



[www.iea.org](http://www.iea.org)

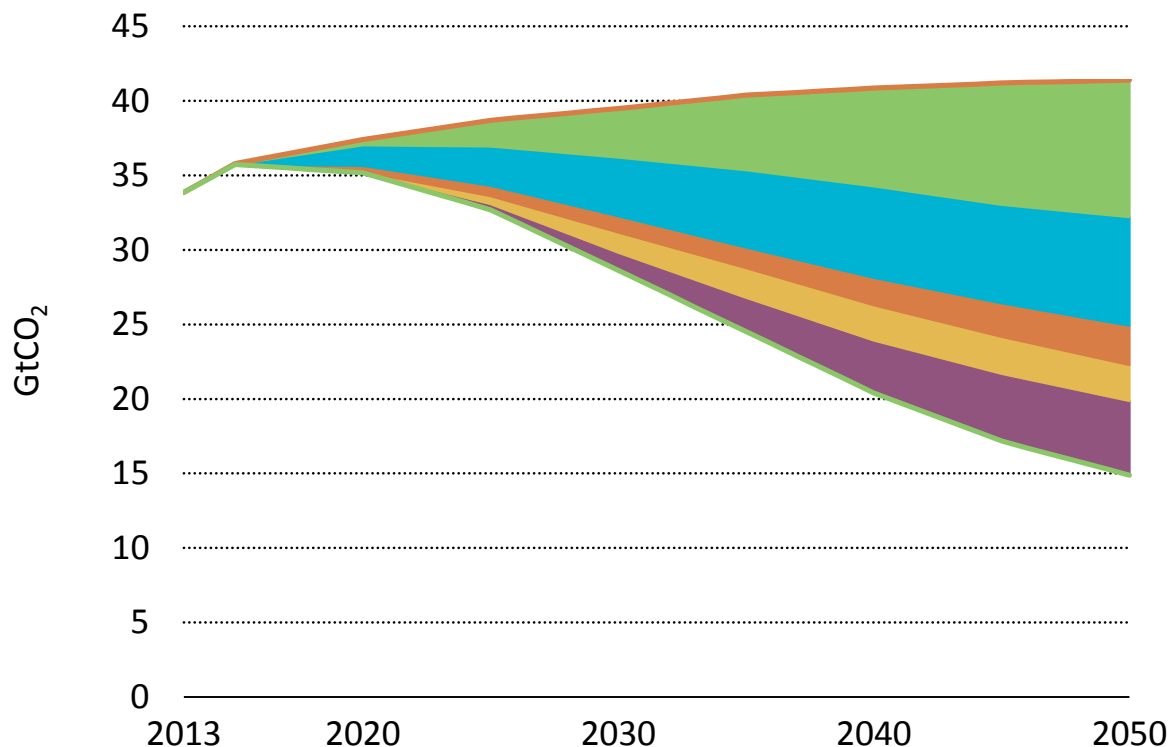
# Energy Technology Perspectives: Enabling a Sustainable Energy Transition

*EBRD side-event: Material Impact of Low Carbon Pathways,  
Deep Decarbonisation Technologies and Policy Dialogue*

*Jean-Francois Gagné  
Energy Technology Policy Division  
International Energy Agency*

