GLOBAL STATUS OF CCS PROJECTS: 2015

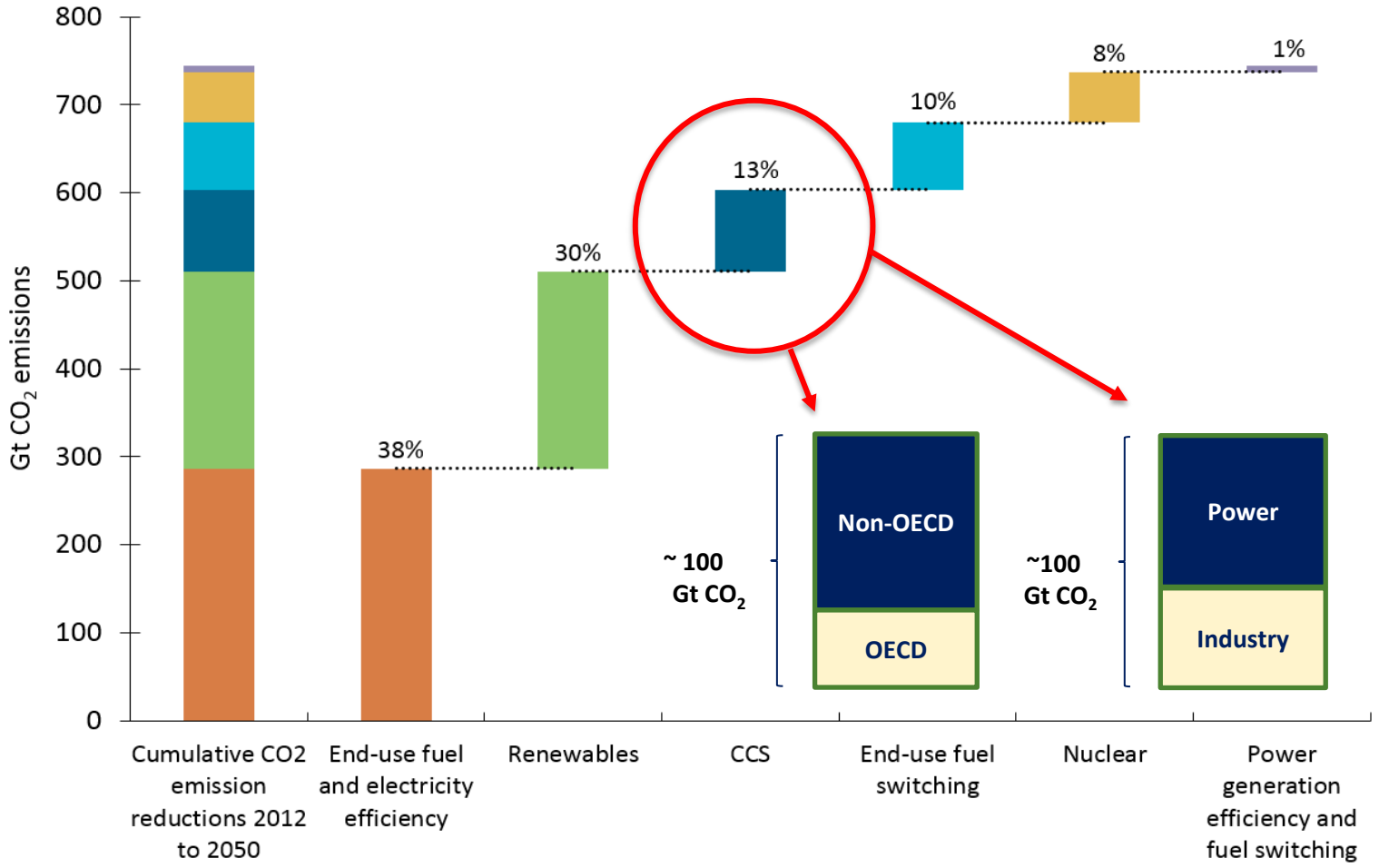
COP21: CCS - a proven and safe technology vital for completing the climate change mitigation portfolio

