



The future of oil in the EU

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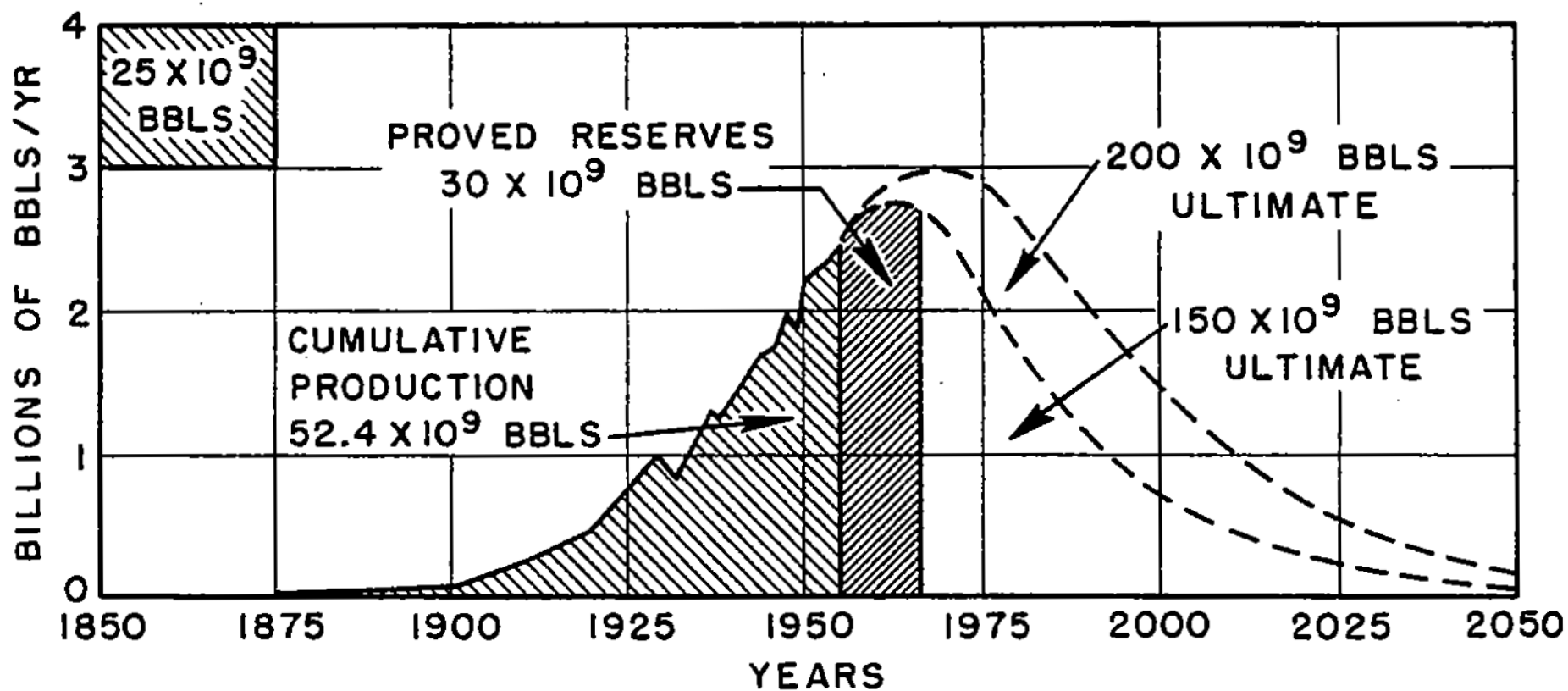
**"Towards the end of oil"
conference**

European Parliament, Brussels, 15 November 2012



European
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US crude oil production according to Hubbert (1956)



