Global energy reserves and resources: no future without coal

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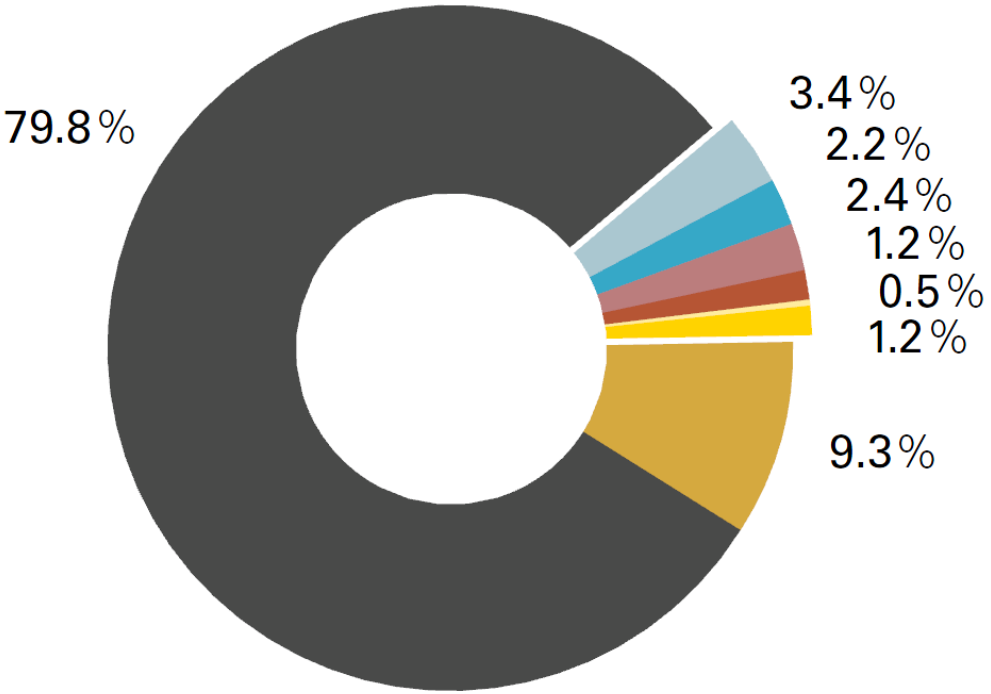
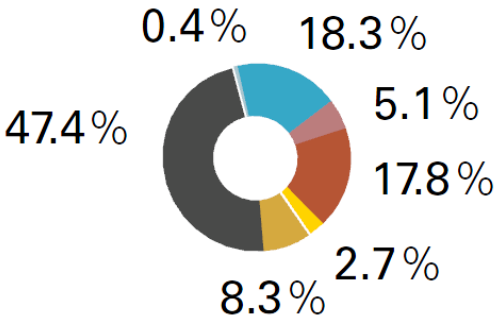
resources:

18 156 billion tonnes



reserves:

1 346 billion tonnes



total energy production:

16.9 billion tonnes

- Hard coal
- Lignite
- Uranium
- Thorium
- Oil
- Unconv. oil
- Natural gas
- Unconv. gas

