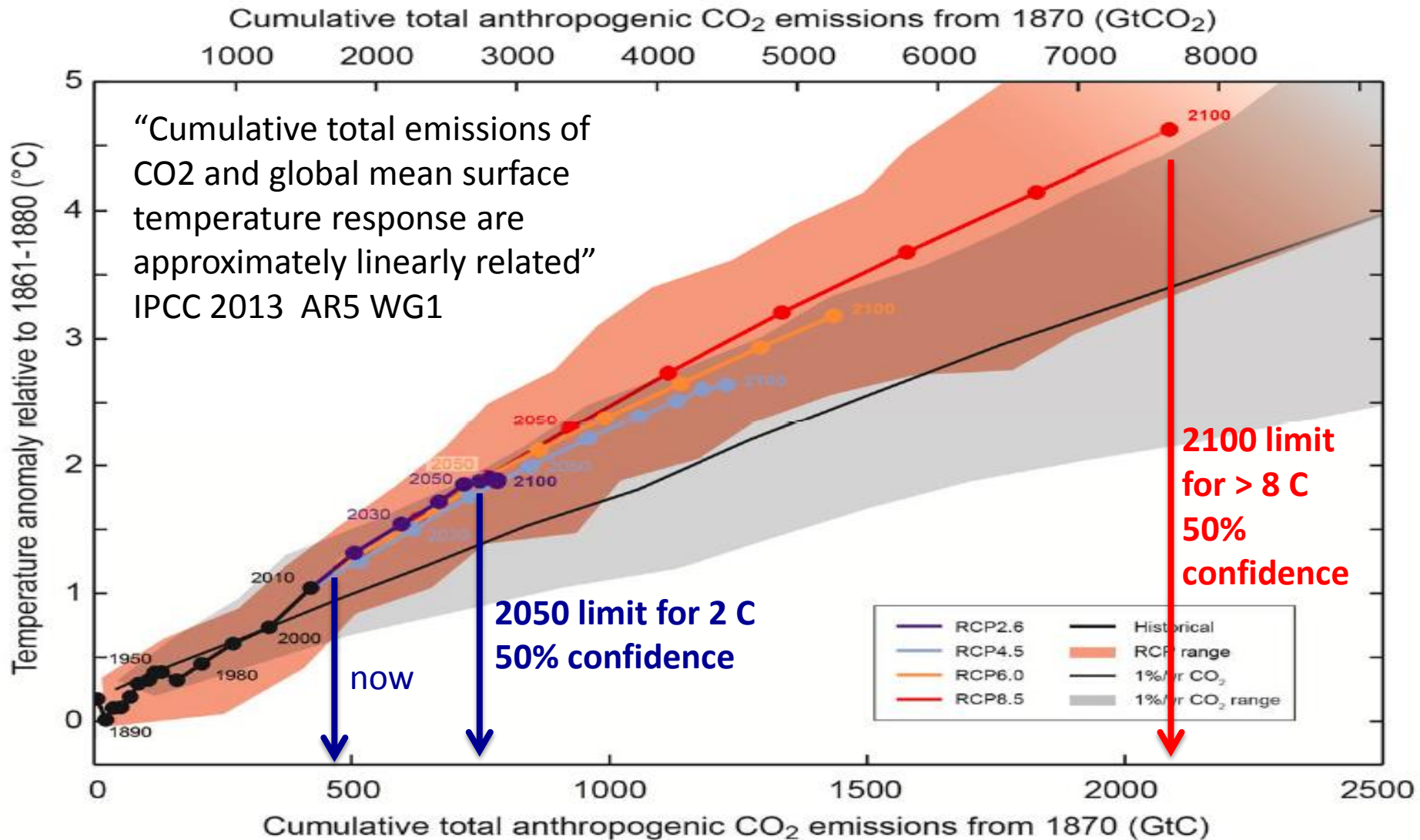


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# Too much fossil carbon : IPCC



**TOTAL emissions of fossil carbon have to be contained**  
**Not just the rate of emission : CCS buys time – but 20 yr late**

# The record of CCS : UK



Grangemouth	2002		BP	
Peterhead DF1	2005 – 07		BP - SSE	
Competition 1	2007 – 11	➡	FEED x 2	
Competition 2	2012 – 13	➡	FEED x 2	Cost reduction

**Rapid progress**

- ✓ Territorial claim of pore space
- ✓ Legal adoption of EC Directive
- ✓ Licensing, evaluate, operate close
- ✓ FEED support
- ✓ 1 Billion CAPEX prize (share of)

- ✓ Electricity Market CfD
- ✓ Research support
- ✓ Stakeholder communication
- ✓ International Partnership
- ✓ Knowledge Exchange

**First CO2 injected 2019 / 20** ✕  
**Pipeline of follow – on projects** ✕

**Slow progress**

# Europe CCS – ready to go... almost



- 12 projects planned
- EERP: 3 projects cancelled,  
3 immobile and in critical state
- NER: 1 project remaining

**GCCSI active projects**  
75 globally  
21 in EU

Politics→  
Confidence→  
Demand→  
Profit→

**Investors  
and  
Money**

Legal

Regulation

Technology

Science

- EU-ETS finance fail  
policy success
- Euro 1 Billion  
offered in EERP

**CCS in 2030 SET Plan**  
**But may be > 2020 re-start**



# Accelerate injection: industry low cost CO<sub>2</sub>



- Gas processing, ammonia production release > 7 Mt /yr high purity CO<sub>2</sub>
- Near North Sea 1-3 million tonnes CO<sub>2</sub>/year being released now

**ACTION**

**EC**

**NSBTF**

**Utilise CO<sub>2</sub> availability**

# Summary : how to go faster ?

CCS essential for Europe : climate, power, industry  
North Sea CO<sub>2</sub> storage helps 10-year acceleration

- Driving policies towards goals essential
- Need practical actions now to develop transport and storage.
- Use industrial emissions, shipping, pipes
- Components exist – need to be brought together and delivered – NSBTF, H-2020, Projects of Common Interest ?
- Finance methods : EU-ETS, CCS certificates, Emissions standards ...



Full report: [www.sccs.org.uk/unlocking-north-sea-report](http://www.sccs.org.uk/unlocking-north-sea-report)