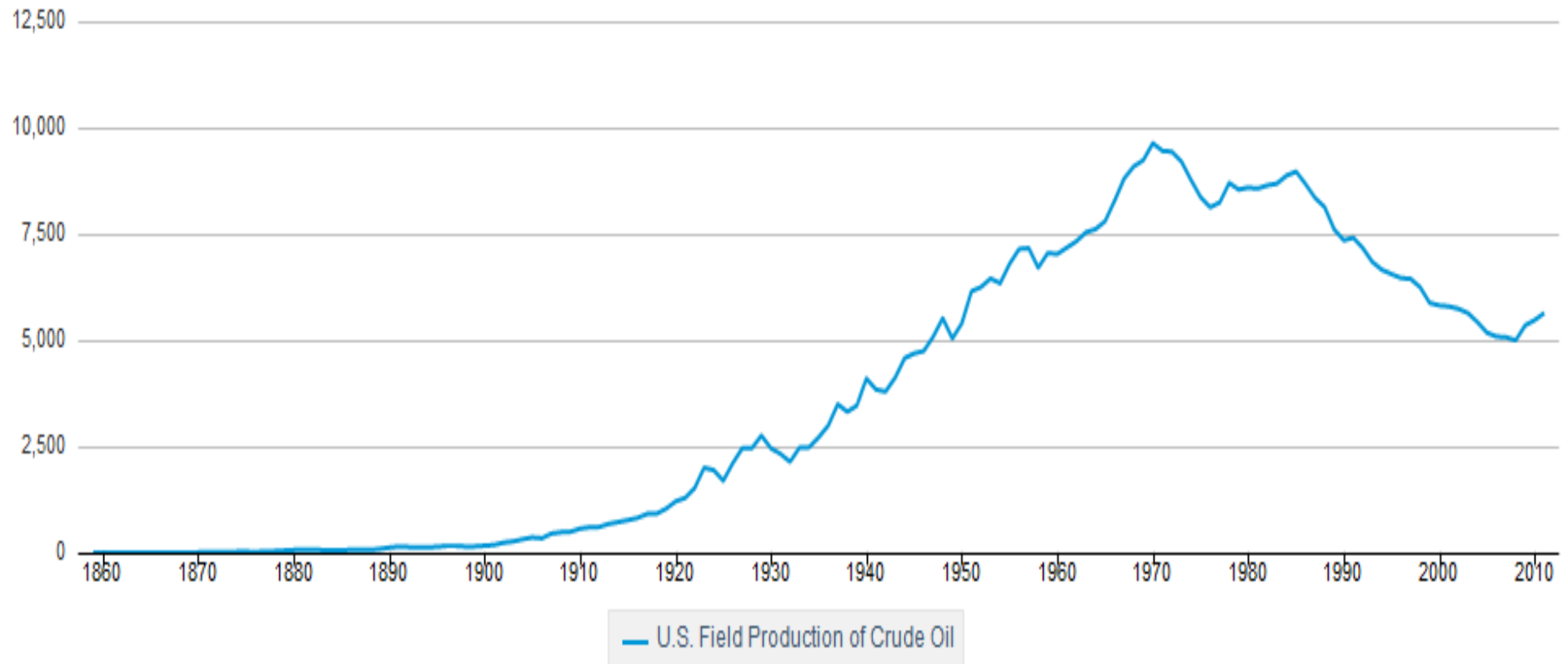
Source: Hubbert, Marion King: Nuclear Energy and the Fossil Fuels (1956) (<http://www.hubbertpeak.com/hubbert/1956/1956.pdf>)



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Actual US crude oil production

