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FuelsEurope

The Changing International Energy Environment and the New Challenges

Athens, 11 November 2014

Agenda

- About FuelsEurope
- Global Energy System
- Role of Oil Products & Challenges for the EU Refining
- Impact of EU policies on the competitiveness of EU Refining

FuelsEurope represents 43 Member Companies \approx 100% of EU Refining



Who is FuelsEurope?



ENVIRONMENTAL SCIENCE FOR THE EUROPEAN REFINING INDUSTRY

Concawe

- Has a long standing reputation for sound scientific analysis and data development, and long term research.
- Endeavours to conduct its activities with objectivity and scientific integrity.
- Carries out research on environmental, health and safety issues relevant to the oil industry.
- Communicates the findings in order to improve understanding of these issues by all stakeholders (industry, the EU authorities, public at large).




REFINING PRODUCTS FOR OUR EVERYDAY LIFE

FuelsEurope

- Aims to promote economically and environmentally sustainable refining, supply and use of petroleum products in the EU, by providing input and expert advice to the EU Institutions, Member State Governments and the wider community
- Contributes in a constructive and pro-active way to the development and implementation of EU policies and regulations.

Agenda

EU is part of a global energy system: what are the outlook and challenges

By 2040 the world can expect ...

- 2 Billion more people on the planet: 7 \Rightarrow 9 B
- 130% larger global economy
- About 35% greater demand for energy – could be more than double without expected gains in efficiency!
- OECD energy demand flat/declining; all growth in non OECD.

But in 2014,

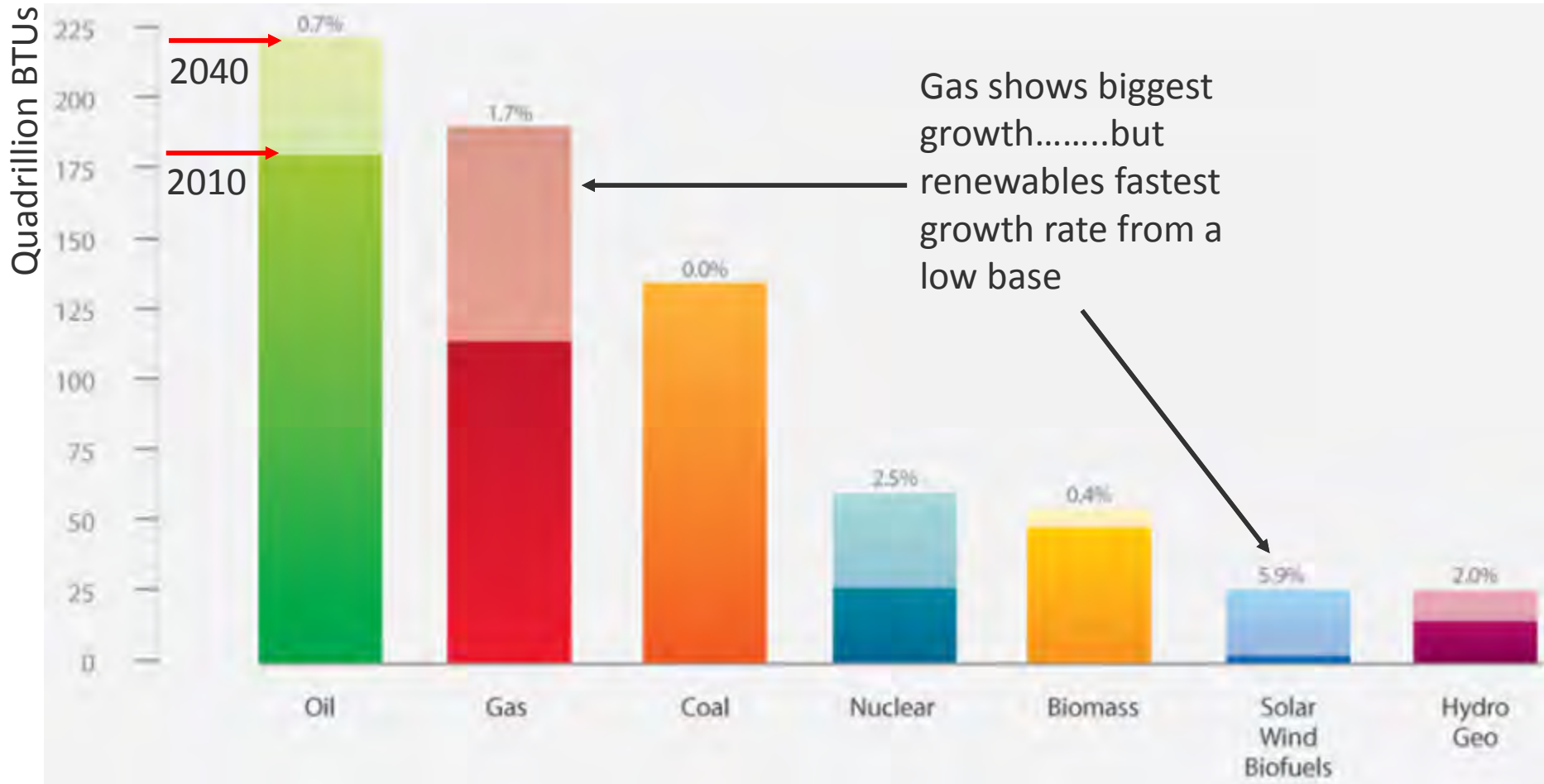
- 20% (1.3B) people have no electricity; 40% (2.6 B) cook with traditional biomass.

