



International  
Energy Agency

# Energy Efficiency: Towards our 2020 Climate Goals

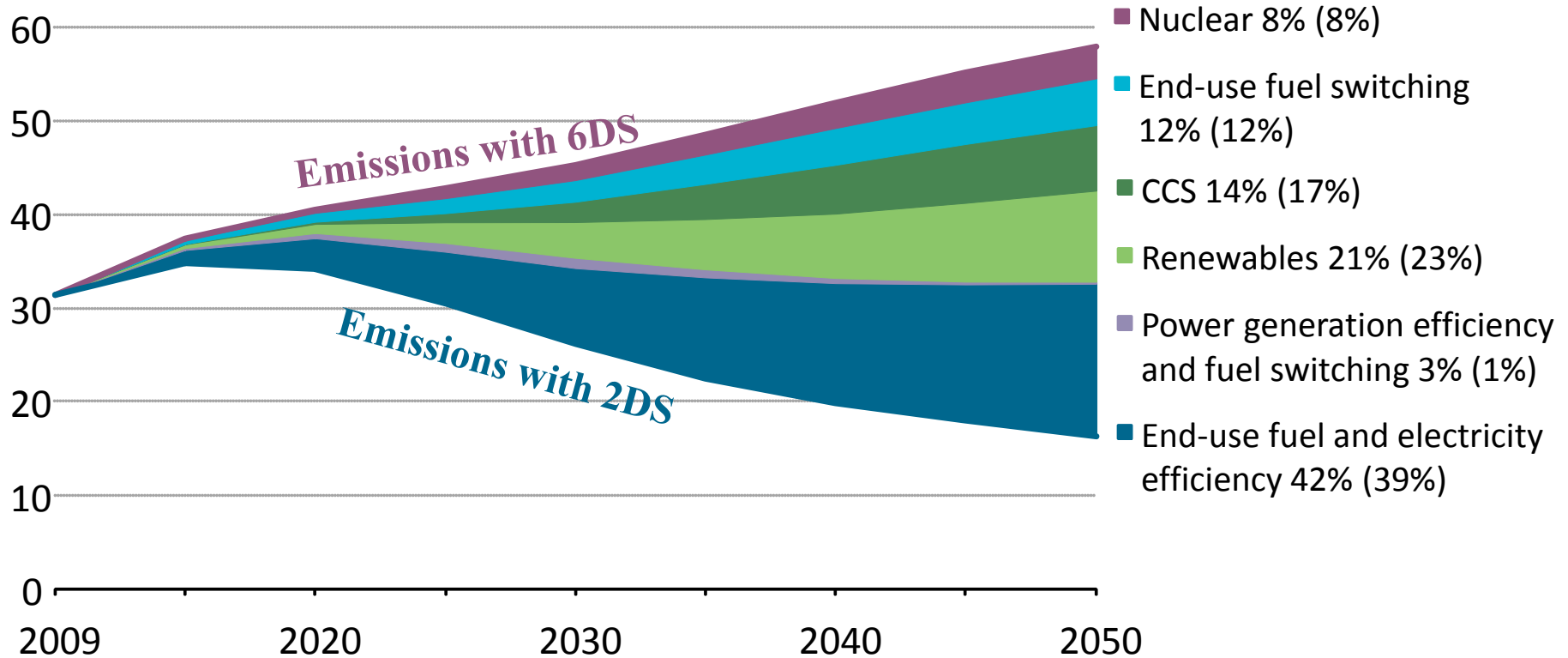
**Philippe Benoit**  
Head of Energy Efficiency & Environment (Climate) Division, IEA