Thousand Barrels per Day

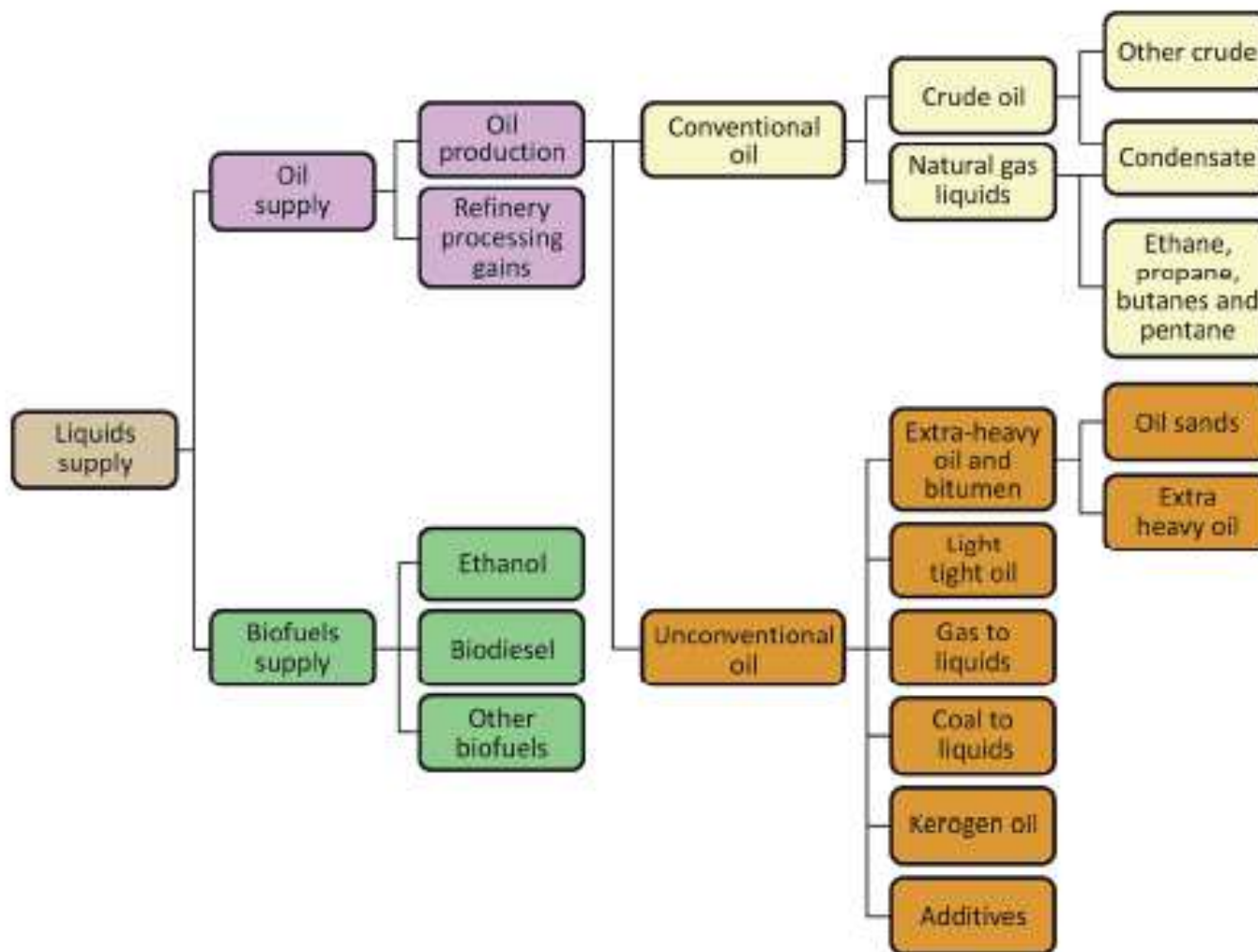


Source: U.S. Energy Information Administration

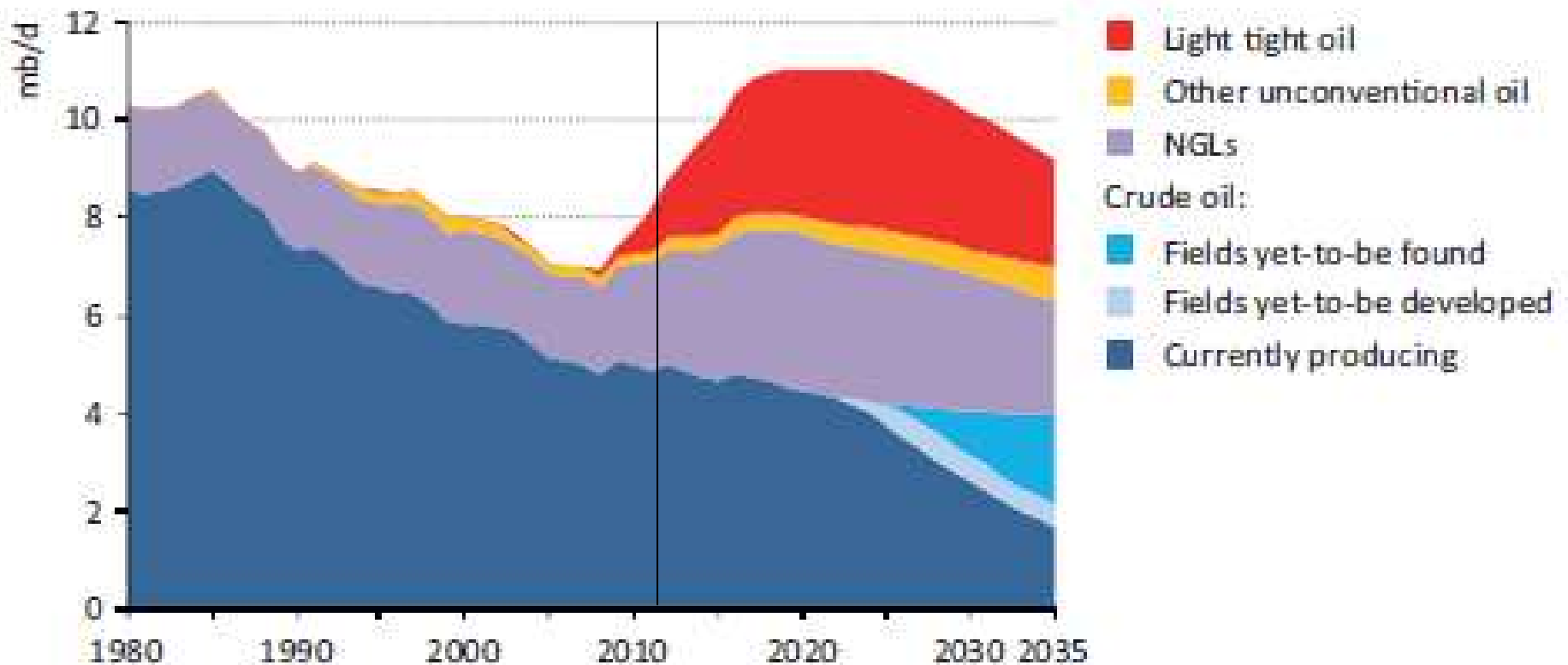


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