\Rightarrow pressures on energy, resources and the environment.

“The great energy challenge of the future, *which will test all sources*, is meeting the demand growth of a growing world” Daniel Yergin, IHS Vice-Chairman

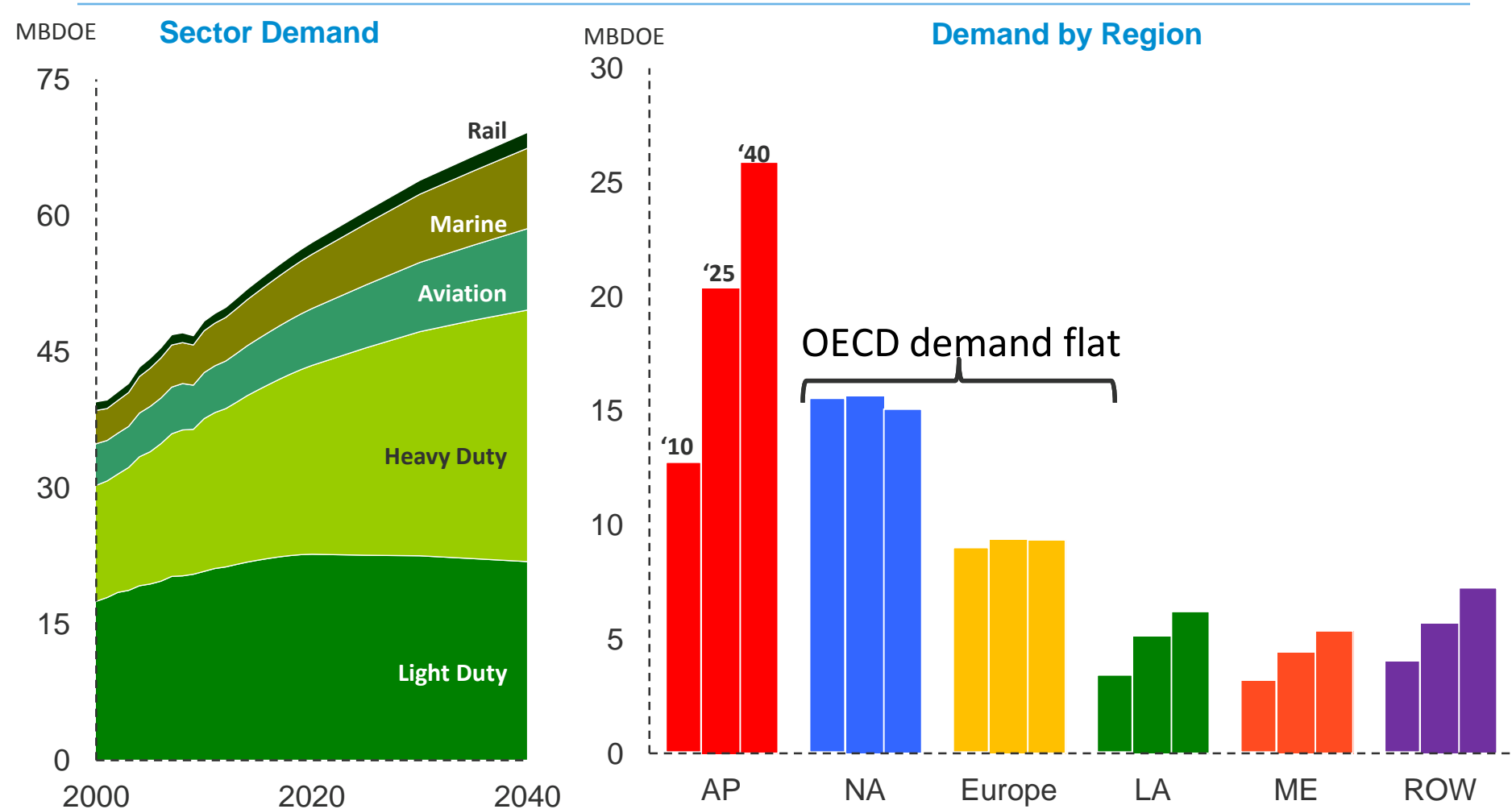
- And he could have added.....whilst using resources intelligently and preserving the environment.
-

