

# WORLD ENERGY OUTLOOK

## World Energy Outlook

Dr. Timur Gül

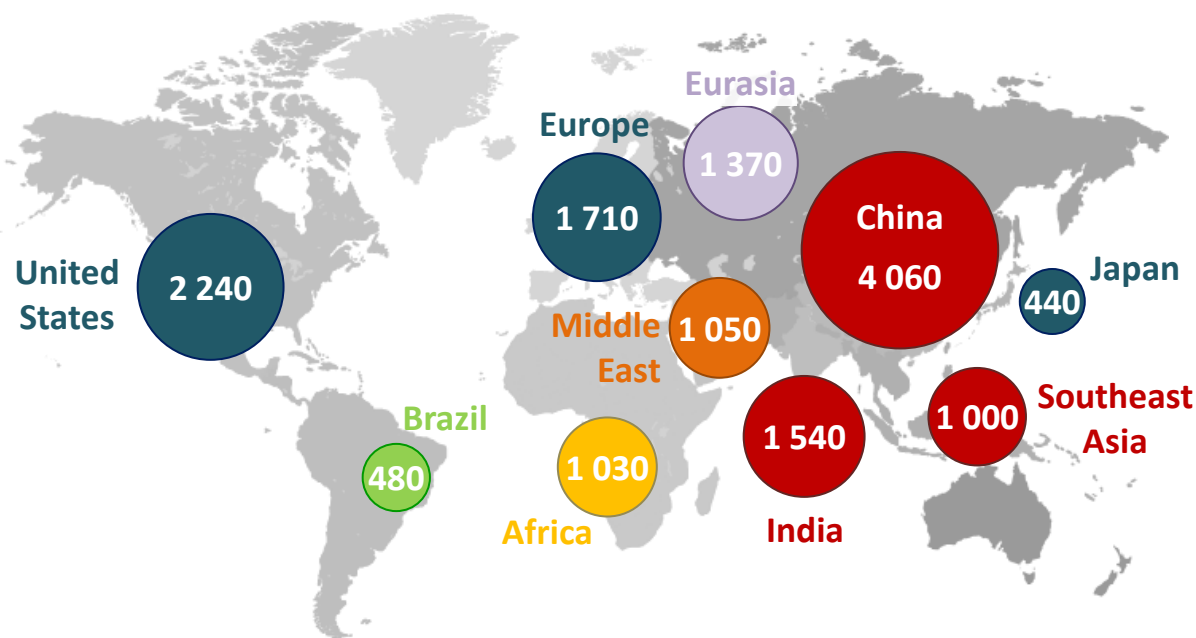
Directorate of Global Energy Economics, IEA

Riyadh, 22 January 2014

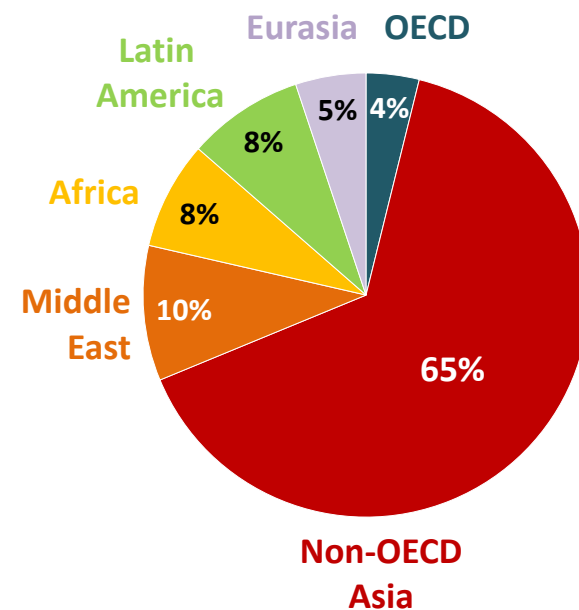
# The engine of energy demand growth moves to South Asia

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Primary energy demand, 2035 (Mtoe)