Source: Euracoal 2013, BGR 2013

World coal production and consumption 2013

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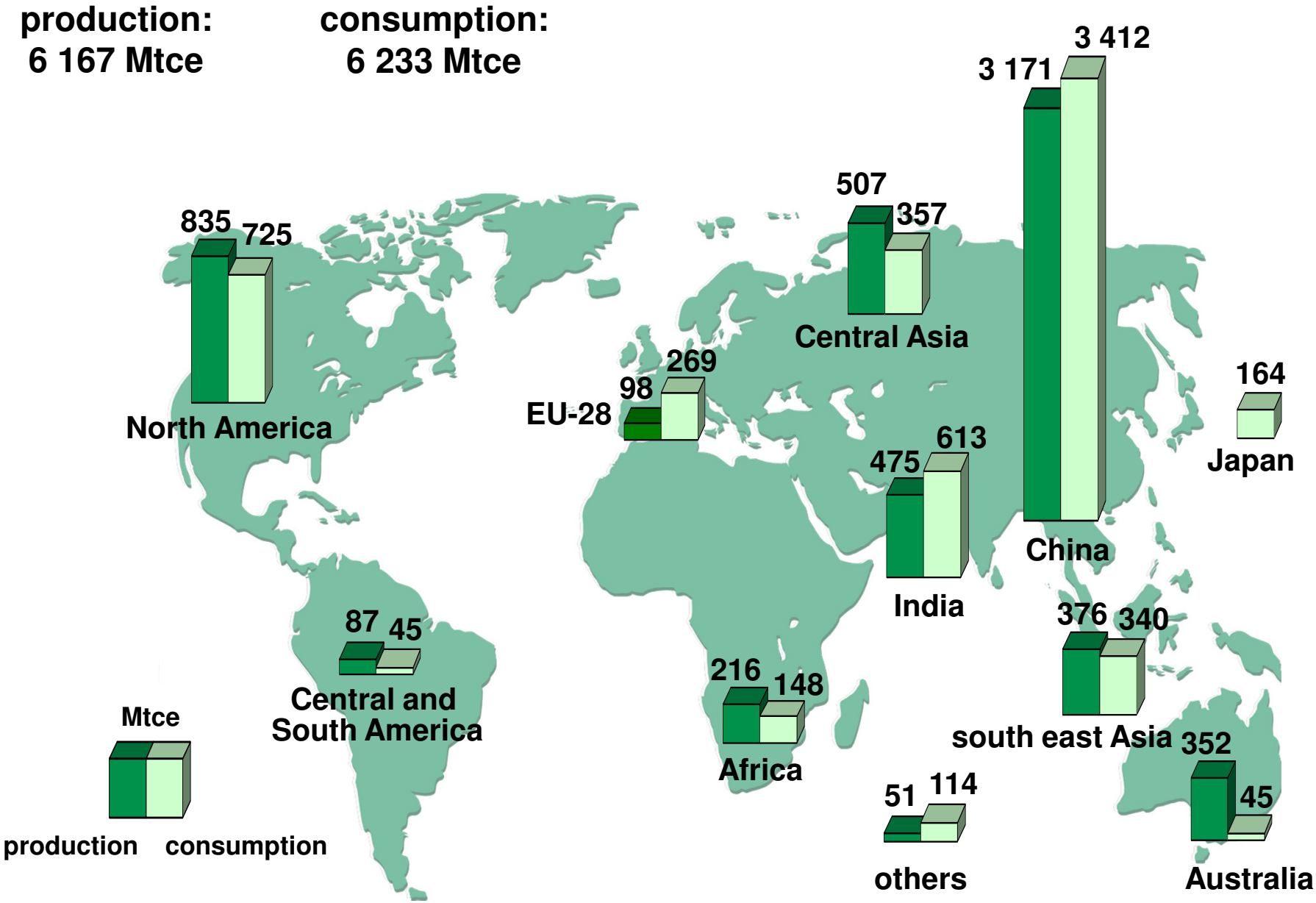

