

TCCS-10



Opening Speech 18 June 2019

Dr. Nils A. Røkke – Conference Chair
Executive Vice President Sustainability SINTEF

TCCS-10 - Safety Moment/Practicalities

- Emergency Exits marked with green exit signs
- No fire alarm tests are planned for today

- Read programme !- Practicalities are listed there
 - Transport arrangements & lunches
 - Internet access
 - Social Programme

- Download the App

- Blogs and twitter! - #TCCS and @NCCS_FME



TCCS-10: Technical Programme

Programme

- 115 oral presentations including 9 keynotes/plenaries, in 5 parallel sessions
- Award winning lecture – winner to be announced during tonight's' dinner
- Poster session with more than 100 contributions
- Proceedings will be available at the web site – same procedure as for the TCCS-9 and preceding TCCS's

TCCS focus is CCS science- the scientific basis and frontier research within CCS- this is the TCCS mission- the global CCS science conference

Committees



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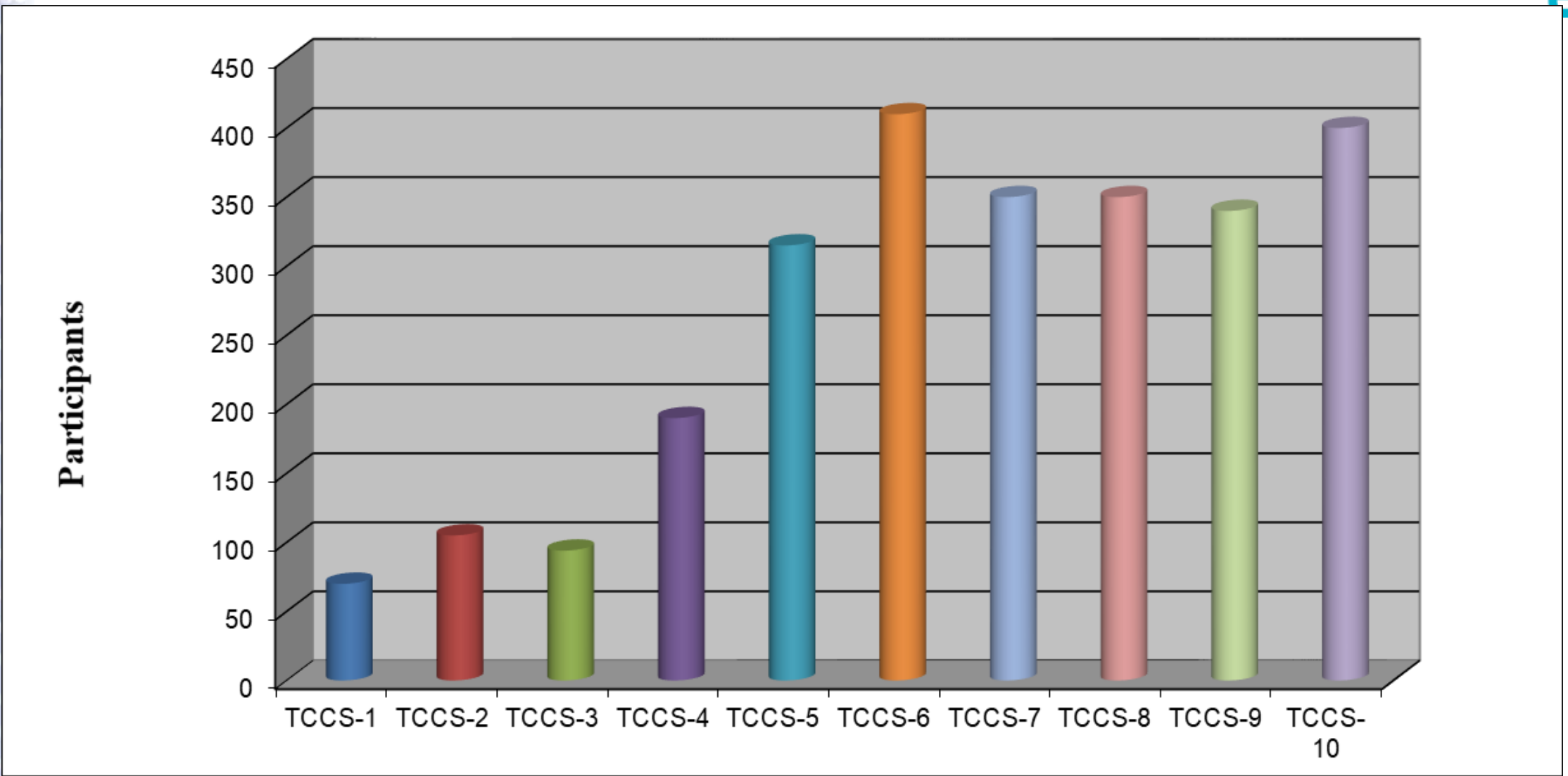
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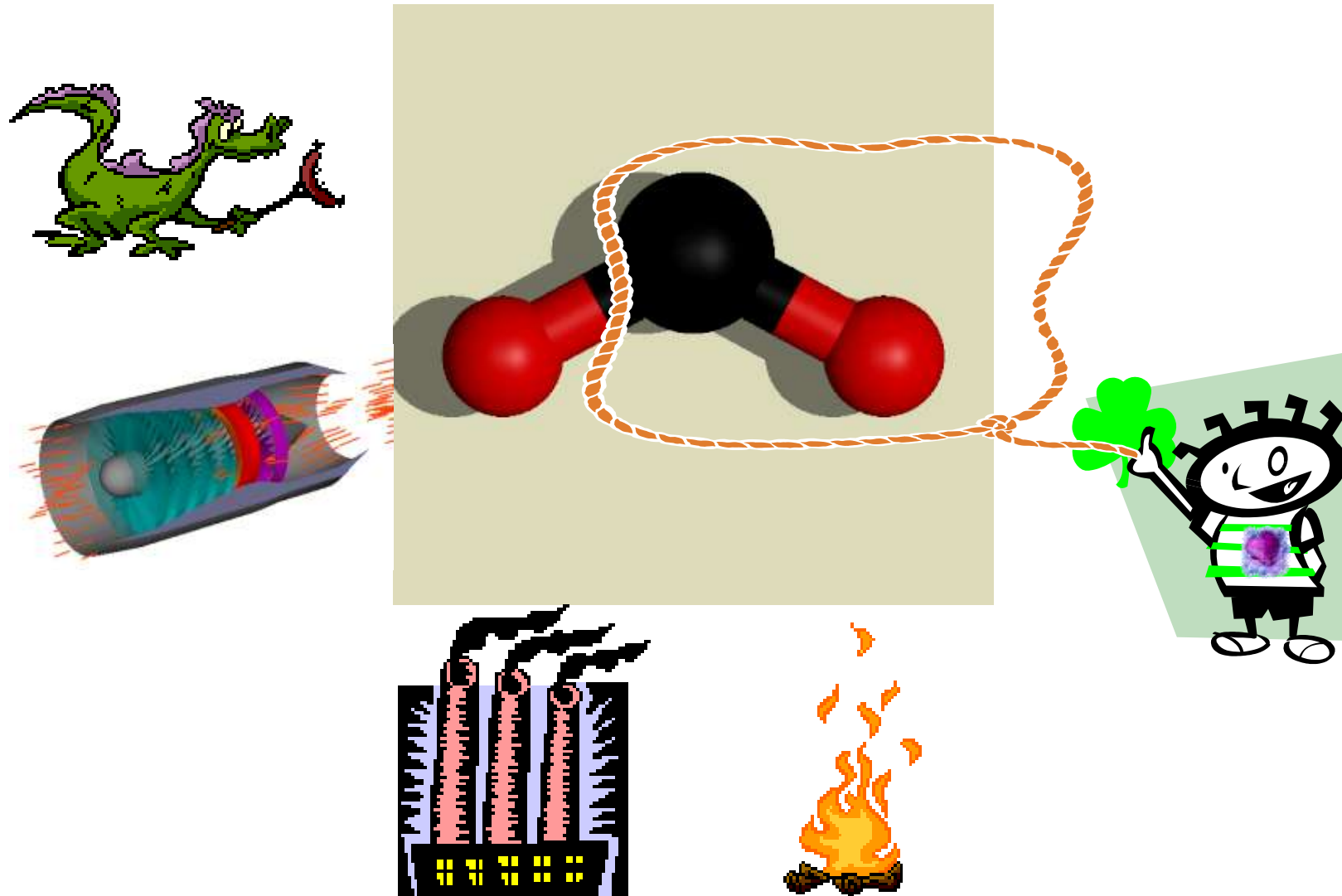