**IEA Side Event**  
**Warsaw 19 November 2013**



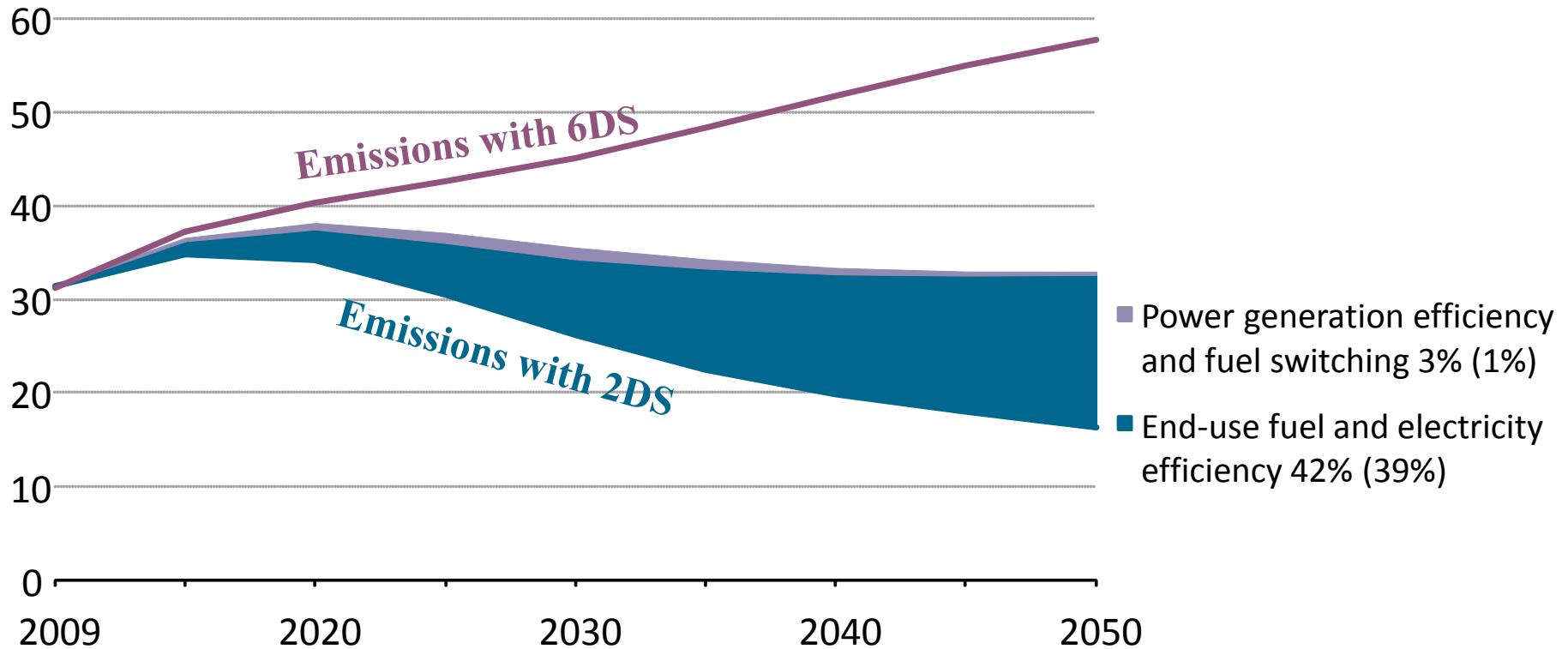
# Portfolio of decarbonising measures

## Emissions Reductions (Gt CO<sub>2</sub>)



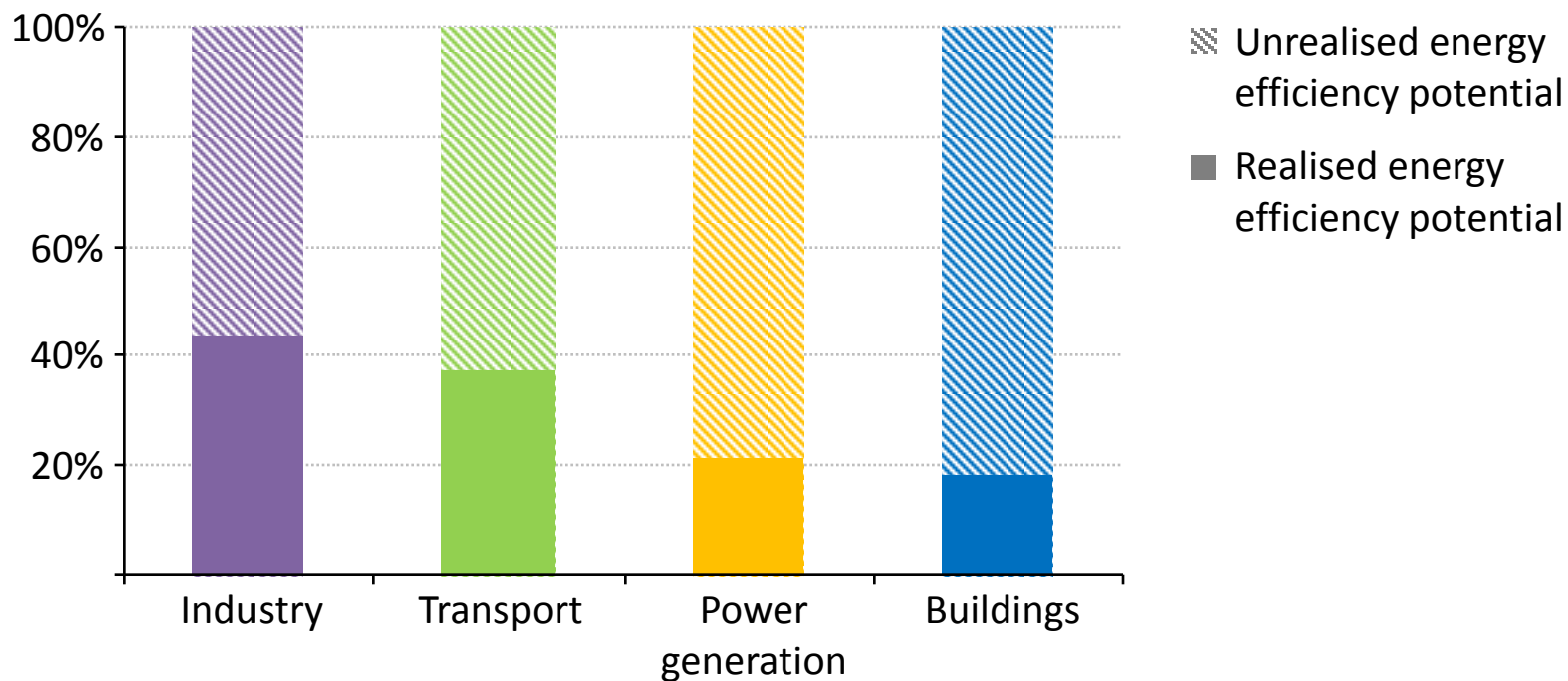
# Portfolio of decarbonising measures

## Emissions Reductions (Gt CO<sub>2</sub>)



# Energy efficiency: a huge opportunity going unrealised

## Energy efficiency potential used by sector in the New Policies Scenario



***Two-thirds of the economic potential to improve energy efficiency remains untapped in the period to 2035***

# Market failures impede EE investment



# 25 EE Policy Recommendations

## Cross-sectoral

1. Energy efficiency data collection and indicators
2. Strategies and action plans
3. Competitive energy markets with appropriate regulation
4. Private investment in energy efficiency
5. Monitoring, enforcement and evaluation of policies and measures

## Buildings

6. Mandatory building energy codes and minimum energy performance requirements;
7. Aiming for net zero energy consumption in buildings