Global energy mix continues to evolve: all growth in non OECD



Source: ExxonMobil, The Outlook for Energy

Global transportation energy demand continues to grow.



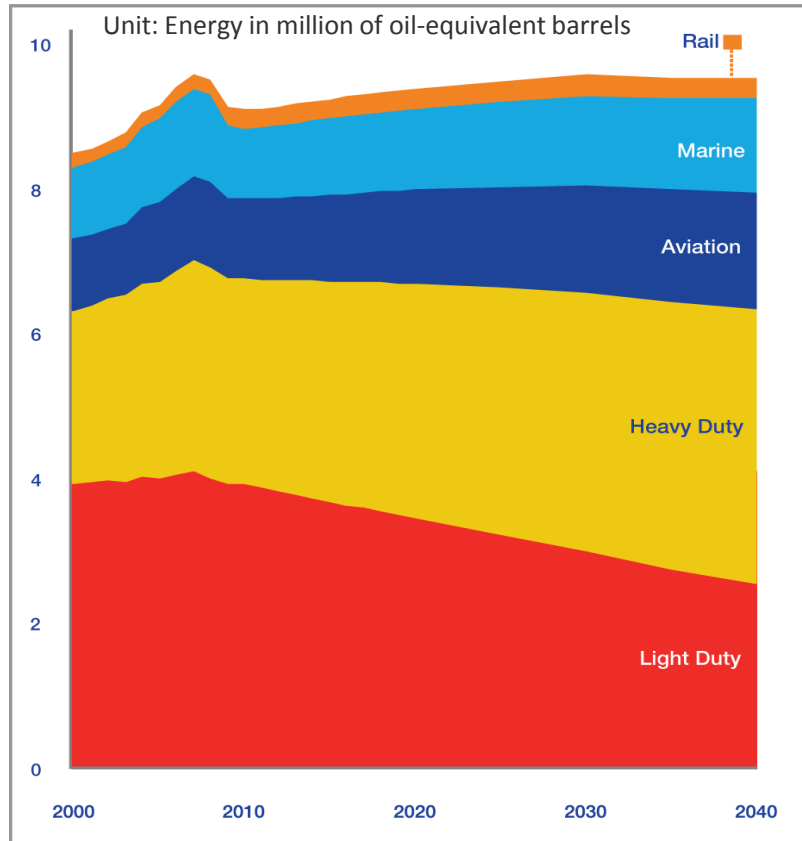
Source: ExxonMobil, The Outlook for Energy

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The role of oil: EU continues to need oil products for decades.....how will they be supplied?