Share of global growth  
2012-2035

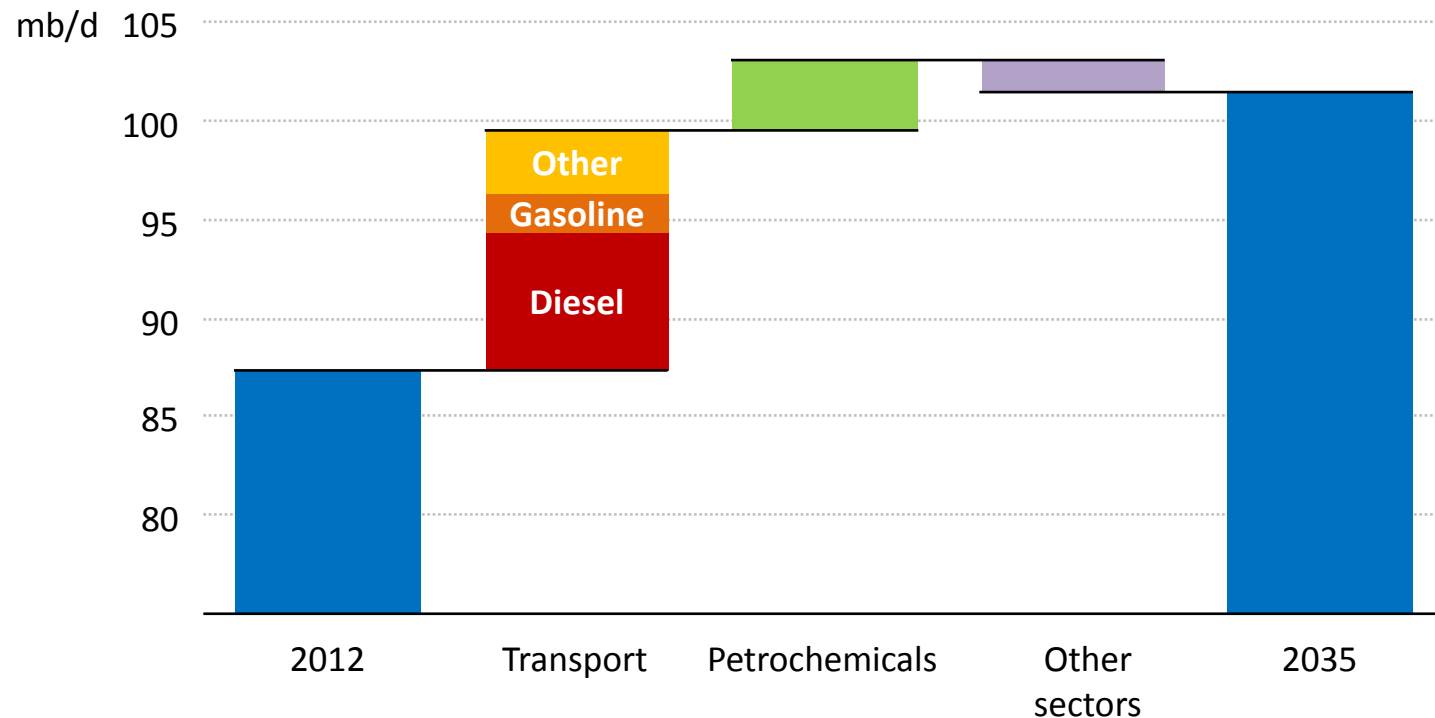


*China is the main driver of increasing energy demand in the current decade,  
but India takes over in the 2020s as the principal source of growth*