History of TCCS

#1 - 2003 Gas power generation with CCS, Kyoto, Nordic focus & Klimatek, 7yrs after Sleipner

TCCS#1 - Power production with CO₂ capture



History of TCCS

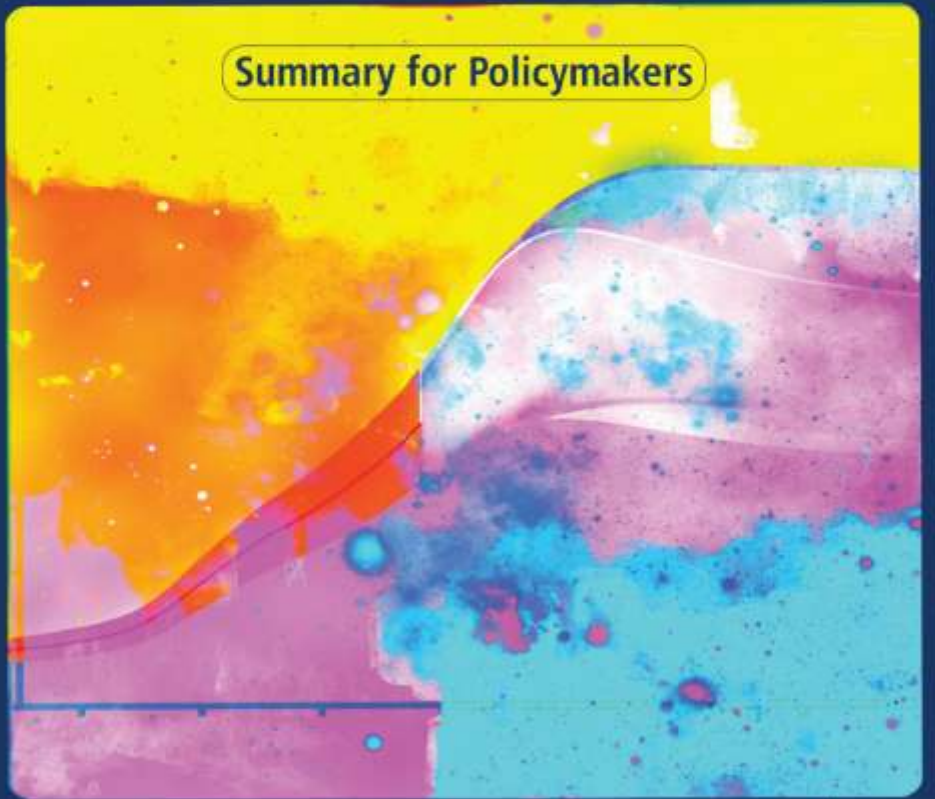
- #1 - 2003 Gas power generation with CCS, Kyoto, Nordic focus & Klimatek, 7yrs after Sleipner
- #2 - 2004 Business models, low cost solutions, CSLF- EU, 17% of power gen with CCS by 2030
- #3 - 2005 IPCC report on CCS, NO/US bilateral on CCS, from pollution to solution
- #4 - 2007 Projects: SOLVit, DECARBit, NCCSL->ECCSEL, Don't give up, CCS – it's time has come
- #5 - 2009 Build plants!, int. co-operation, acceptance- talk about CCS
- #6 - 2011 All time high- 425 participants, CCS award, plants to be inaugurated 2014
- #7 - 2013 BIGCCS Centre, Carbon bubble- risk, unburnable carbon, industrial CCS and BioCCS, TCM in operation
- #8 - 2015 No CCS- No 2 deg solution, carbon budget, awaiting Paris, Boundary Dam operative
- #9 - 2017 H2 from natural gas with CCS, new enthusiasm, maths-> CCS is needed and in various sectors
- #10 - 2019 Europe- all about industry and hard to abate sectors, climate positive solutions, what about 1.5 degree, 100% or more capture and hydrogen as enabler