Benjamin Court - Global CCS Institute

2nd December 2015

CCS is critical in a portfolio of low-carbon technologies

CCS contributes 13% of cumulative reductions required through 2050 in a 2DS world compared to 'business as usual'



Source: *IEA, Energy Technology Perspectives (2015).*

Chorus of voices and reports supporting CCS

"…we need more investment in carbon capture and storage. As Working Group III of the Fifth Assessment pointed out, it will be very difficult to reach zero carbon emissions without it."

Hoesung Lee, Chairman of the Intergovernmental Panel on Climate Change (2015)

"Many models could not achieve atmospheric concentration levels of about 450ppm CO_2eq by 2100 if additional mitigation is considerably delayed or under limited availability of key technologies, such as bioenergy, CCS and their combination (BECCS)."

Summary report of the IPCC's Fifth Assessment Report (2014)

"…CCS is expected to play a crucial role in achieving emissions reduction targets at lowest cost."

***Bridging the gap: improving the economic and policy framework for carbon capture and storage in the EU*, Grantham Research Institute (2015)**

Importance of CCS acknowledged

"In industry, there are currently no alternatives to reach the same level of emissions reductions, as maximum fuel switching and energy efficiency measures would only achieve a fraction of the CCS reductions."

***World Energy Outlook Special Report on energy and climate change*, International Energy Agency (2015)**

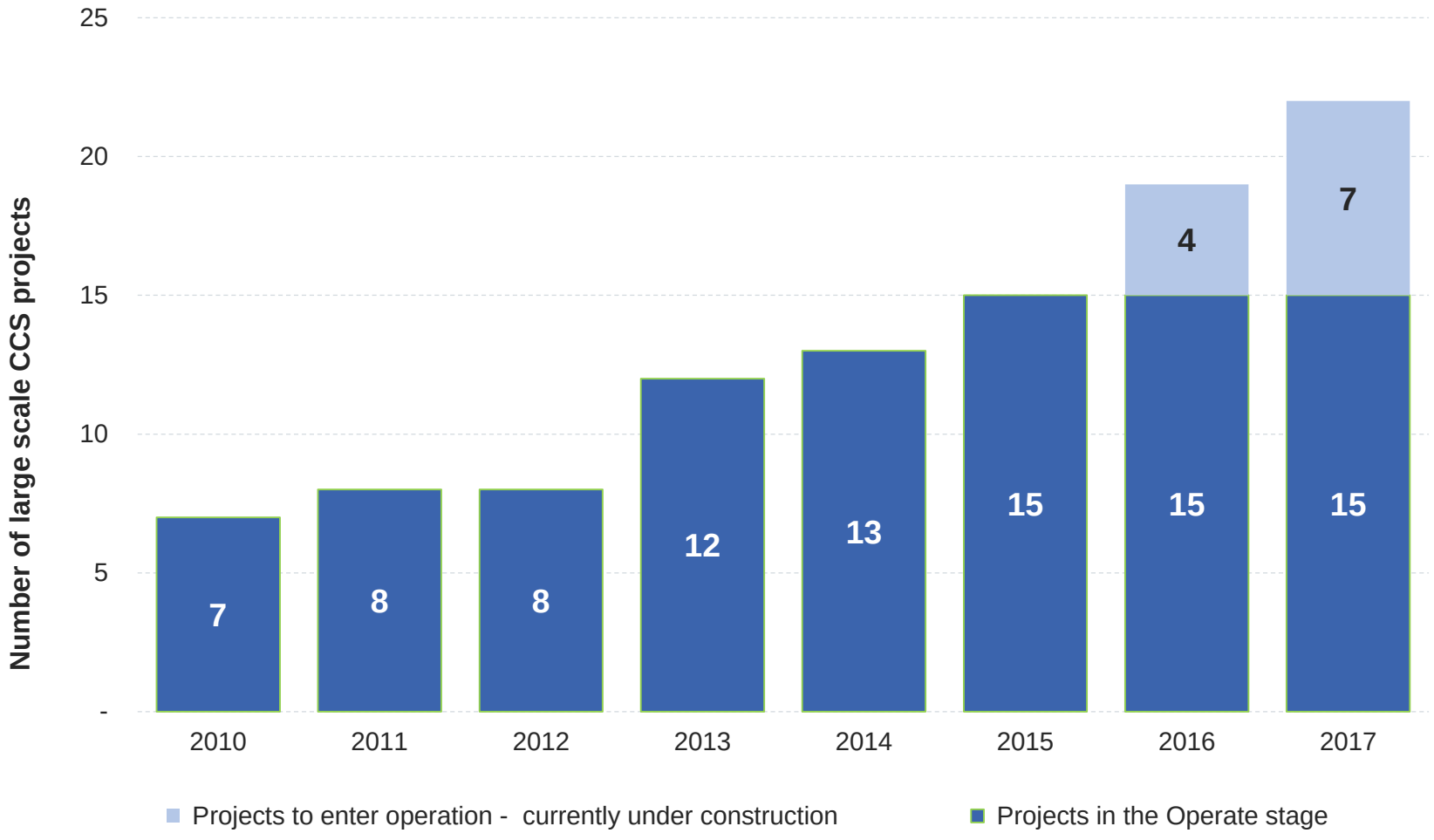
"CCS is very important for reducing emissions across the economy and could almost halve the cost of meeting the 2050 target in the Climate Change Act"

