

Energy and climate outlook: the main challenges

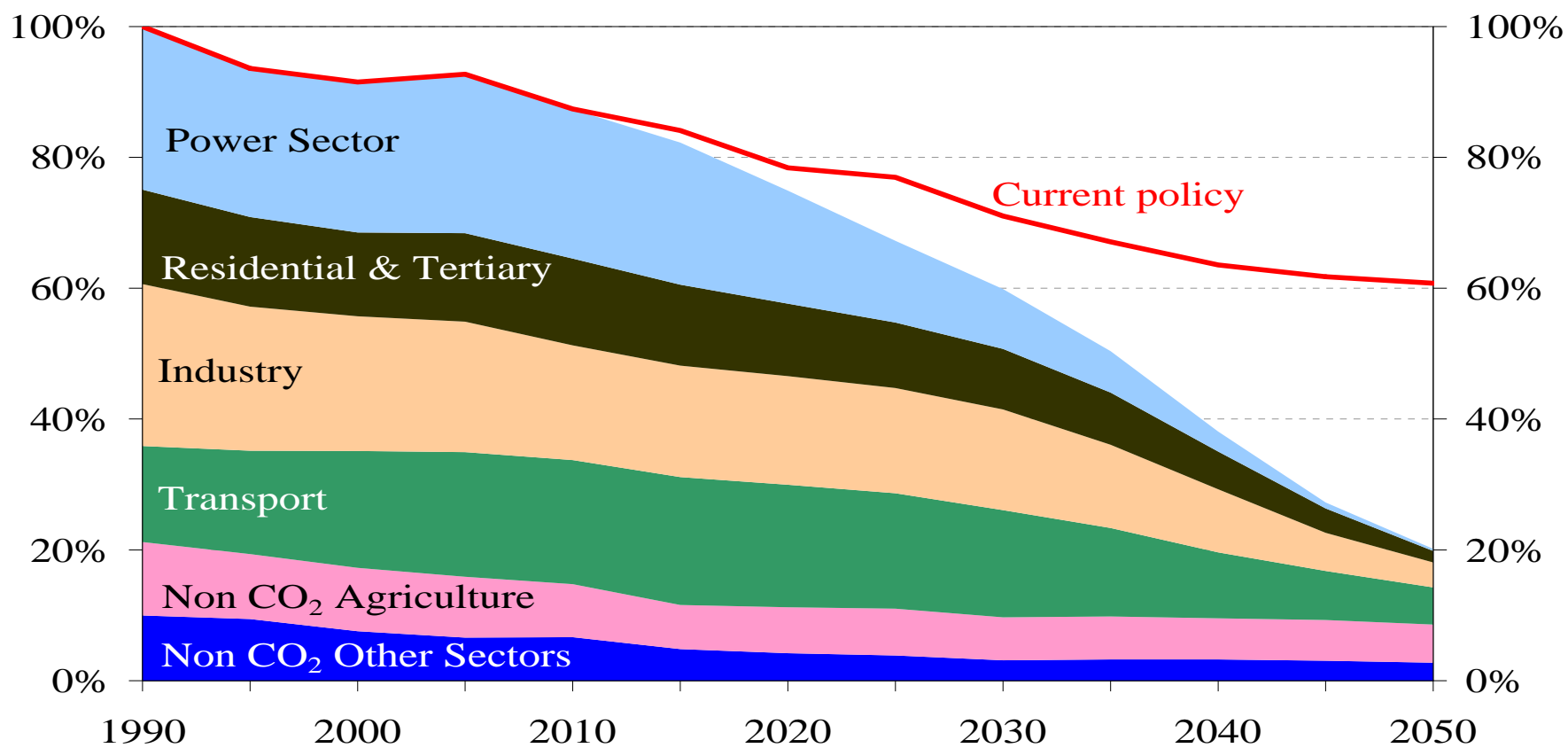
Oslo 21 February 2013,

János Herman,

Ambassador of the European Union to Norway



● Target: Low carbon-economy by 2050





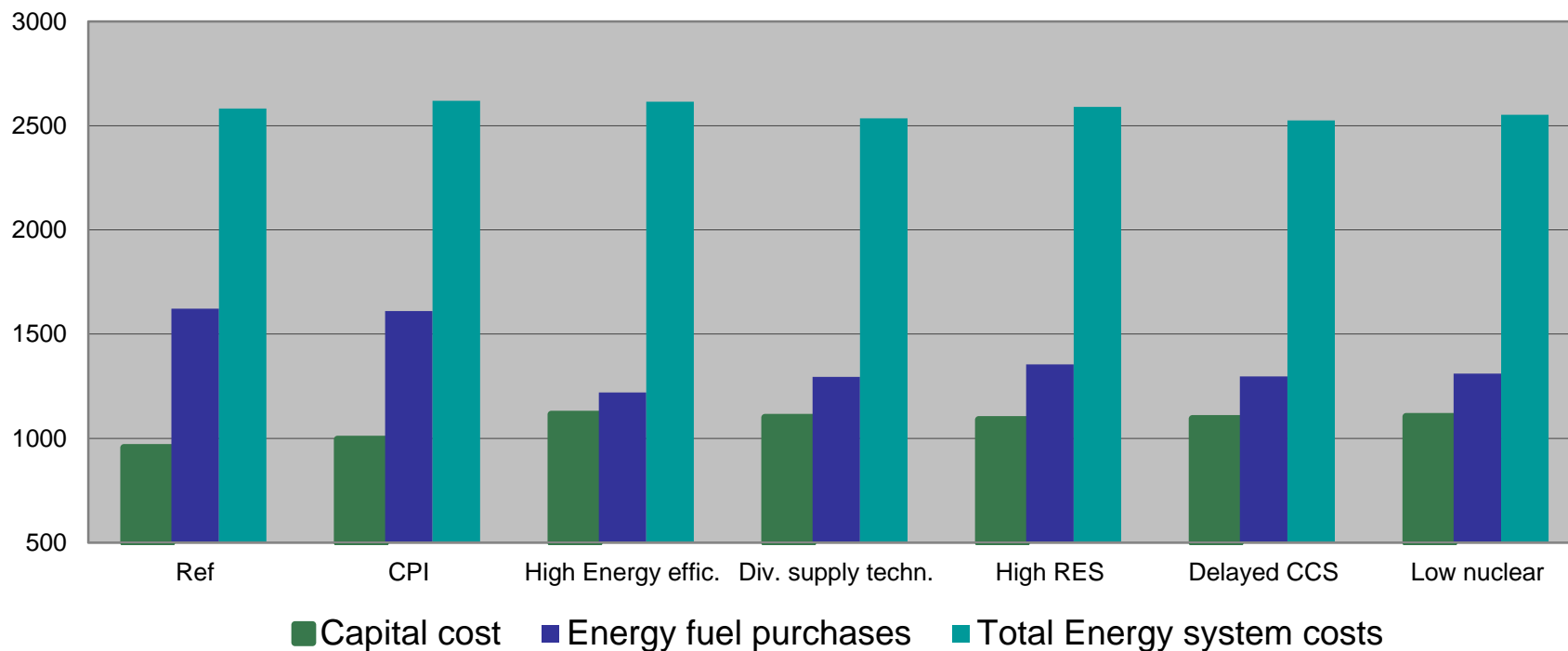
● Energy Roadmap 2050: a long-term policy framework

Aim of the Energy Roadmap

- Give more certainty to governments and investors
- Explore routes towards a low-carbon energy system by 2050 which improve competitiveness and security of supply
- Basis for developing the 2030 policy framework and concrete milestones