Sources: VDKi / IEA / BP / EIA / specific national statistics

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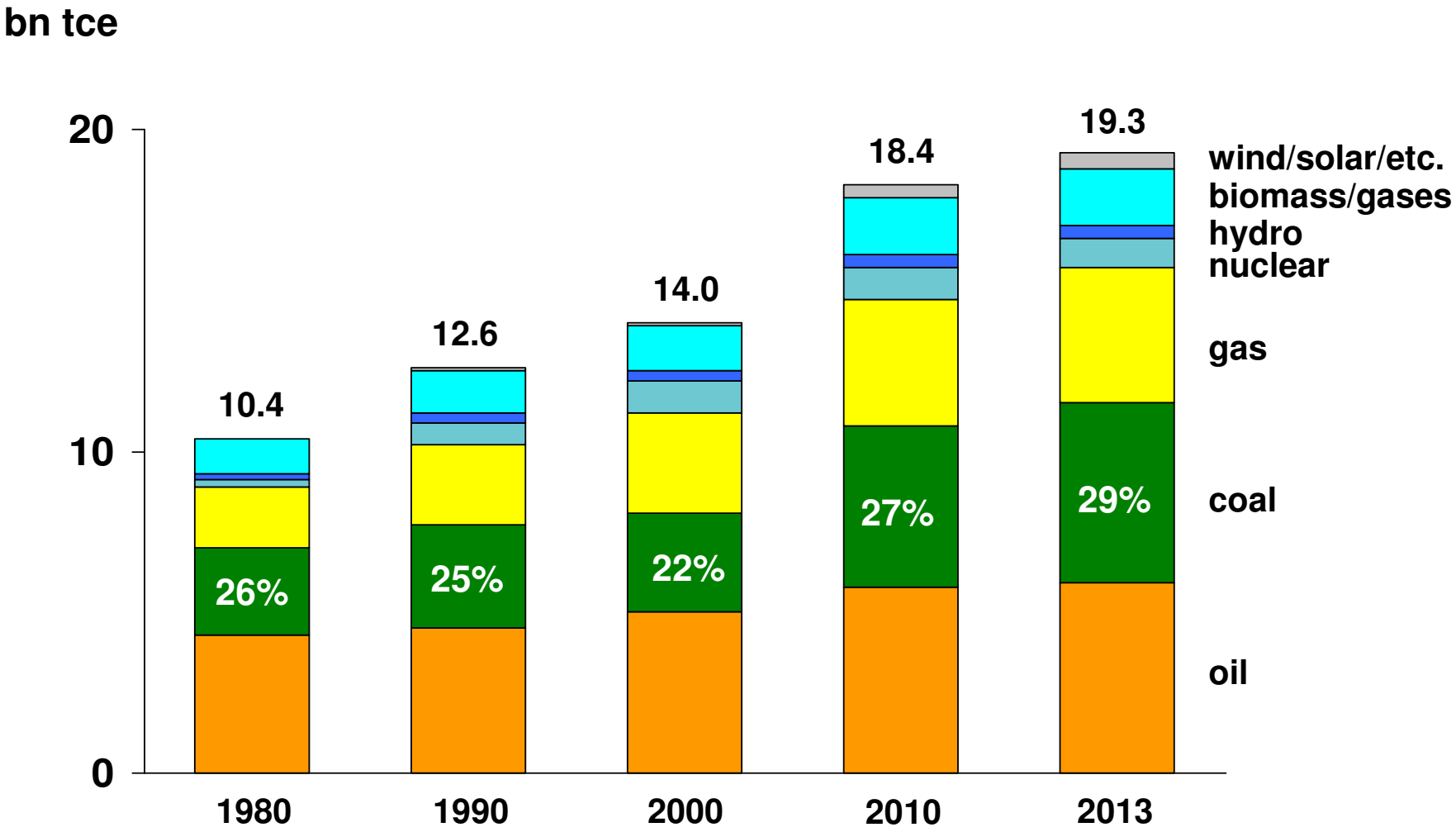
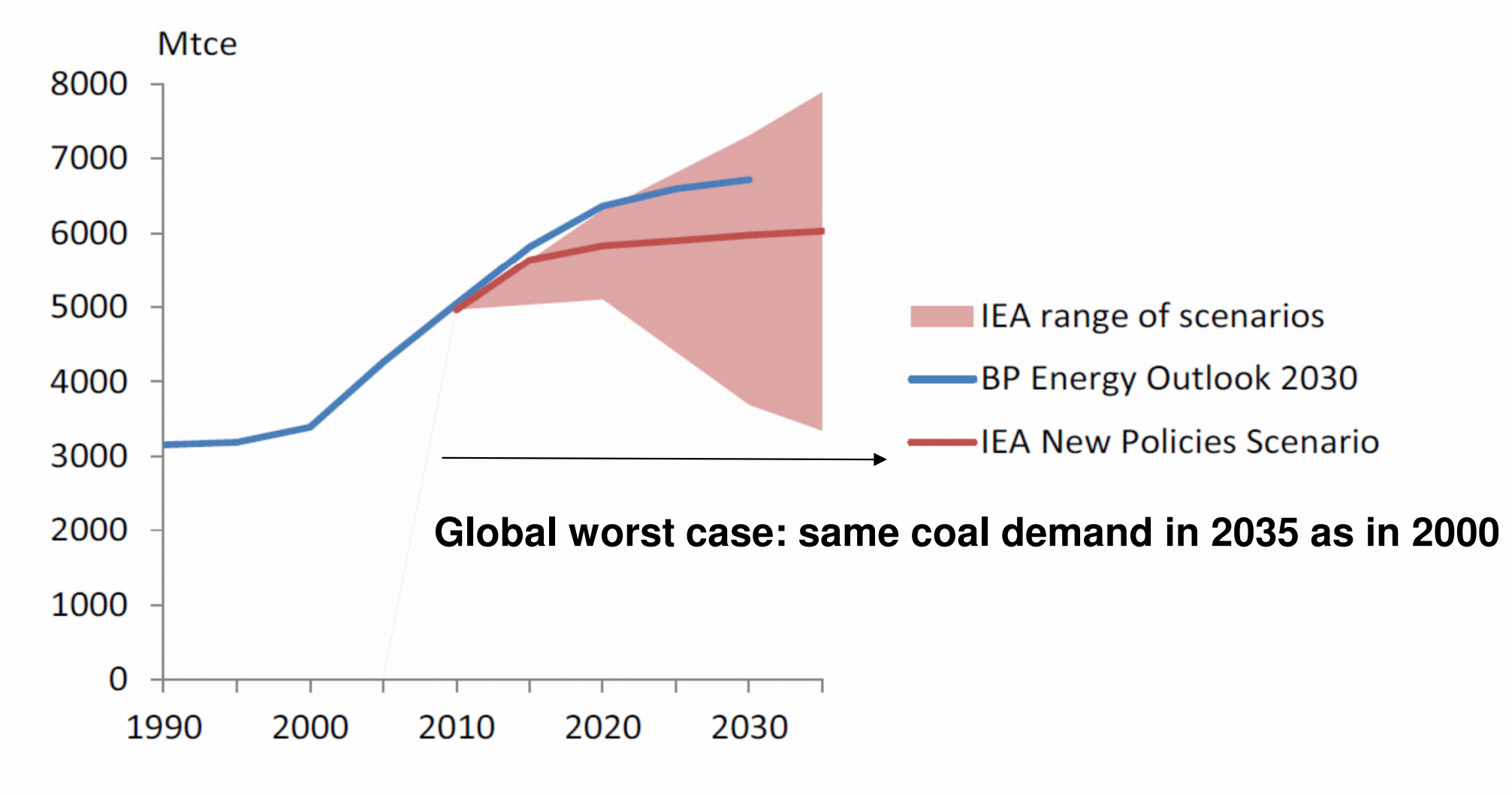
World primary energy consumption by energy source