***Power sector scenarios for the fifth carbon budget*, Committee on Climate Change (UK) (2015)**

"…we encourage countries which opt to make use of carbon capture, use and storage to collaborate on large-scale demonstration projects…"

G7 Energy Ministerial Communiqué (2015)

Large-scale integrated CCS projects in operation have doubled since 2010



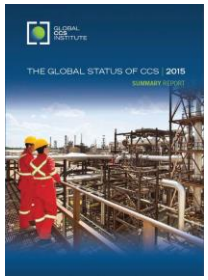
15 large-scale projects are operational

Source: *Large Scale CCS Projects* database, Global CCS Institute (2015)

7 large-scale projects expected to become operational by 2017

Source: *Global Status of CCS: 2015,* Global CCS Institute (2015)

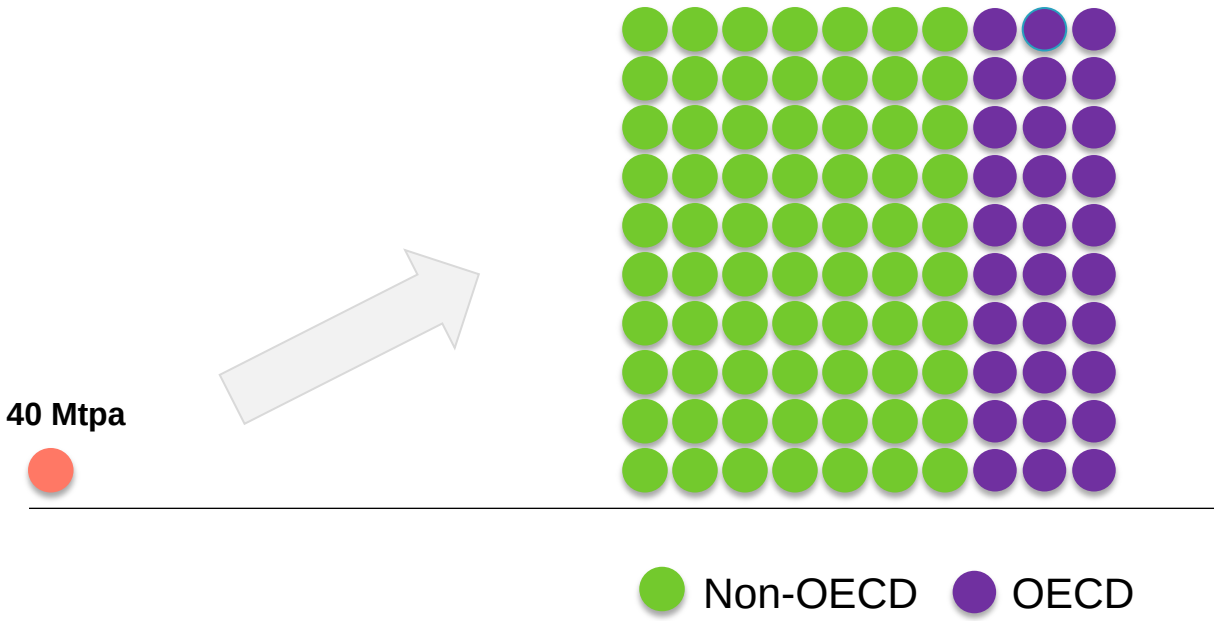
A significant task within one generation