8. Improving the energy efficiency of existing buildings
9. Building energy labels or certificates
10. Improved energy performance of building components and systems

## Appliances and Equipment

11. Mandatory MEPS and labels for appliances and equipment
12. Test standards and measurement protocols for appliances and equipment
13. Market transformation policies for appliances and equipment

## Lighting

14. Phase-out of inefficient lighting products and systems
15. Energy efficient lighting systems

## Transport

16. Mandatory vehicle fuel efficiency standards
17. Measures to improve vehicle fuel efficiency
18. Fuel-efficient non-engine components
19. Improved vehicle operational efficiency through Eco-driving and other measures
20. Transport system efficiency

## Industry

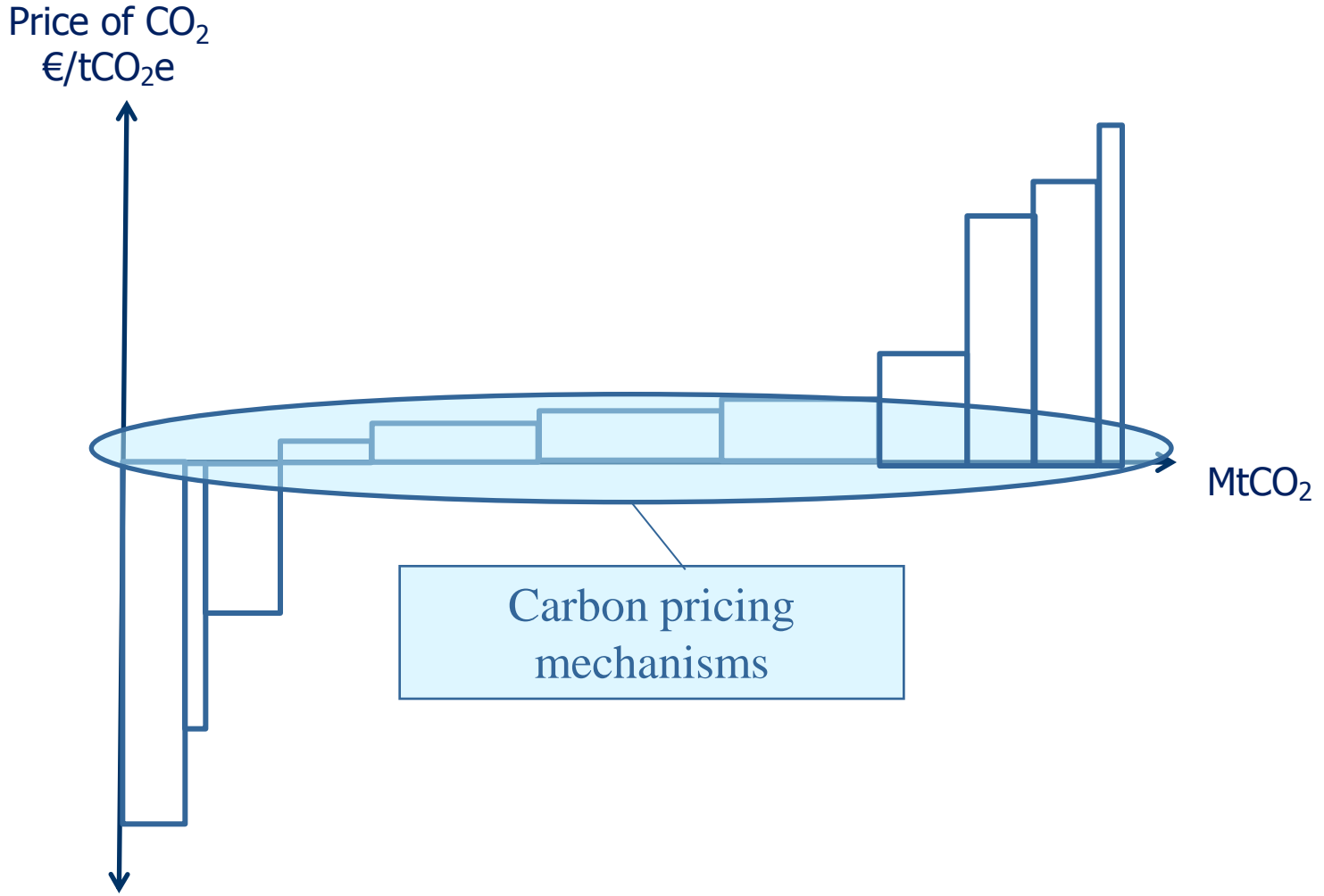
21. Energy Management in industry
22. High efficiency industrial equipment and systems
23. Energy efficiency services for small and medium enterprises
24. Complementary policies to support industrial energy efficiency