Liquid fuels



US crude oil production according to the IEA World Energy Outlook 2012

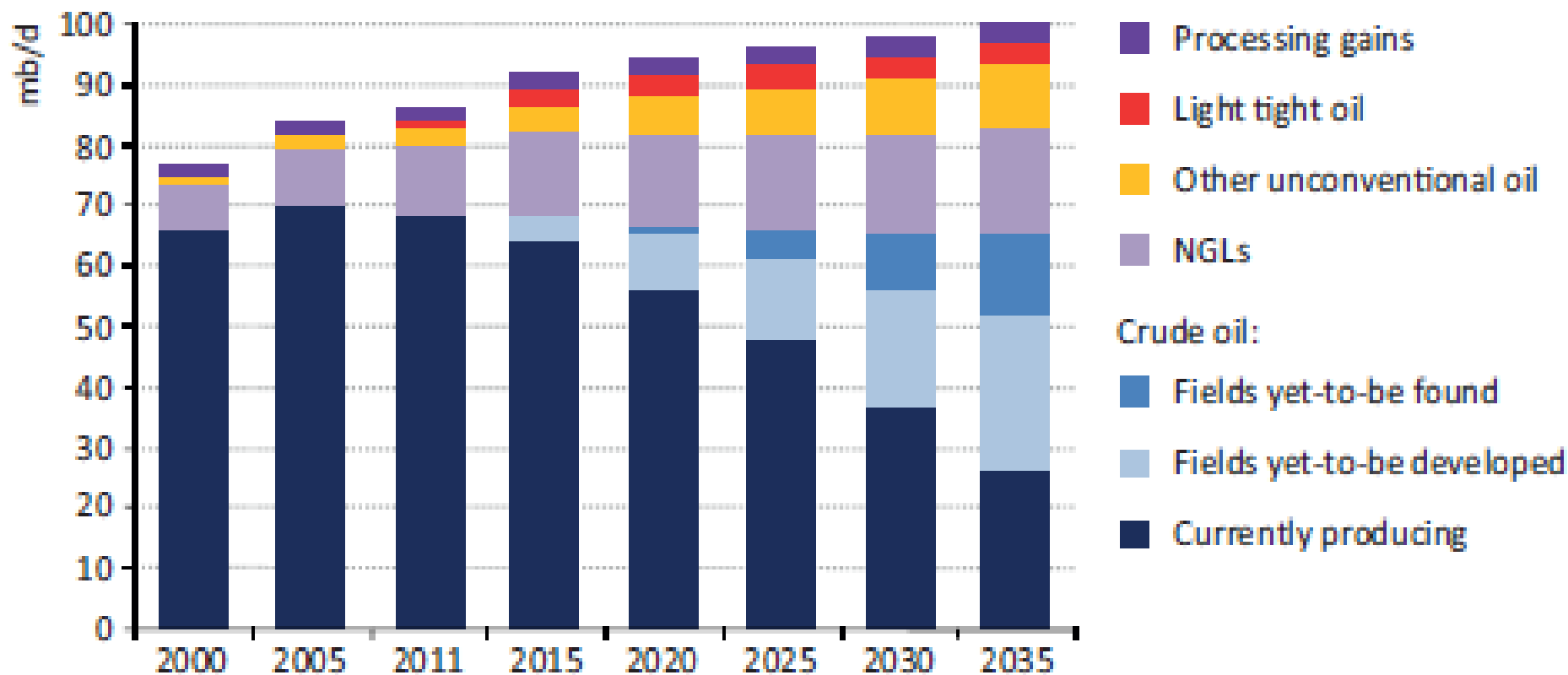


Source: IEA World Energy Outlook 