Global Status of CCS: 2015

4,000 Mtpa of CO_2 captured by CCS by 2040
(IEA 450 Scenario)**

22 large-scale CCS projects in operation or construction have a combined capture capacity of **40 Mtpa**



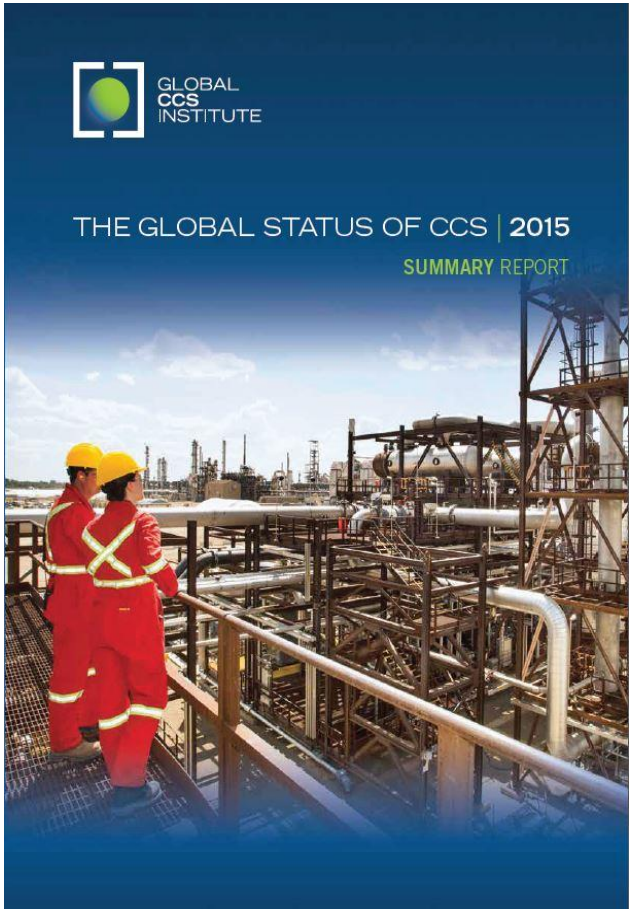
**Mtpa = million tonnes per annum*

***Source*: *IEA, Energy Technology Perspectives (2015).*

Global CCS status – a recap to guide future action

- CCS is indispensable in a least-cost approach to global decarbonisation
- The task is enormous & CCS deployment is urgent
- Deployment is not a technology challenge
- Policies that encourage investments are required

The Global Status of CCS: 2015



The Institute's key publication

Summary Report, Key Findings and other advocacy materials can be found at:

www.globalccsinstitute.com

Full report is available online at the Institute's Members Portal.

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