## Utilities and end-use

25. Energy Utilities and end-use energy efficiency



# Climate policies to address market failures





# Market failures require policies

**Effective policies are key . . .**

***. . . but is more needed?***

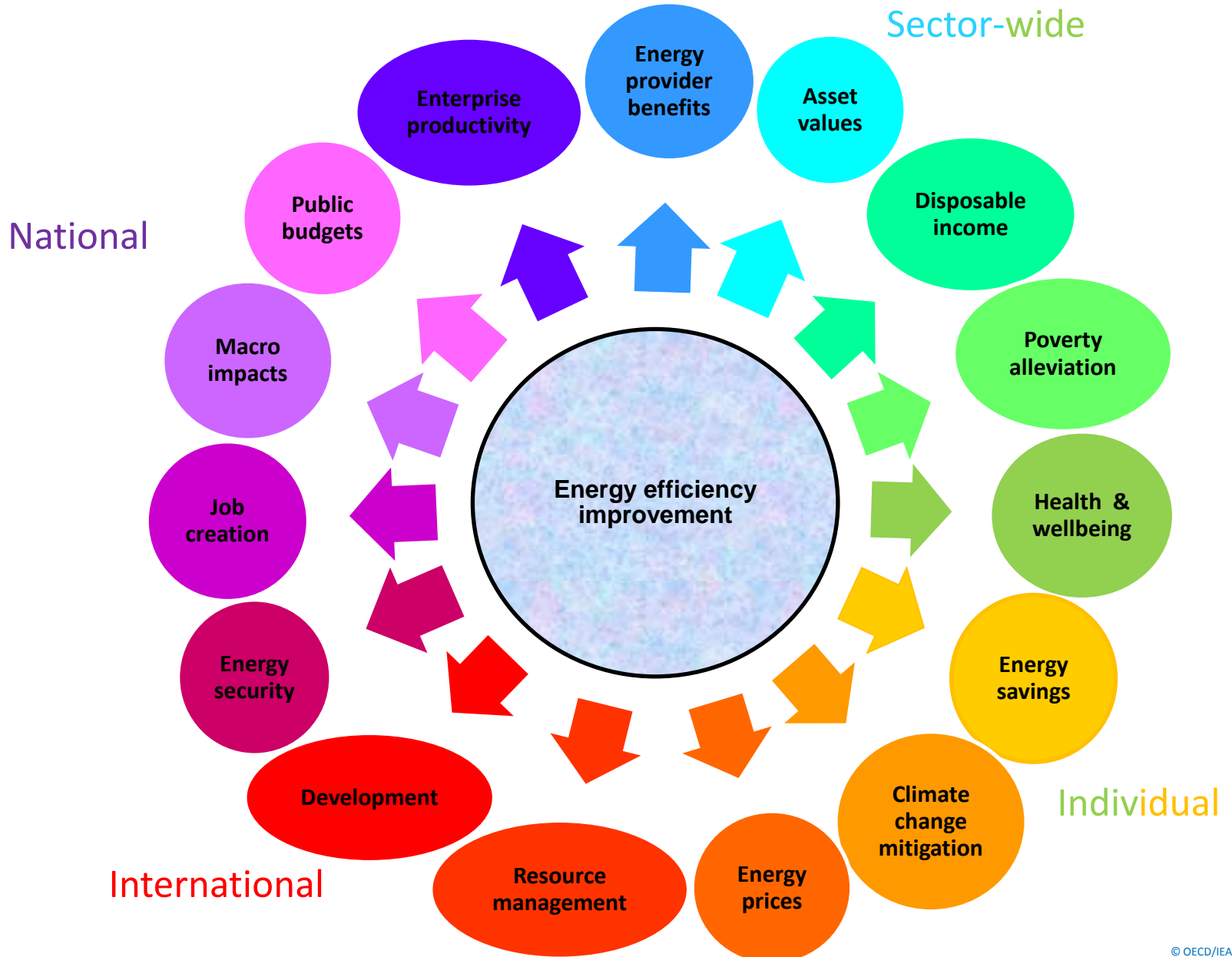
➤ **Three ‘non-conventional’ strategies for scaling up EE**

i. ...

ii. ...

iii. ...