# Sizing the scale of the challenge... ... and its solutions

Contribution of technology area to global cumulative CO<sub>2</sub> reductions



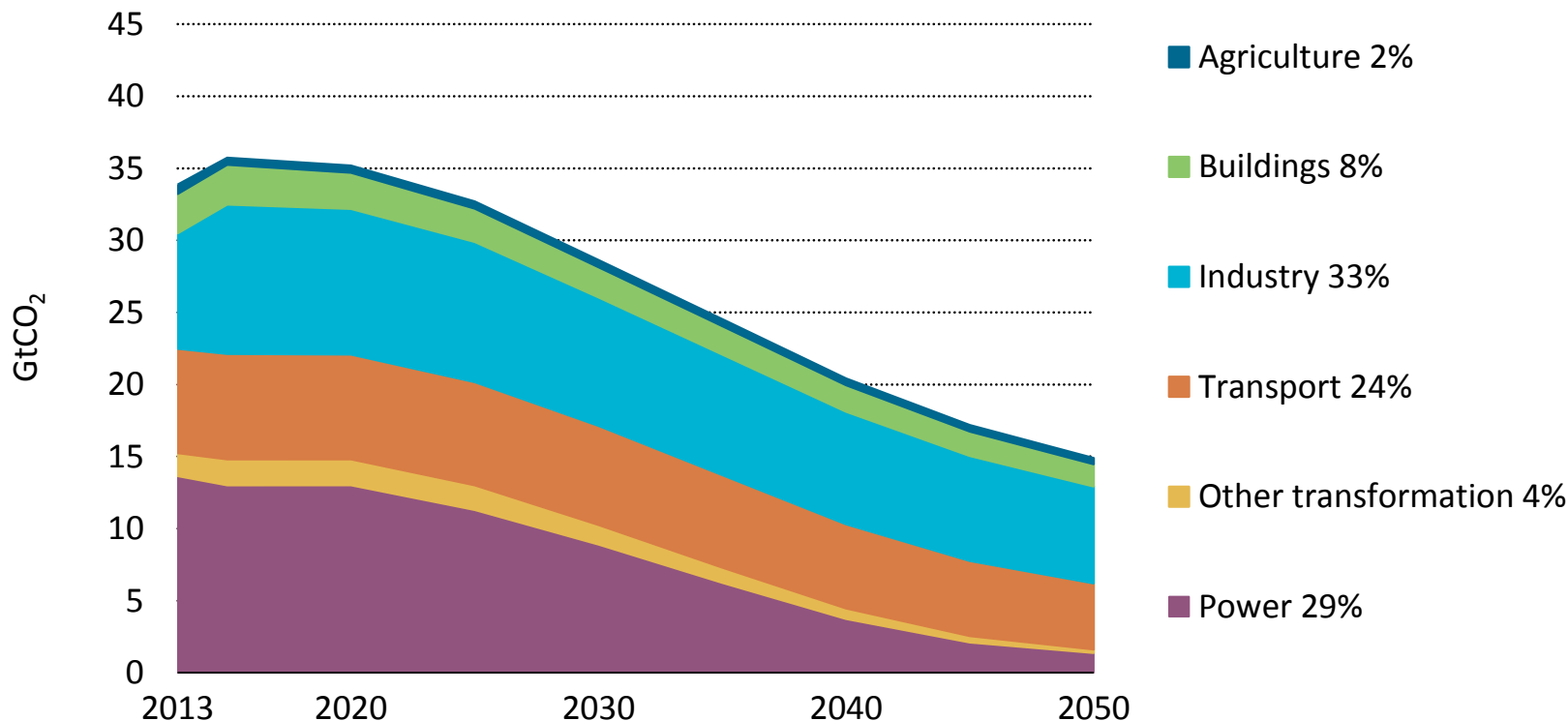
*The carbon intensity of the global economy can be cut by two-thirds through a diversified energy technology mix*