# Oil use grows, but in a narrowing set of markets

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Oil demand by sector

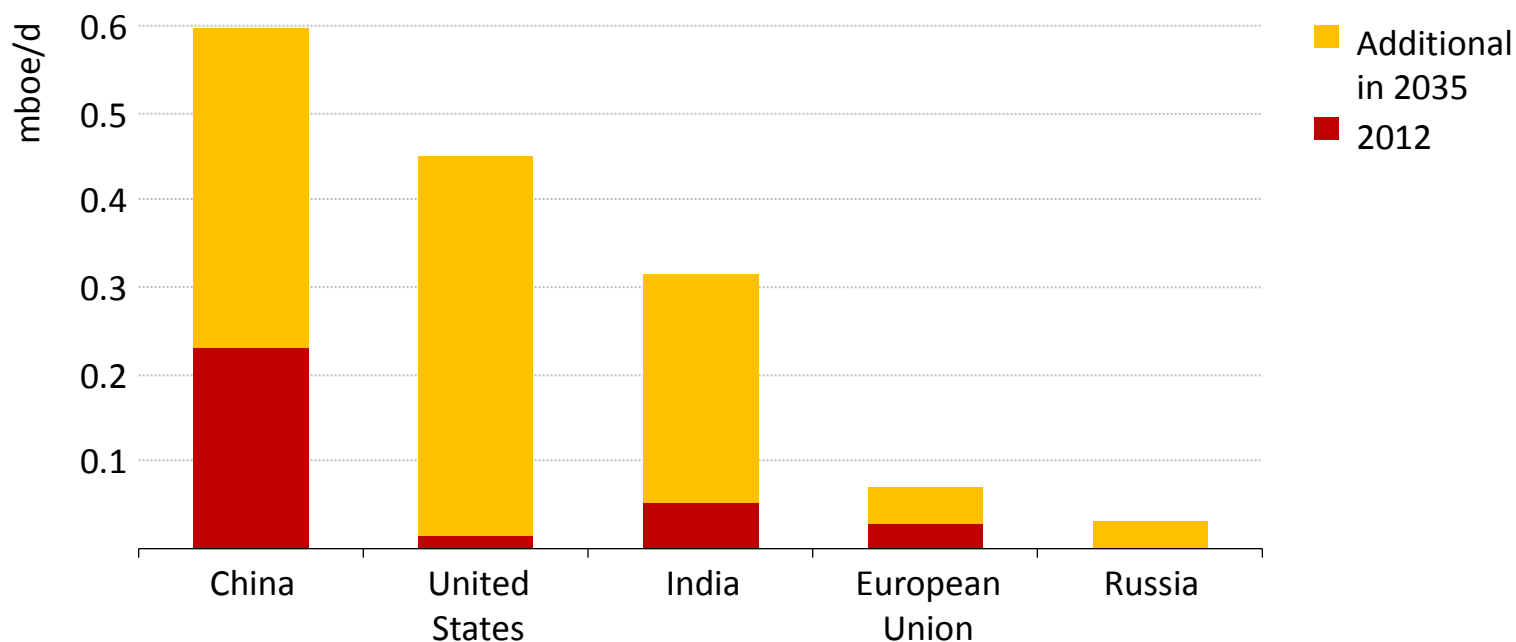


***China becomes the largest consumer of oil by 2030, as OECD oil use drops; demand is concentrated in transport, where diesel use surges by 5.5 mb/d, & petrochemicals***

# US and China drive gas use in road transport

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## Natural gas use in road transport by selected regions in the New Policies Scenario