2012, New Policies Scenario



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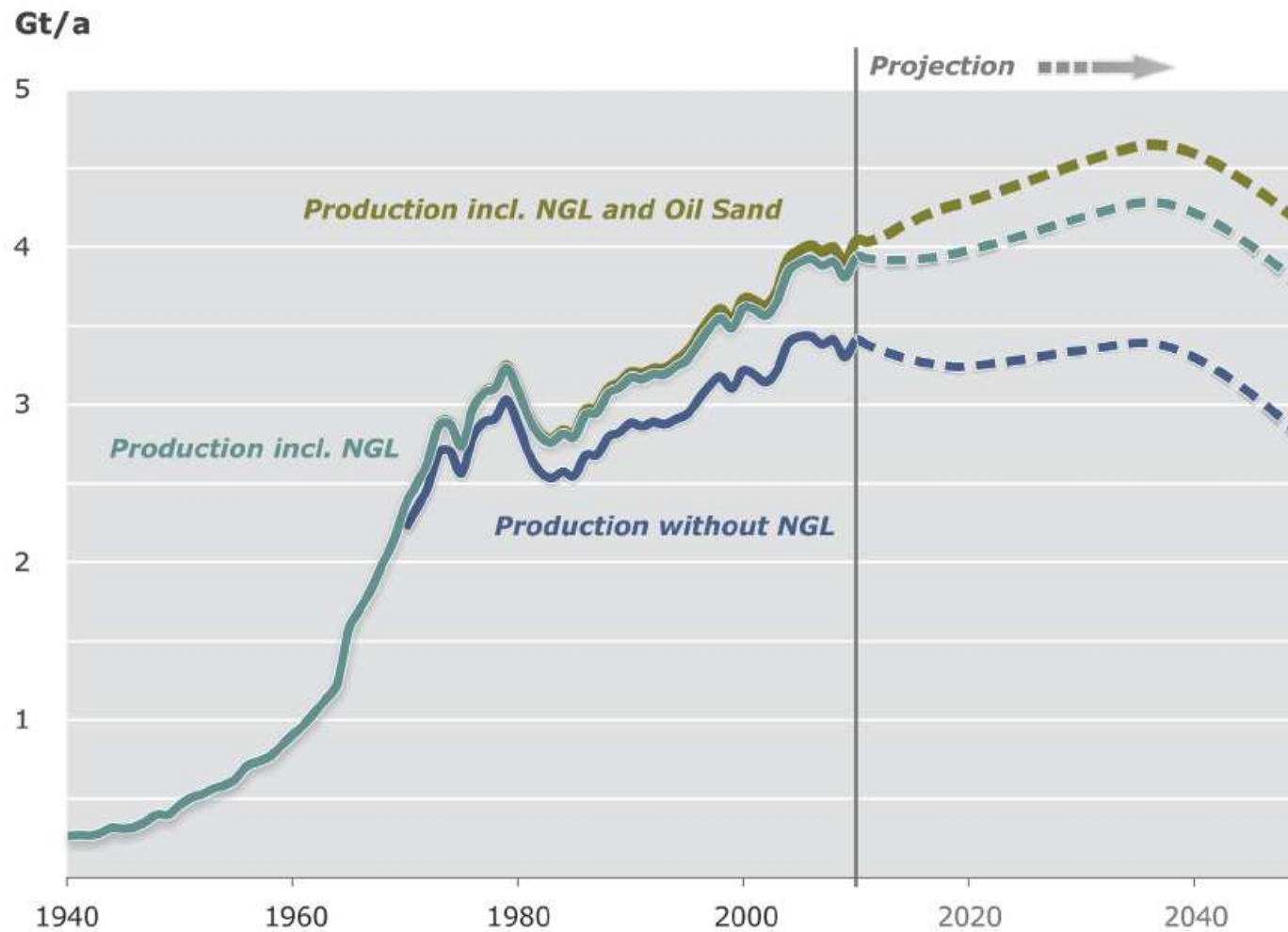
World oil supply according to the IEA World Energy Outlook 2012