# i. 'Multiple benefits' of EE

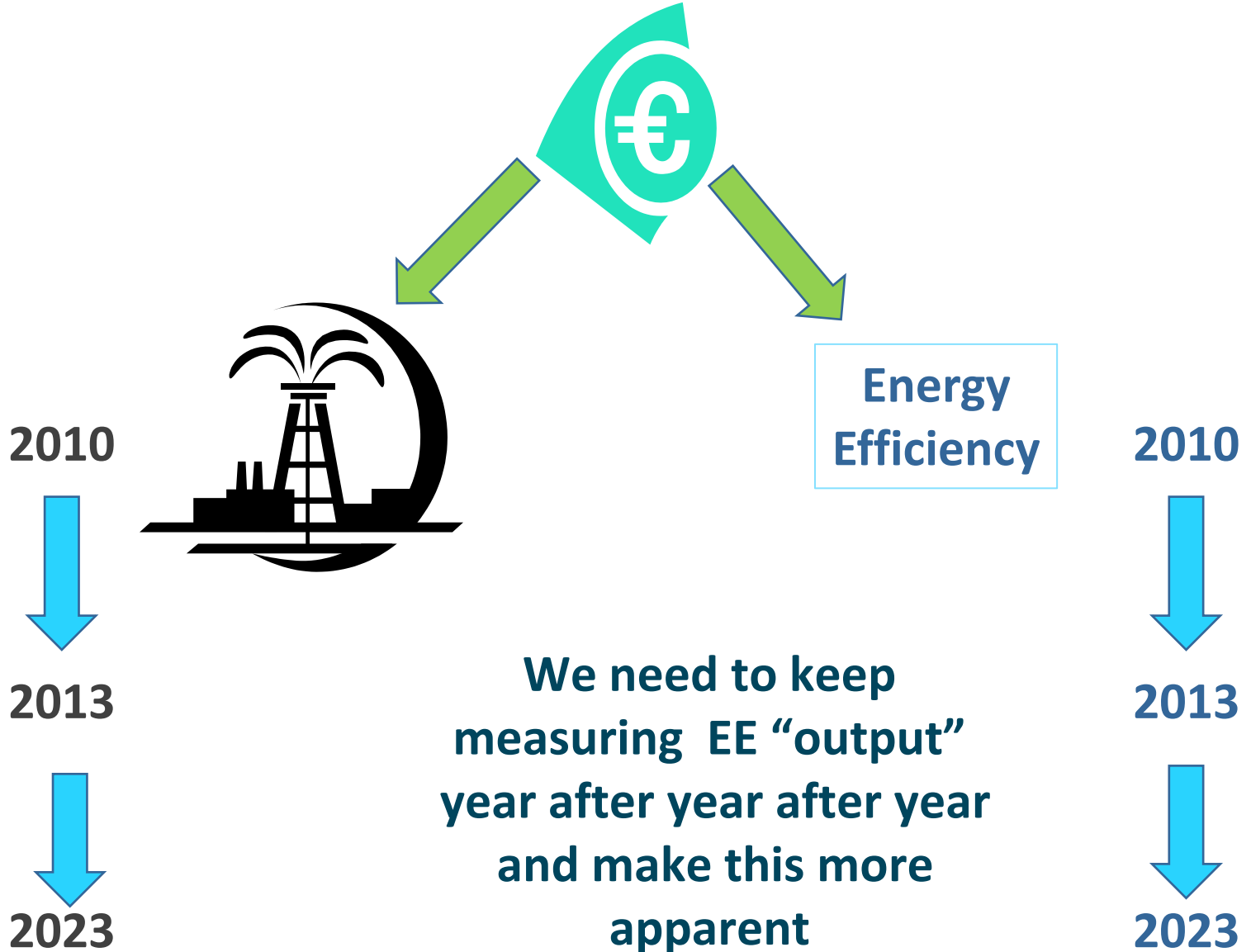


## Benefits vs. Co-Benefits Multiple Benefits

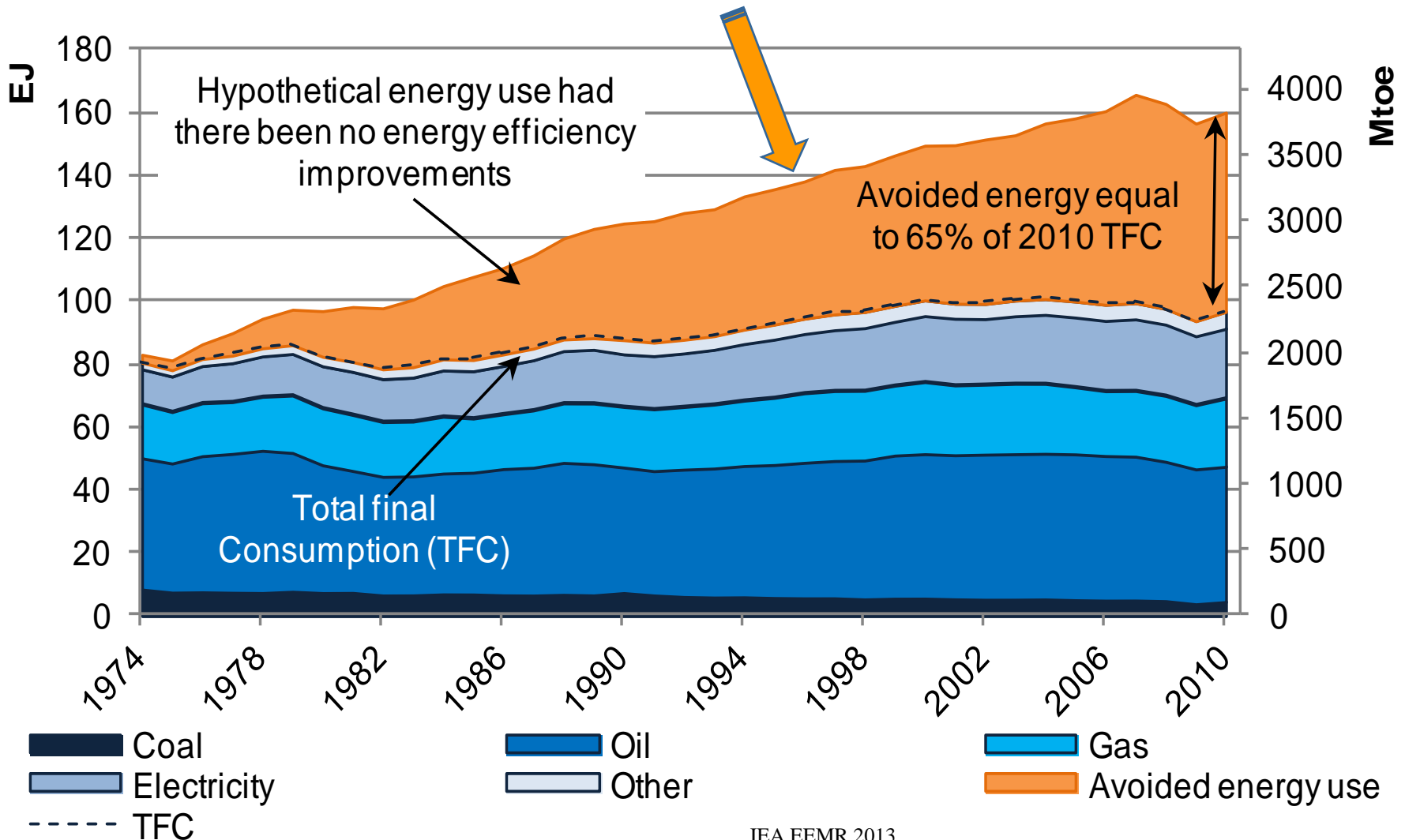
	Country or Stakeholder A	Cty/Stk B	Ctry/Stk C	Etc.
<b>Industrial Competitiveness</b>	Co-Benefit			
<b>Fuel Imports</b>	Primary	Co-Benefit		
<b>Poverty Alleviation and Development</b>			Primary	
<b>GHG Emissions</b>		Primary	Co-Benefit	
<b>Job Creation</b>	Co-Benefit	Co-Benefit		
<b>Local pollution</b>	Primary		Co-Benefit	

- Three 'non-conventional' strategies for scaling up:
  - i. ...
  - ii. Facing up to the Fuels Competition**
  - iii. ...