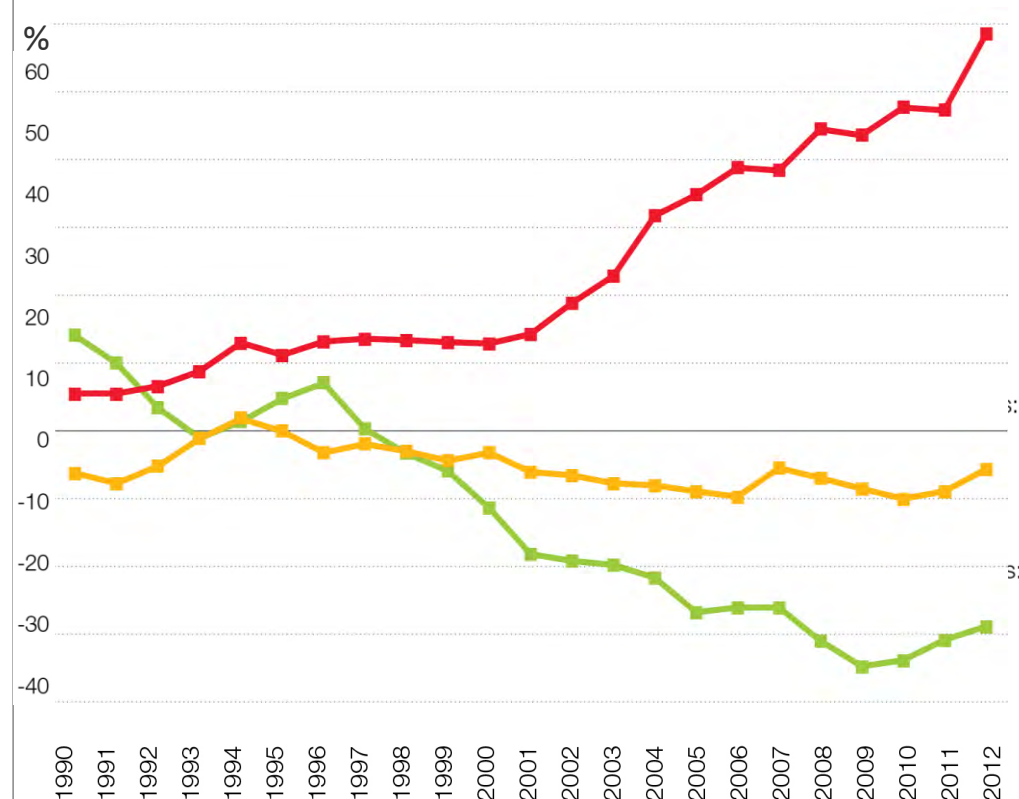
EU 28 transport energy demand: only **12% of global demand**; major decline in light duty, but growth in other transport and growing trade imbalance

Transport fuel demand in the EU ; total energy including renewables flat, oil use declines



Source: ExxonMobil 2012 Outlook for Energy

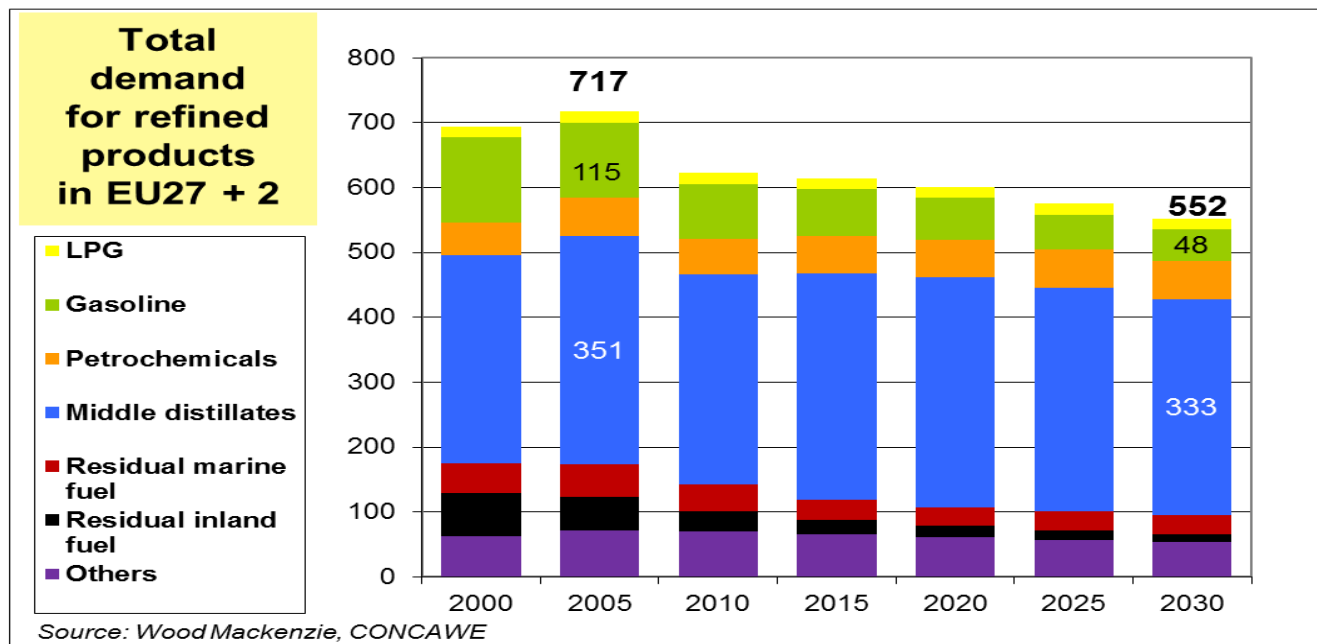
Net trade flows for refined products demonstrate the trend of growing gasoline surplus & gasoil/diesel/jet deficits