● Energy Roadmap 2050: Decarbonisation is economically feasible

Average annual energy capital and fuel costs from 2011 to 2050 for each scenario

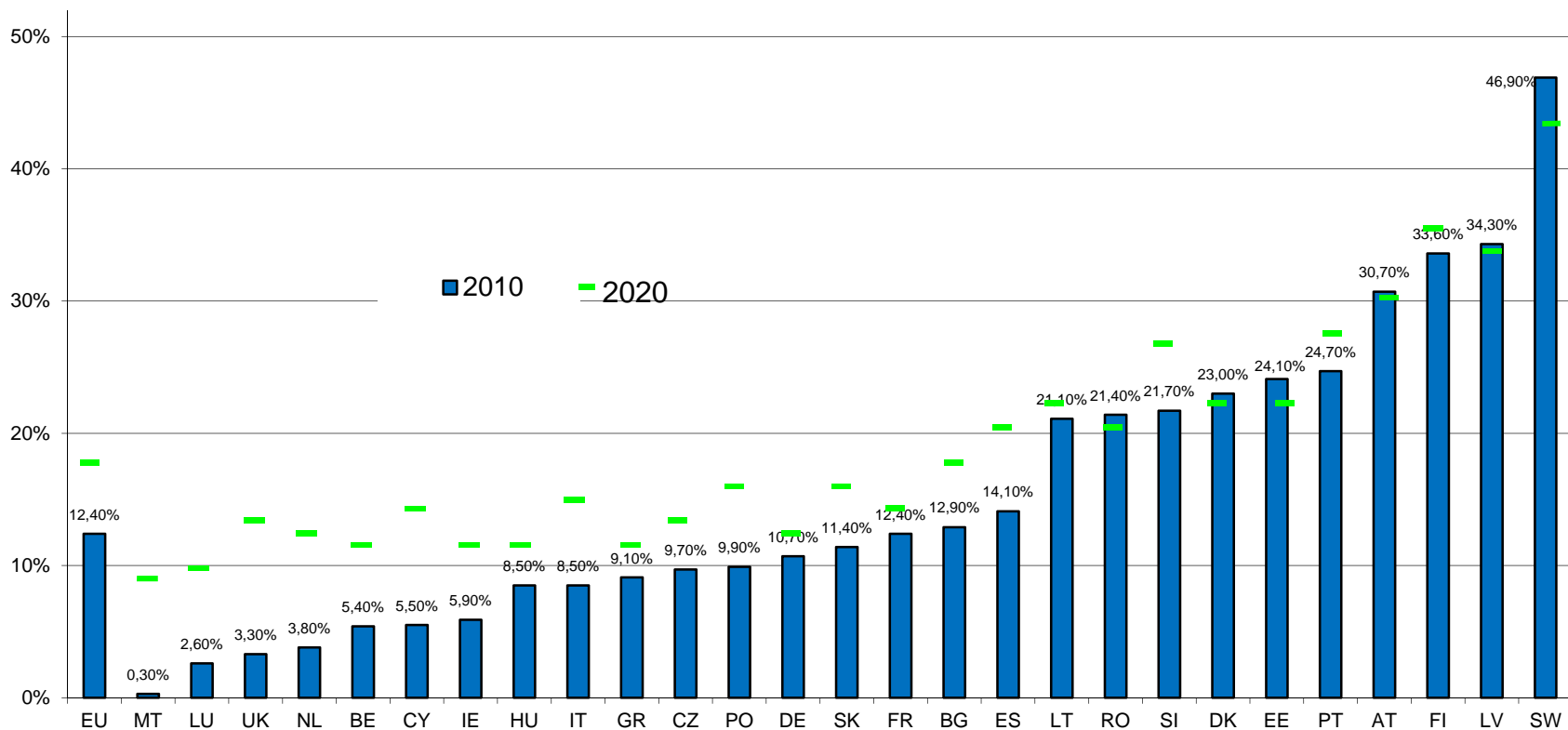


In all decarbonisation scenarios, total costs are similar to current policies.