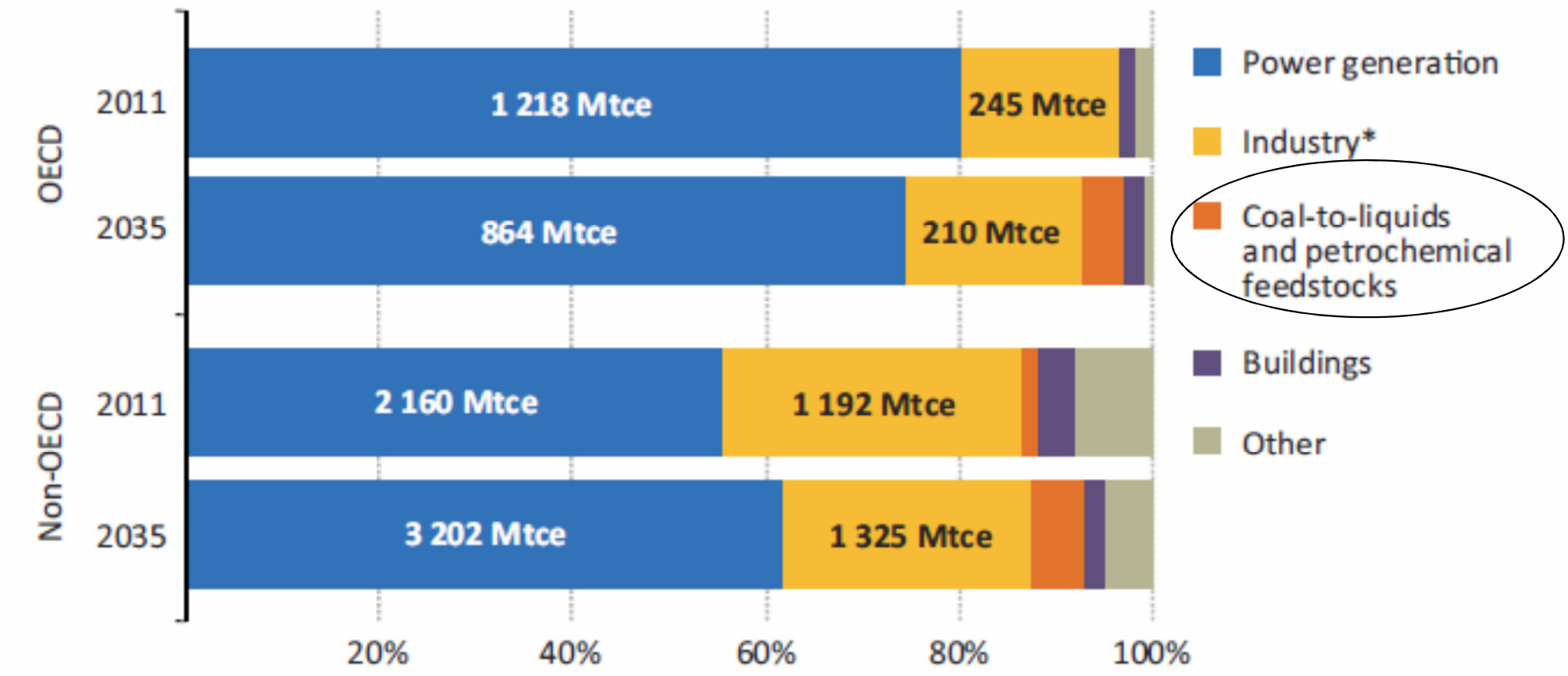
Source: World Energy Council Germany, 2014