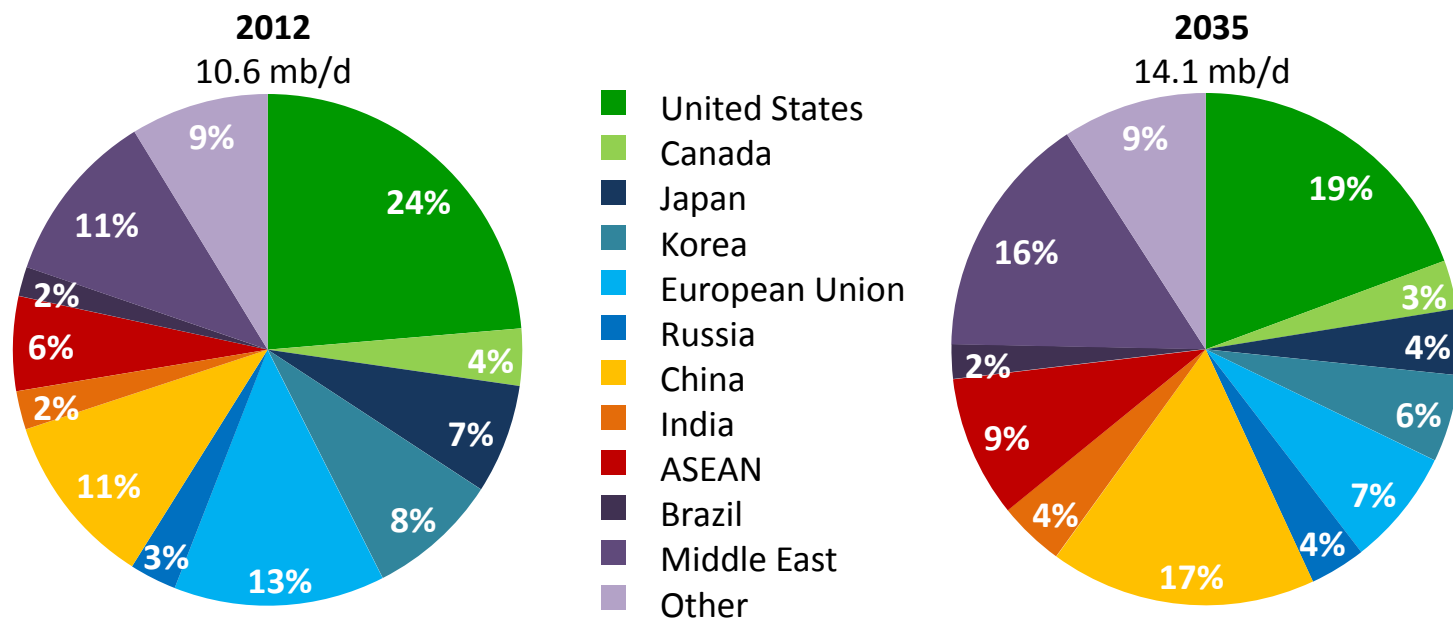


***Government support in China and low gas prices in the United States help gas make inroads, though it stays confined to selected markets.***

# Oil use for petrochemicals

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## Demand for oil as petrochemical feedstock by region in the New Policies Scenario

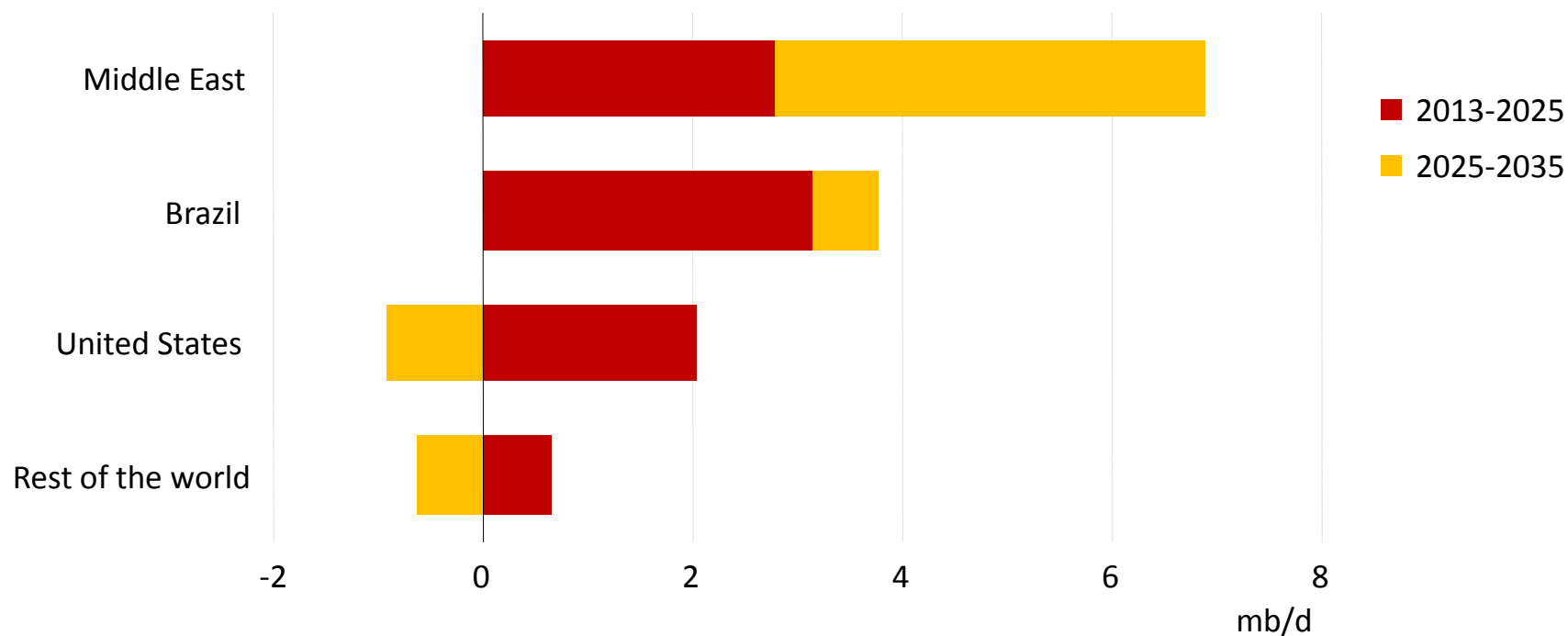


***Petrochemicals production is shifting away from Europe and Japan towards China, the Middle East and to some extent to the United States***