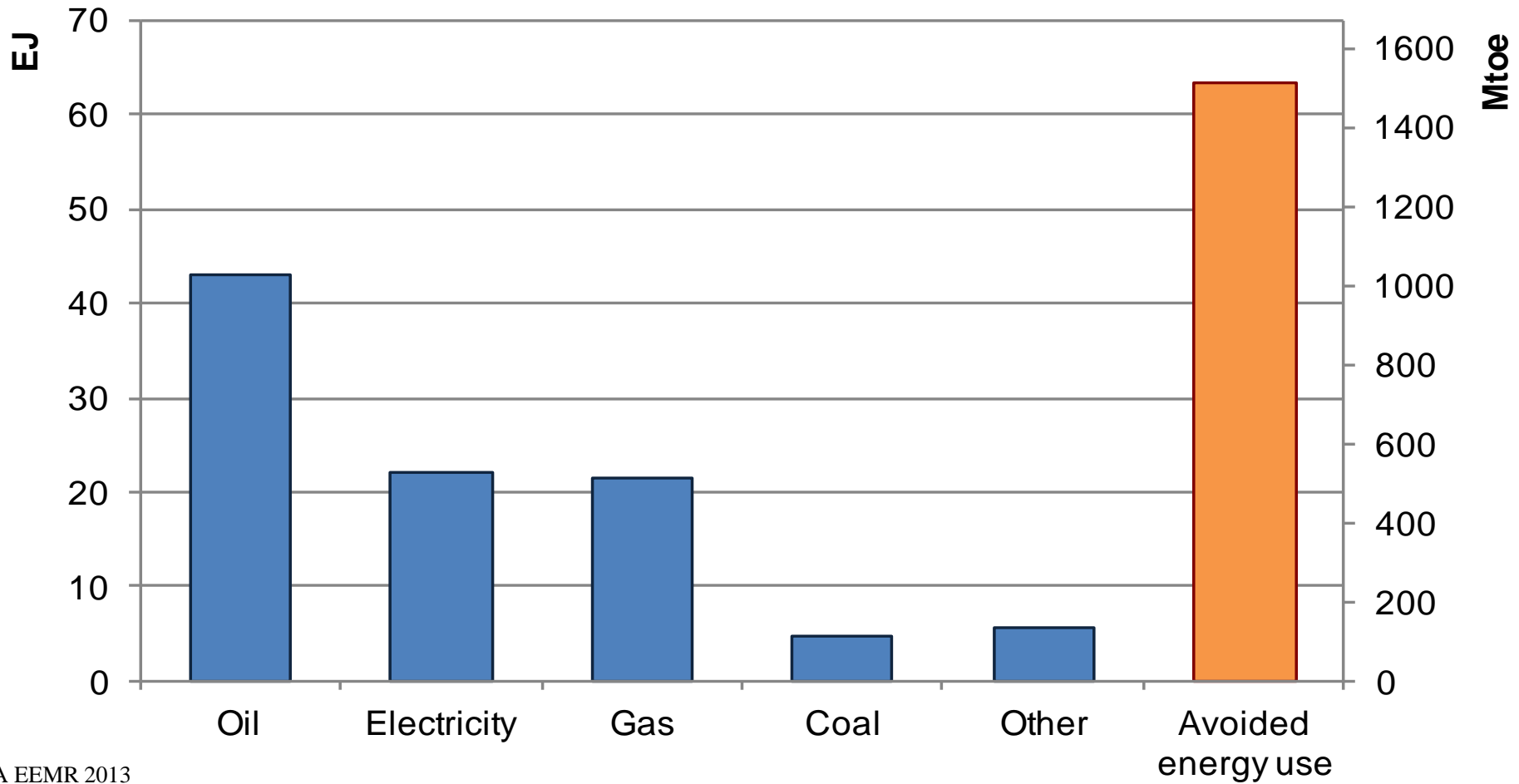
# EE keeps producing . . .



# EE: IEA's first fuel?



# EE: largest resource in 2010 (in IEA 11)





# Energy efficiency is . . .



Microsoft.com

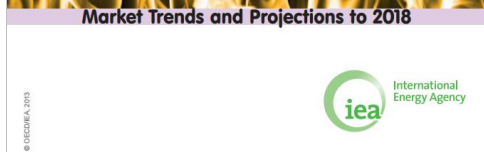
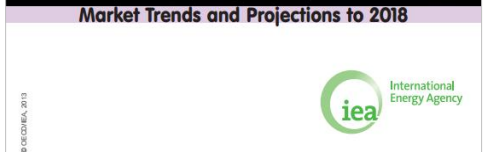
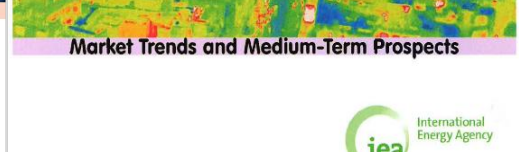
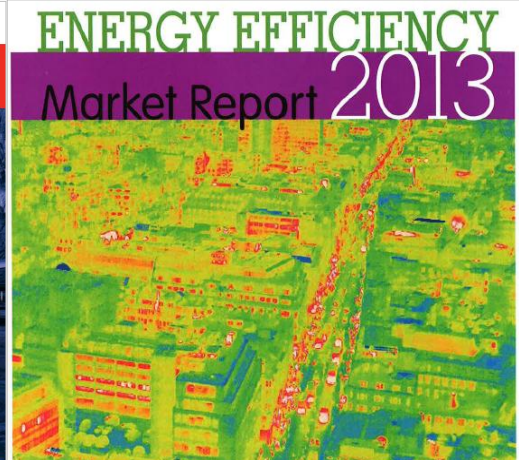
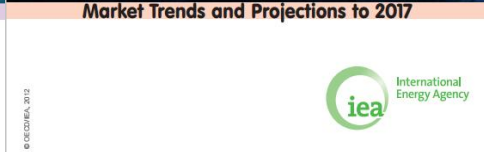
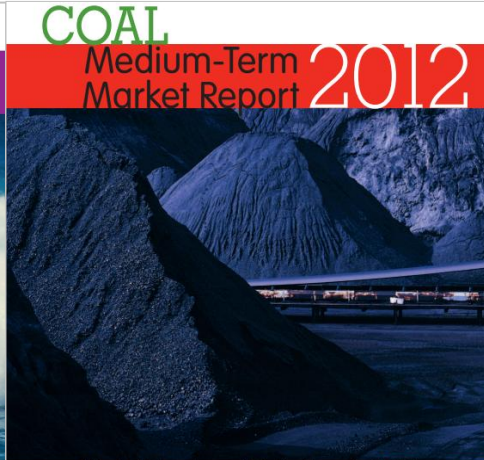
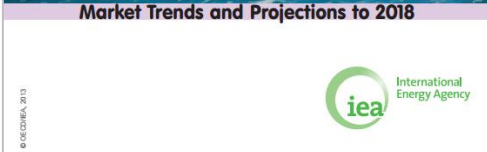