Source: IEA World Energy Outlook 2012, New Policies Scenario

Energy

Another source



Source: Reserves, Resources and Availability of Energy Resources – Deutsche Rohstoffagentur (February 2012)

Is peak oil disproved?

Oil is a finite resource so at some point in time its production will peak.

Latest analyses imply that peak oil is not imminent

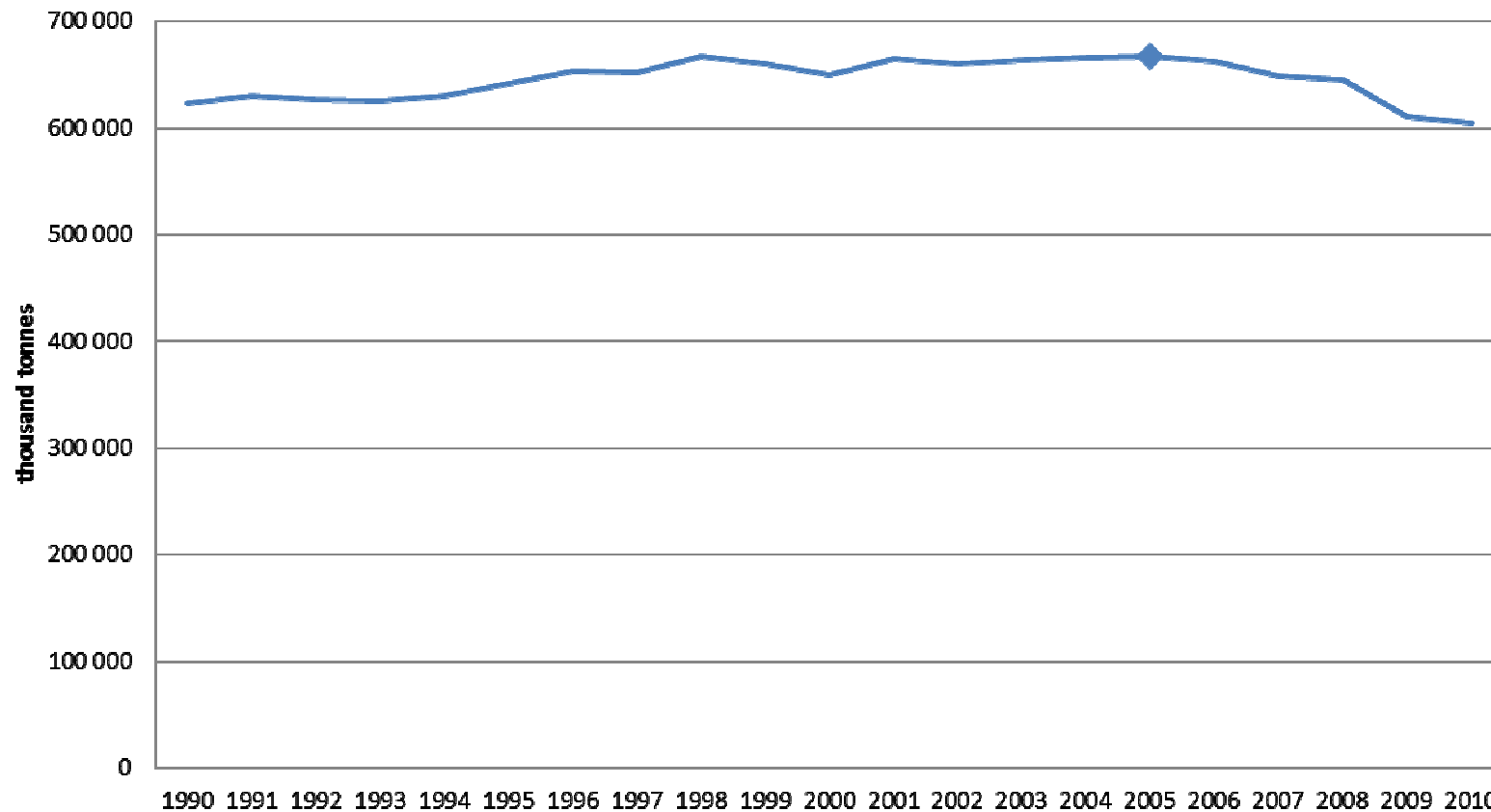
- **IEA: "The world's remaining resources of oil are not a limiting factor in meeting projected demand to 2035"**
- **DEFA: "Global oil production could be boosted until around 2036"**