# Two chapters to the oil production story

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## Contributions to global oil production growth



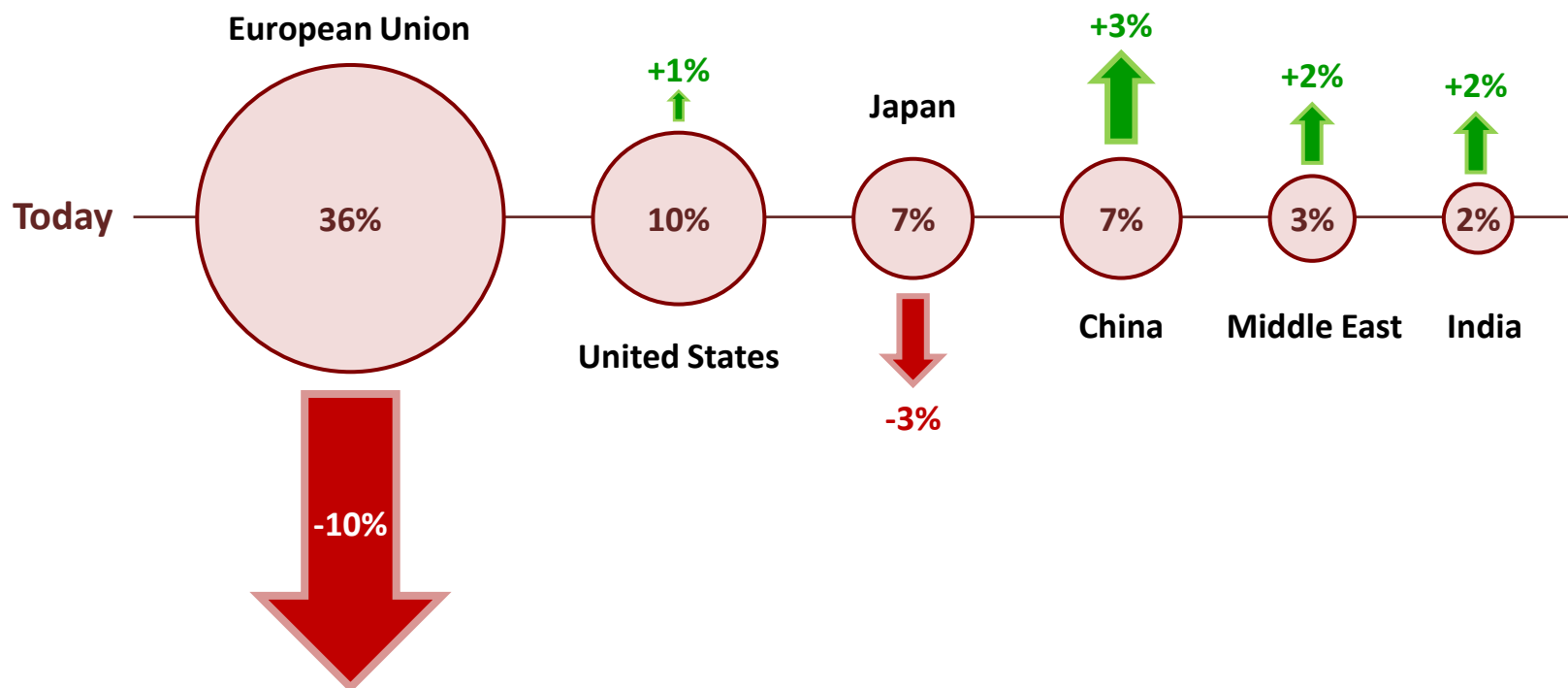
***The United States (light tight oil) & Brazil (deepwater) step up until the mid-2020s, but the Middle East is critical to the longer-term oil outlook***