Source: Eurostat

So, EU will need oil products for the foreseeable future

- Not just for transport but for close integration with petrochemical industry
 - 2/3 of EU petrochemical plants integrated with refineries; 68% of raw materials refinery product
- ⇒ Refining is a key component of the EU industrial fabric and contributes to a cost effective security of supply.



Refining is a strategic industry to the EU

- Economic value: EU refining contributes annually:
 - €23B added value to EU economy and €5B pa average investment.
 - Integration with €240B turnover petrochemicals industry.
- Skilled jobs and technology: EU refining is a leading industry for:
 - 140 000 direct jobs at skill levels -in top 2 EU industries.
 - Innovation in products and processes. – in top 4 EU industries.
- Environmental responsibility: world class standards:
 - World class energy efficiency.
 - World class water, air emissions and product qualities standards.
- Reliable suppliers:
 - Oil fuels 90% of 270M cars and 34M trucks in EU today, still 80% in 2035.
 - Supply disruptions extremely rare from flexible, efficient refining network.

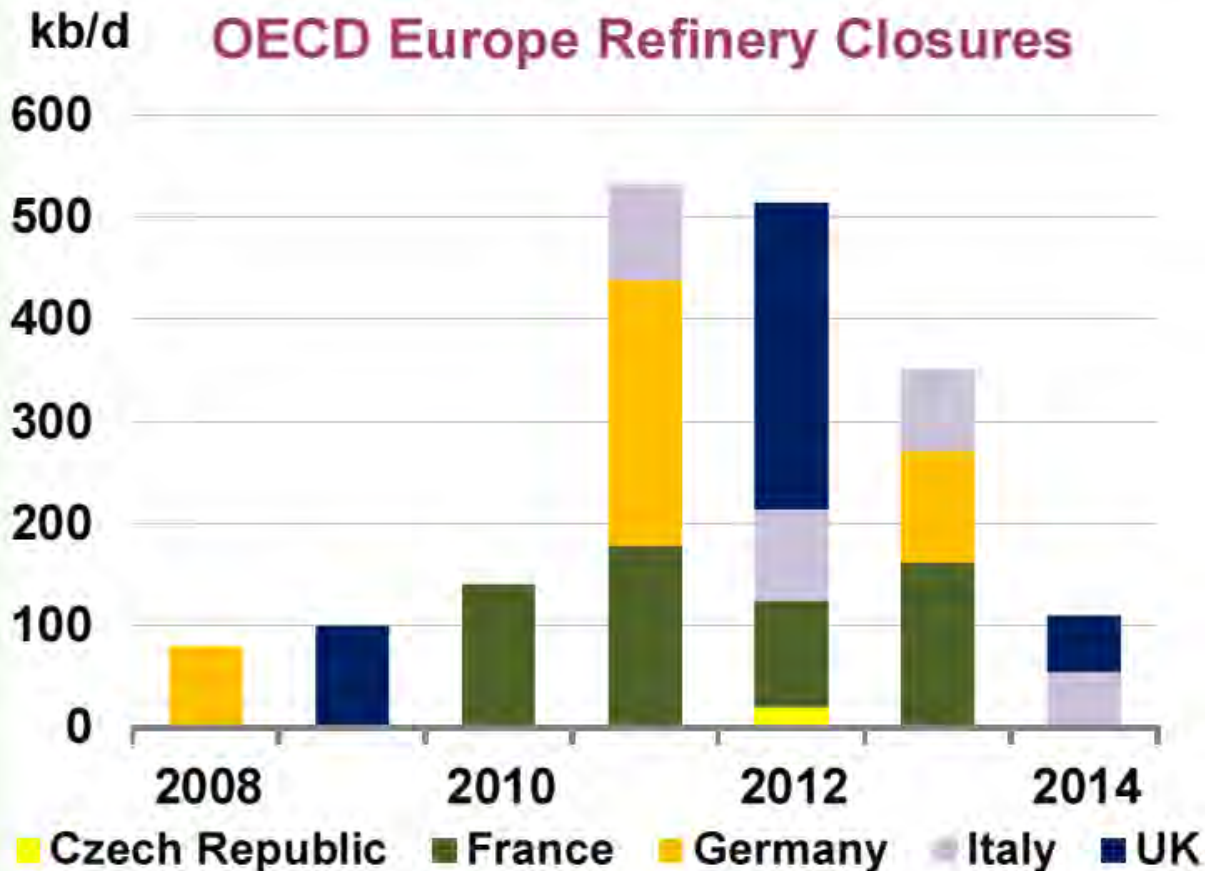
Economic impact of the refining sector in Greece, 2012 M euros