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● High share of Renewables – significant challenges ahead



Energy

● Natural gas – a transition fuel for decarbonisation



Less CO₂ intensive fuel



Gas-to-power is a suitable backup solution for Renewables



Gas-fired power stations support the integration of Renewables

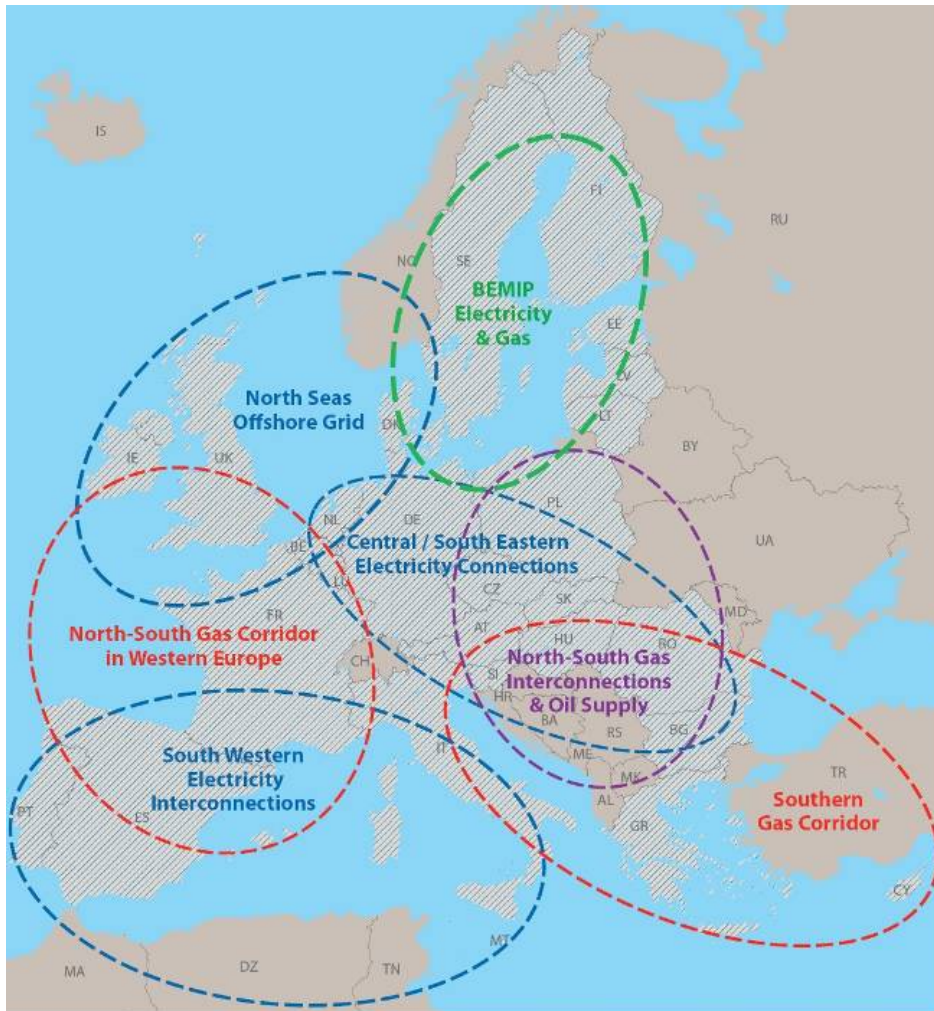
● Natural gas with carbon capture & storage (CCS)