# An energy boost to the economy?

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## Share of global export market for energy-intensive goods

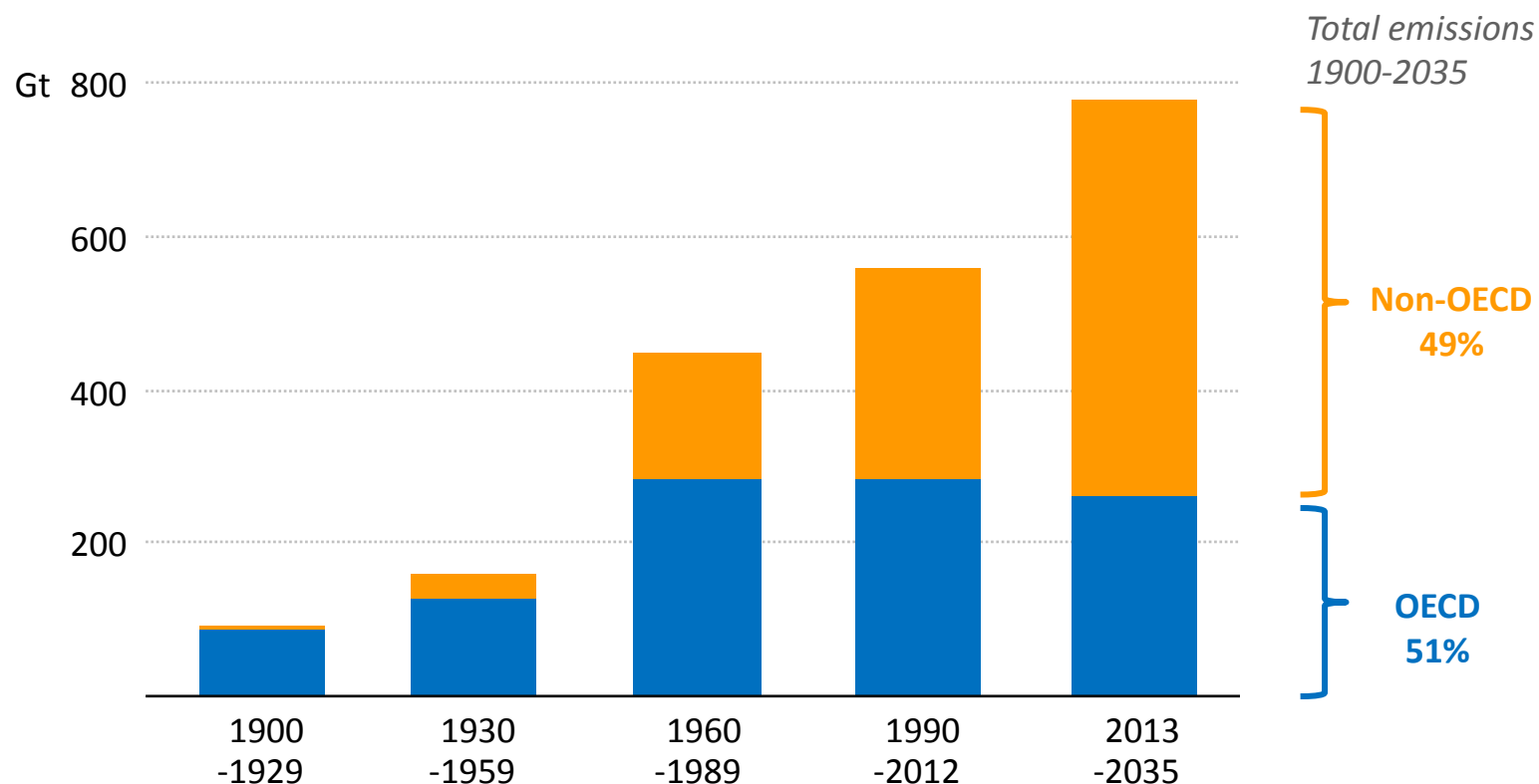


*The US, together with key emerging economies, increases its export market share for energy-intensive goods, while the EU and Japan see a sharp decline*

# Emissions off track in the run-up to the 2015 climate summit in France

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## Cumulative energy-related CO<sub>2</sub> emissions