	Direct	Indirect	Induced	Total
Gross production value	16,574	1,616	2,449	20,639
Gross value added	1,169	553	1,447	3,169
GDP	1,459	592	1,776	3,828
Labour income	273	182	373	829
<i>Taxes on products</i>	290	39	329	659
<i>Taxes on production</i>	0	0	-25	-25
<i>Labour income taxes</i>	19	13	26	59
Total taxes	310	52	331	693
Social security contributions	80	65	101	246
Taxes and social security contributions	390	117	432	939
Employment (number of jobs)	4,100	7,236	29,293	40,629

- **Trade:** With the exports of petroleum products reaching **10.3 billion Euro in 2012**, the Greek refineries contributed **37.5% of the total exports of the country**
- **Investment:** The sector has a strong investment activity, with investment totalling **2.7 billion Euro in 2009-2012**, when GDP contracted by more than 20%

Source: Foundation for Economic Research & Industrial Research (IOBE)

But EU refineries are closing at a fast rate.



15 refineries (102-87) shut-down
2008-2013 → 8% capacity decline

Another 3 have reduced capacity,
for a total of -1.9 mb/d

Estimated 10 000+ direct skilled
jobs, at least 40 000 indirect jobs.

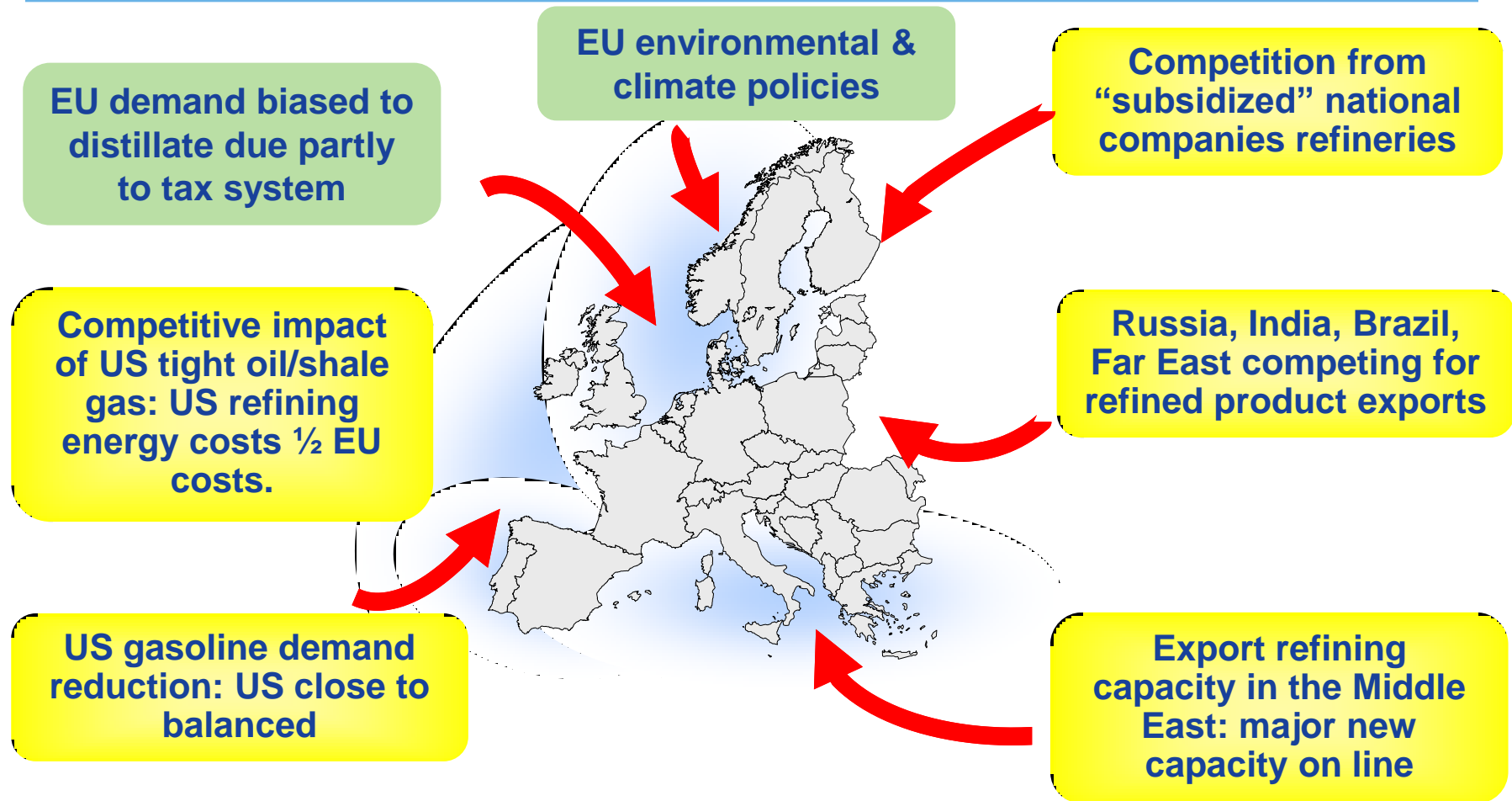
Sources:
Capacity: IEA, Employment: CWE safety figures

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How do EU policies affect the
competitiveness of EU
Refining?

What should the EU do?

EU policy and legislation add to external competitive pressure



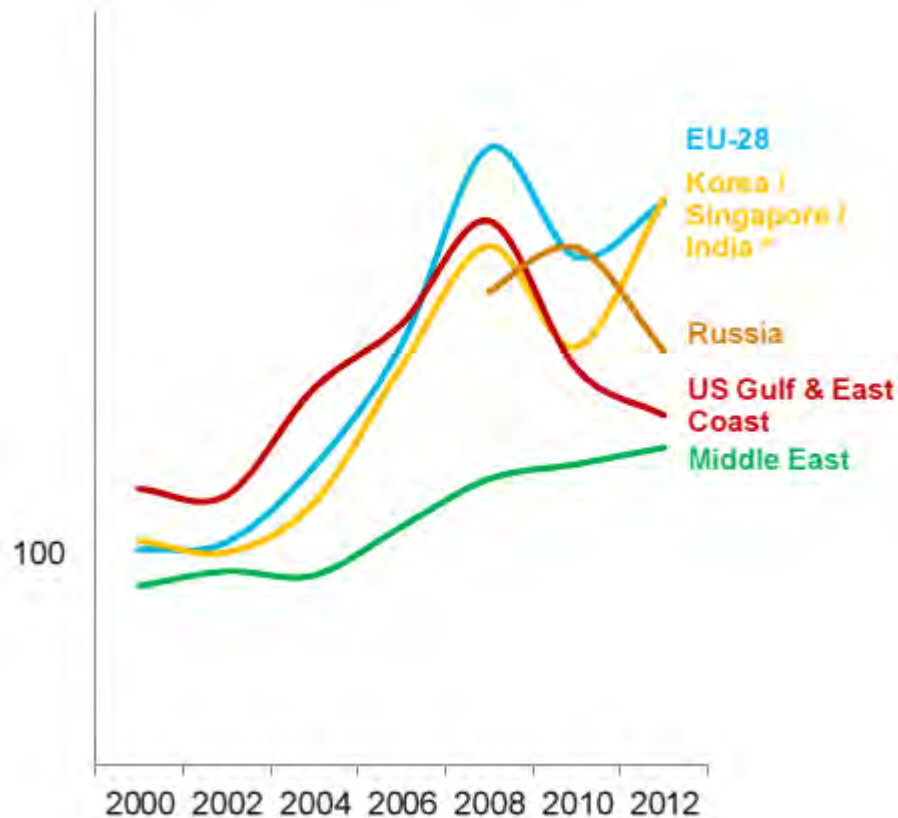
PURVIN & GERTZ Source: Purvin & Gertz Global Petroleum Market Outlook