But:

- **Uncertainties remain**
- **Huge investment needs**
- **"Above-ground" risks**

EU oil demand already peaked in 2005

Gross inland consumption of petroleum products



Current trends in oil use in the EU

Inter-fuel substitution

- **Helped by high oil prices**
- **Directive on the promotion of the use of energy from renewable sources**

Efficiency gains

- **Helped by high oil prices**
- **Energy efficiency directive**
- **Emissions targets for new vehicles**

Shift from oil-intensive industries towards services

Saturation effects, changes in consumer behaviour

Economic downturn

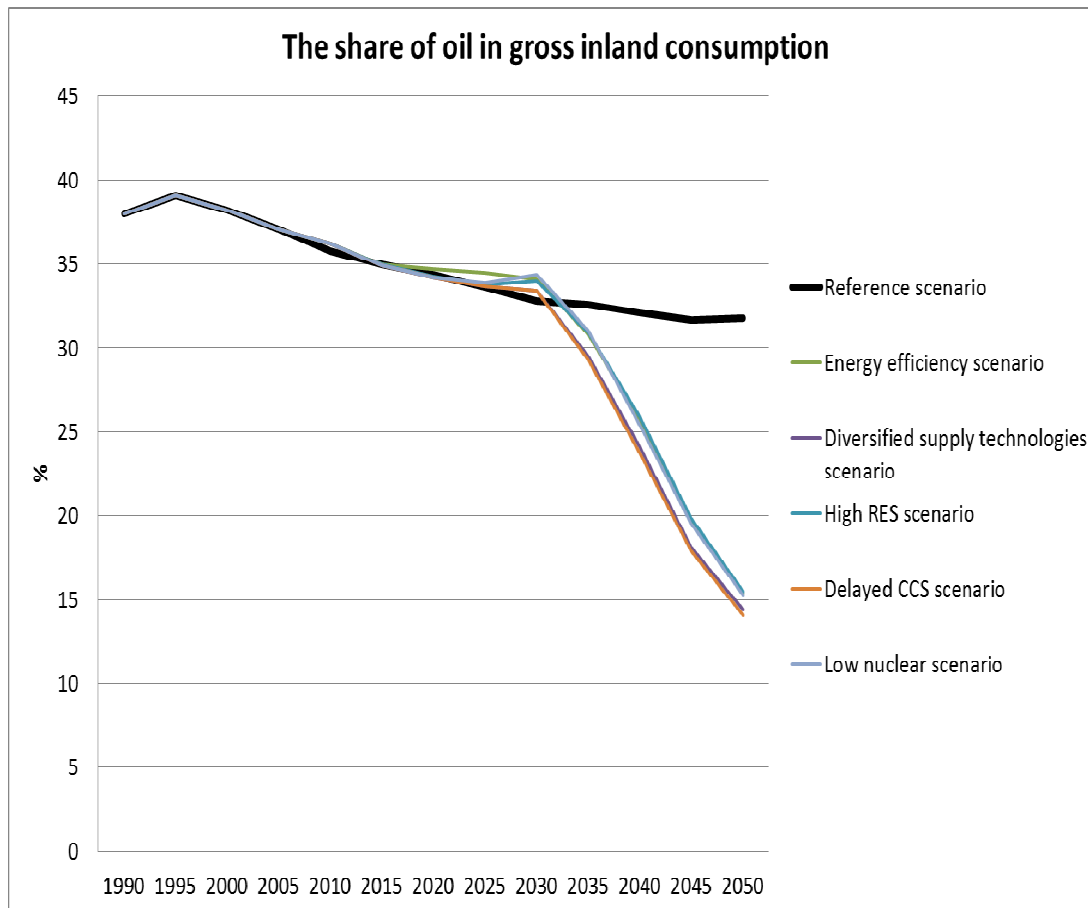
Another reason to decrease oil use: climate change