ETP  
2016

© OECD/IEA, 2016

# But the challenge increases to get from 2 degrees to “well below” 2 degrees

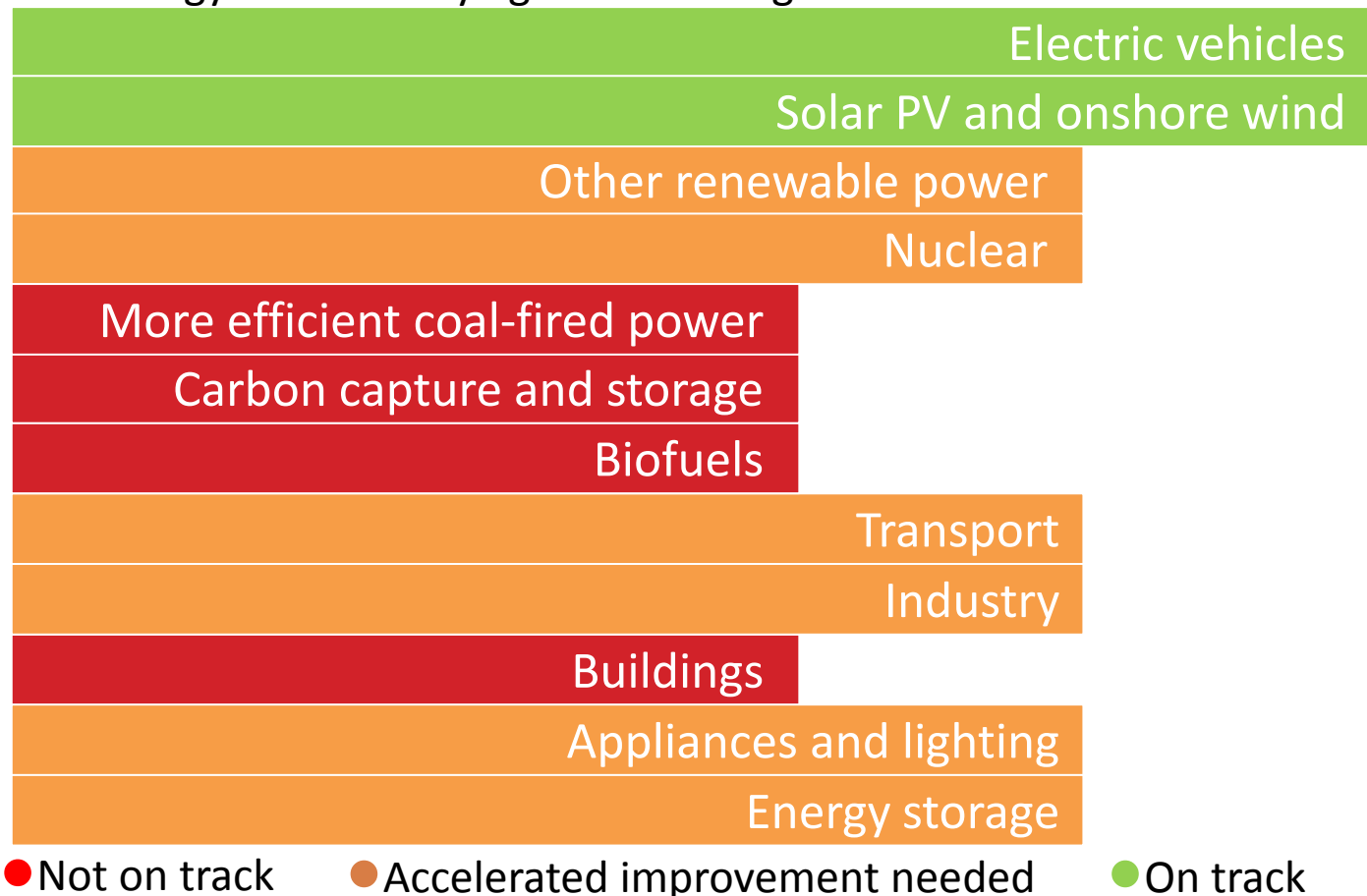
Energy- and process-related CO<sub>2</sub> emissions by sector in the 2DS



*Industry and transport account for 75% of the remaining emissions in the 2DS in 2050.*