EU Policies create additional competitive pressure for EU Refining

- Policies that affect product demand:
 - Taxation has favoured diesel use over gasoline.
 - Alternatives to oil either mandated or subsidised – bio fuels/electricity.
- Policies that affect EU refining cost:
 - Carbon pricing: with partial protection from partial free allowances.
 - New 2030 Framework proposes **-43% emissions reductions by 2030**. Technically infeasible for refining.
- Policies that affect refiners investments:
 - Tough new Industrial Emissions standards.
 - Marine fuel sulphur limits go beyond IMO standards.
- Policies to control access to raw materials:
 - Attempts to stop access by EU refiners to competitive energy & feedstocks (TTIP/FQD).

Europe cannot afford to have more stringent regulations in addition to high cost

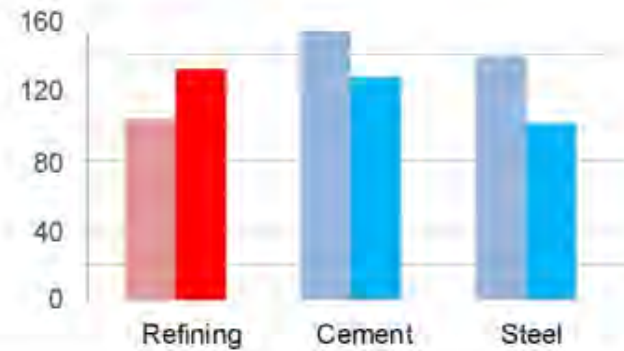
Cash OPEX (including energy)
\$/ EDC (indexed to EU-28 =100 in 2000)



Source: Solomon Associates

- ✓ IED: BREF Refining for air emissions
- ✓ Sulphur in marine fuels Directive
- ✓ Mandates for alternative fuels
- ✓ Fuel Quality Directive Art 7a
- ✓ ETS / CO₂ taxation : Refining, only major industrial sector with deficit of "free allowances"

2013 allowances and CO₂ emissions for main sectors*
Mt CO₂ equivalent



Source: TOTAL

FuelsEurope Call for Action – 4 Keys to unlock EU Growth



BALANCE

SUCCESSFULLY MANAGING THE LONG TRANSITION TO A COMPETITIVE LOWER CARBON EU ECONOMY WHICH IS BOTH ENVIRONMENTALLY AND ECONOMICALLY SUSTAINABLE IS VITAL. THIS REQUIRES A BETTER POLICY BALANCE BETWEEN COMPETITIVENESS, SECURITY OF SUPPLY AND DECARBONISATION OBJECTIVES.



EVALUATE

THE "EVALUATE FIRST" PRINCIPLE SHOULD BE CONSISTENTLY APPLIED INTO POLICY-MAKING, USING EVIDENCE AND SCIENCE AS BASIS FOR ALL PROPOSALS.



ACCESS

ACCESS TO COMPETITIVELY PRICED ENERGY AND RAW MATERIALS IS VITAL FOR EU MANUFACTURING INDUSTRIES.



REALISM

A COMPETITIVE EU ECONOMY NEEDS A 2030 FRAMEWORK WHICH IS REALISTIC, COHERENT AND LEARNS FROM PAST EU EXPERIENCE.

THANK YOU FOR YOUR ATTENTION

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