Energy Roadmap 2050

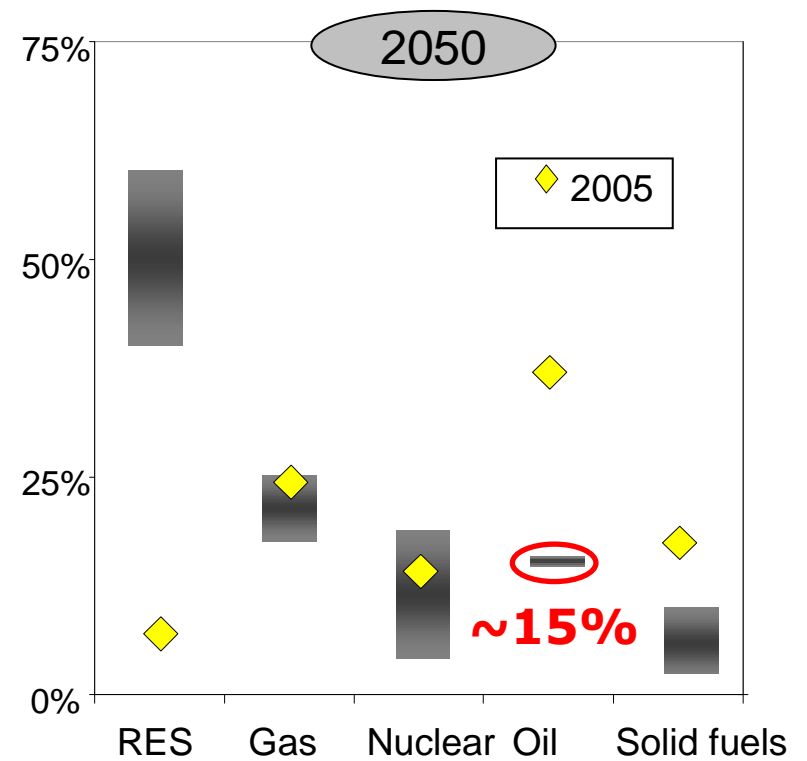
- **Analysis of possible pathways towards a low carbon energy system**
cutting emissions by at least 80% by 2050
- **Various decarbonisation scenarios**
with different energy mixes
- **Decarbonisation of the energy system is technically and economically feasible**
- **Energy Efficiency and renewable energy are critical**
- **Electricity will play a greater role**

Energy Roadmap 2050

Oil decreases significantly under all scenarios



Fuel ranges (% of primary energy consumption) in the decarbonisation scenarios





Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system

A comprehensive strategy for a competitive transport system that will

- **increase mobility, fuel growth and employment**
- **reduce Europe's dependence on imported oil**
- **cut carbon emissions in transport by 60% by 2050**

Key goals by 2050:

- **In cities: no more conventionally-fuelled cars**
- **Medium distance: a 50% shift of intercity passenger and freight journeys from road to rail and water**
- **Long distance: 40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions**



**Thank you
for your attention**