Global Warming of 1.5°C

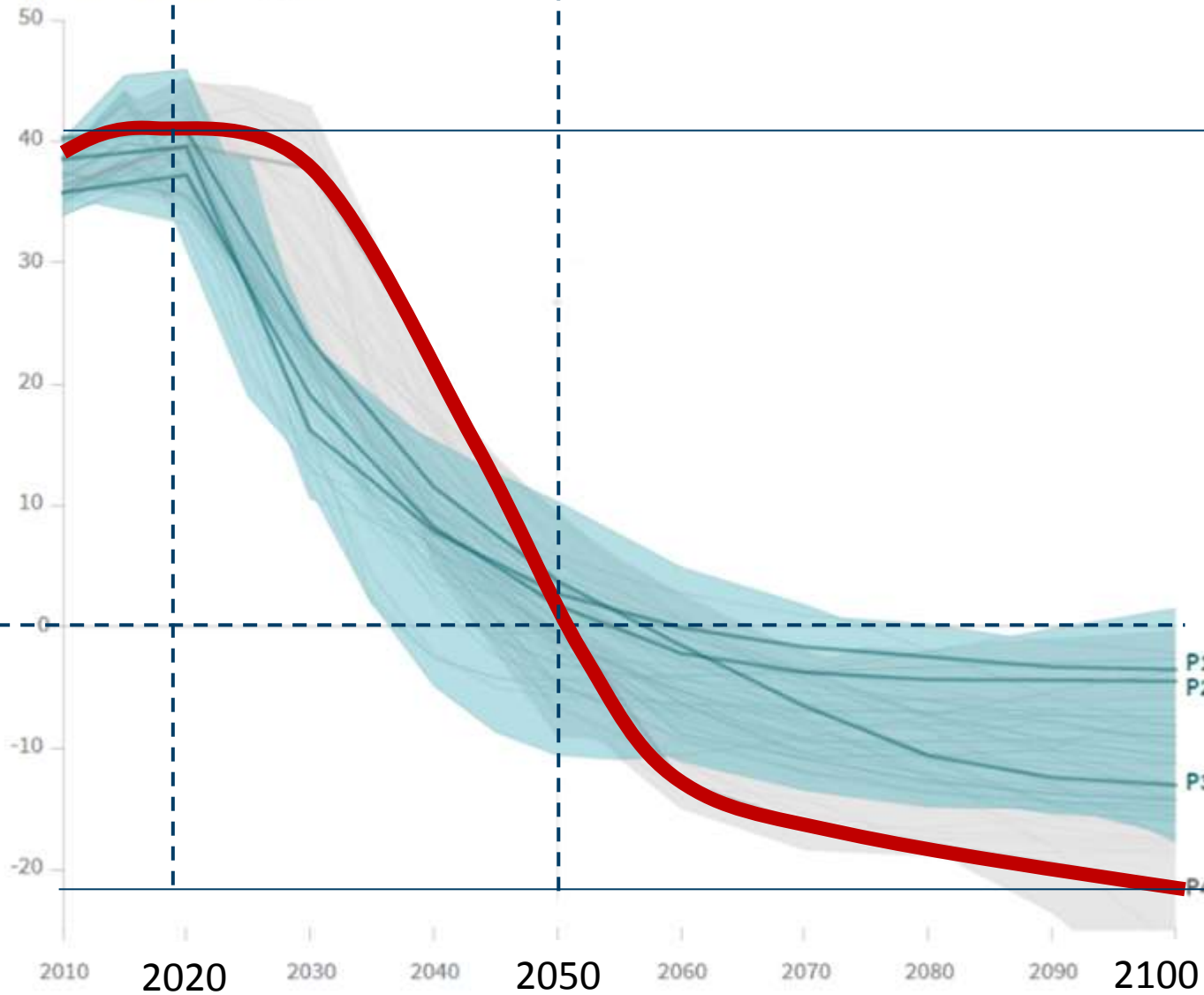
An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

Summary for Policymakers



Global total net CO₂ emissions

Billion tonnes of CO₂/yr



Reduce emissions

Remove CO₂ from atmosphere

Net zero CO₂ emissions

Source: IPCC (2018)

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NORWEGIAN CCS RESEARCH CENTRE
Industry-driven innovation for fast-track CCS deployment

Thank You!