**a domestic fuel  
(‘the home-grown fuel’)**

- Three ‘non-conventional’ strategies for scaling up:
  - i. ...
  - ii. ...
  - iii. (Not) Just another IEA fuel market report**



# IEA fuel market reports



*strong Policies*

+

*stronger Public &  
Stakeholder  
support*

# Impact of supply- and demand-side improvements on US oil import needs

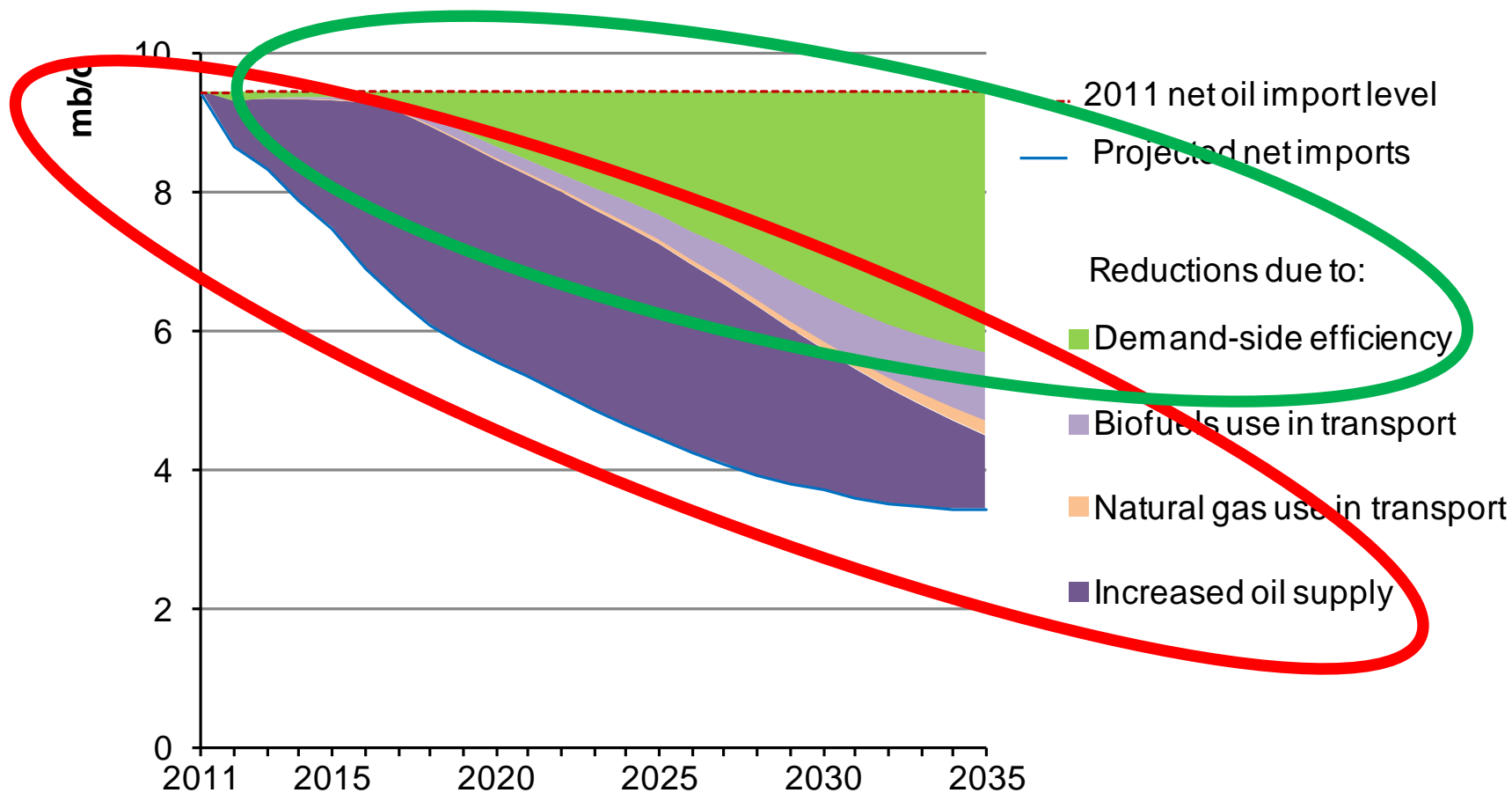




Photo by (Monica Silva)

# Thank You

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