Even greater potential for natural gas with carbon capture & storage

Commission support for CCS demonstration projects

Norway an important partner in development of CCS technology

● Internal energy market and infrastructure



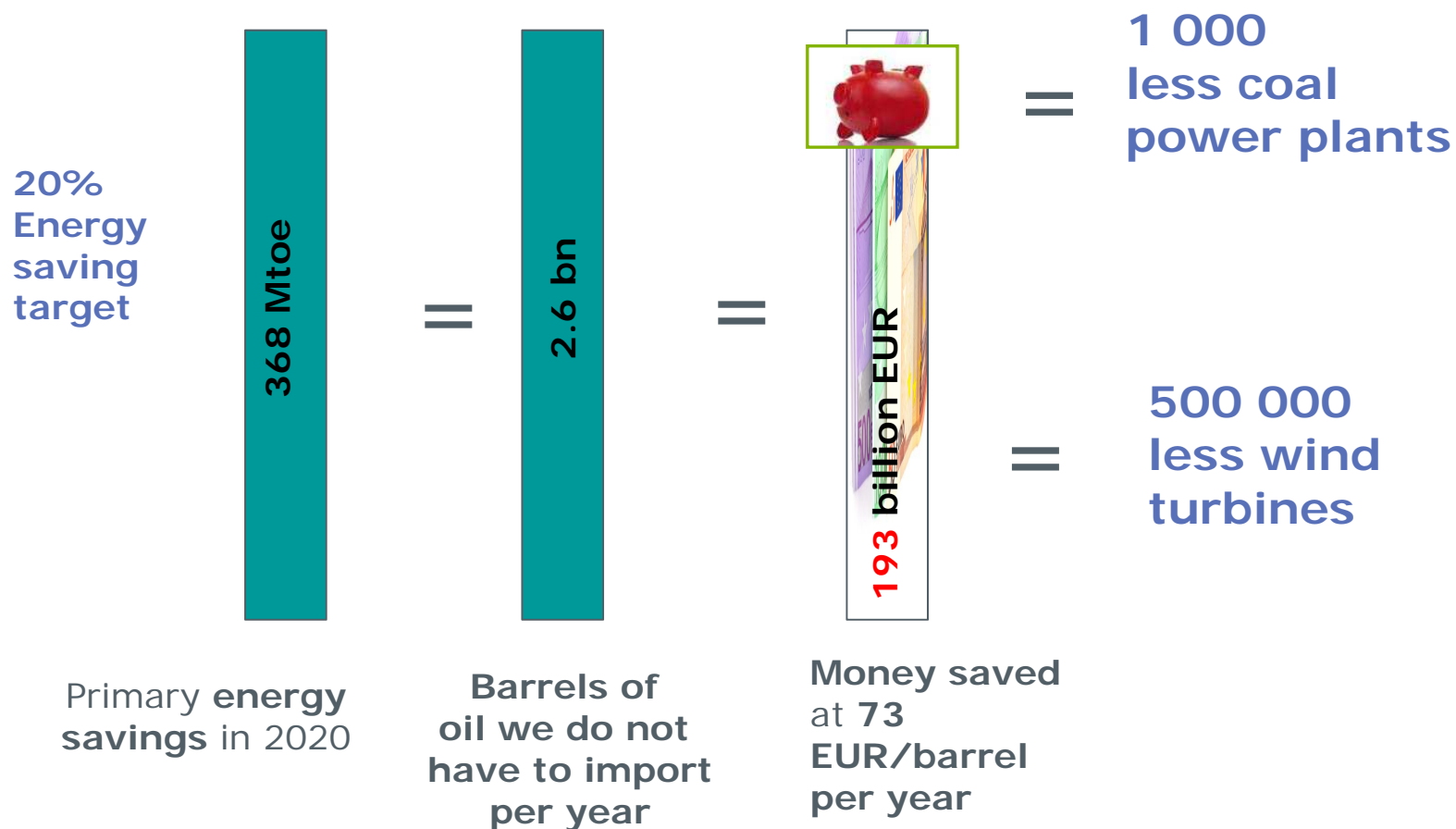
Priorities beyond 2020

- - - Gas
- - - Electricity
- - - Electricity and gas
- - - Oil and gas
- Smart Grids for Electricity in the EU



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● Energy efficiency: benefits are enormous



● Conclusion and outlook:

- ❑ 2030 Policy framework
- ❑ Completion of the Internal Energy Market
- ❑ Framework for national interventions in the energy sector