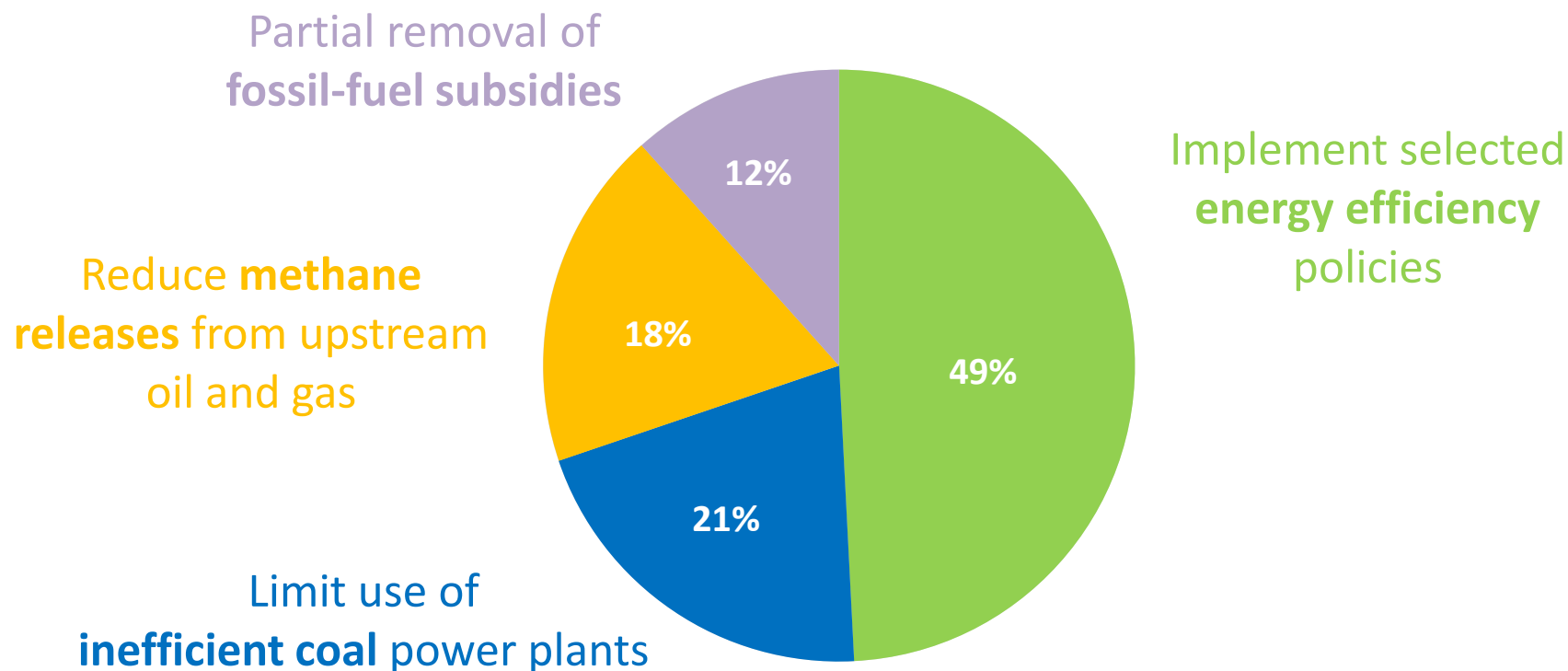
***Non-OECD countries account for a rising share of emissions, although 2035 per capita levels are only half of OECD***



# Four measures can stop emissions growth by 2020

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## Emissions savings in the 4-for-2 °C Scenario, 2020



Source: WEO Special Report 2013

***Four measures can stop the growth in emissions by 2020 at no net economic cost, reducing emissions by 3.1 Gt, 80% of the savings required for a 2 °C path***

# Orientation for a fast-changing energy world

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- China, then India, drive the growing dominance of Asia in global energy demand & trade
- Technology is opening up new oil resources, but the Middle East remains central to the longer-term outlook
- Regional price gaps & concerns over competitiveness are here to stay, but there are ways to react – with efficiency first in line
- Four measures can stop emissions growth by 2020 and keep the 2°C target alive, without harming economic growth