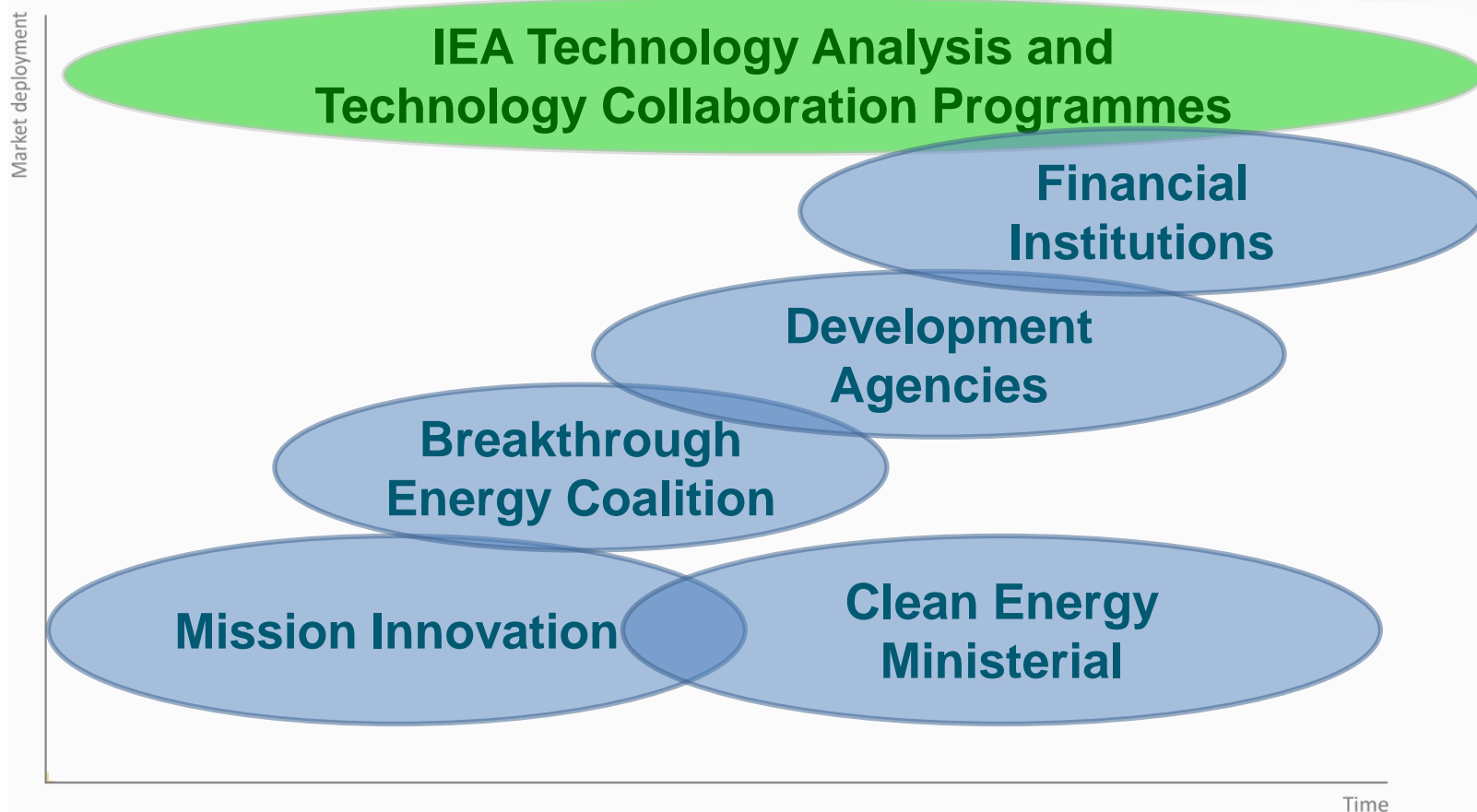
# Tracking Clean Energy Progress

Technology Status today against 2DS targets



*Clean energy deployment falls short of the 2DS opportunity* **ETP**  
*but recent progress in certain technologies is promising* **2016**

# Supporting Energy Innovation: The right policy at the right time



*The right support depends on the maturity of the technology and the degree of market uptake*

**ETP  
2015**

# Technology Roadmapping: Bringing stakeholders together



- Goal to achieve
- Milestones to be met
- Gaps to be filled
- Actions to overcome gaps and barriers
- What and when things need to be achieved



- 32 global publications, 21 different technology areas
- Re-endorsed at G7 Energy Ministerial Meeting in May 2016 (Kitakyushu)
- New Cycle for Implementation:
  - Near-term actions
  - Regional Relevance
  - Key partnerships (e.g. Finance)
  - Metrics and Tracking



Low-Carbon Technology Roadmaps

# Technology Collaboration Programmes

■ The IEA is the only energy organisation with 40 years experience of international technology collaboration

- Cross-cutting activities
- End use and energy efficiency
- Renewable energy and hydrogen
- Fossil fuels
- Fusion power



**The IEA works around the world to support an accelerated clean energy transition that is**

**enabled by real-world SOLUTIONS**

**supported by ANALYSIS**

**and built on DATA**