Range of scenarios about the global future of coal demand: “Coal is here to stay for a long time” (IEA)



Sources: BP, 2013b; IEA, 2012

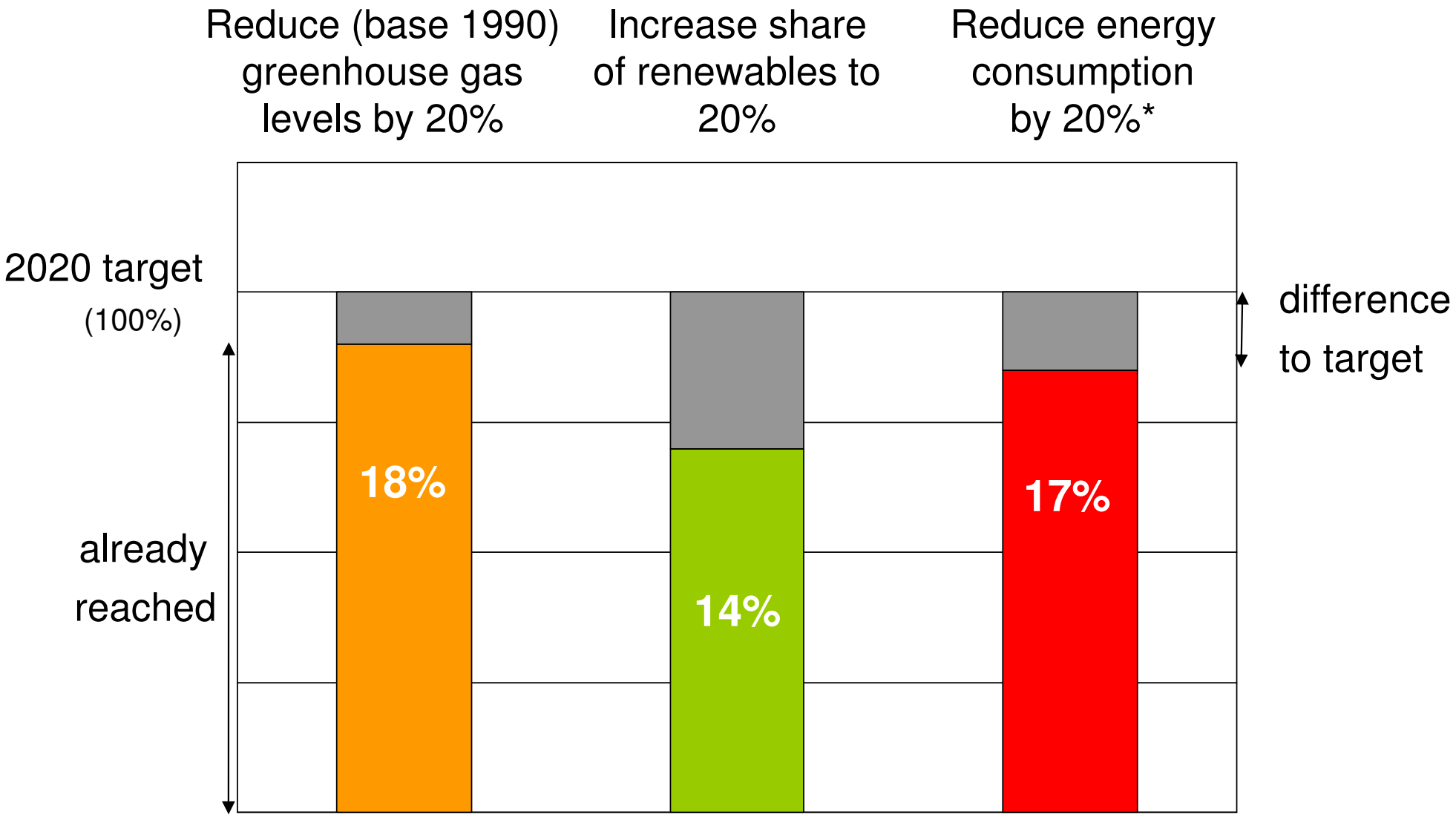
Coal demand by key sector in the New Policies Scenario
A global trend in direction of more coal-to-liquids



* includes own use and transformation in blast furnaces and coke ovens

Source: IEA WEO 2013 – Coal Market Outlook

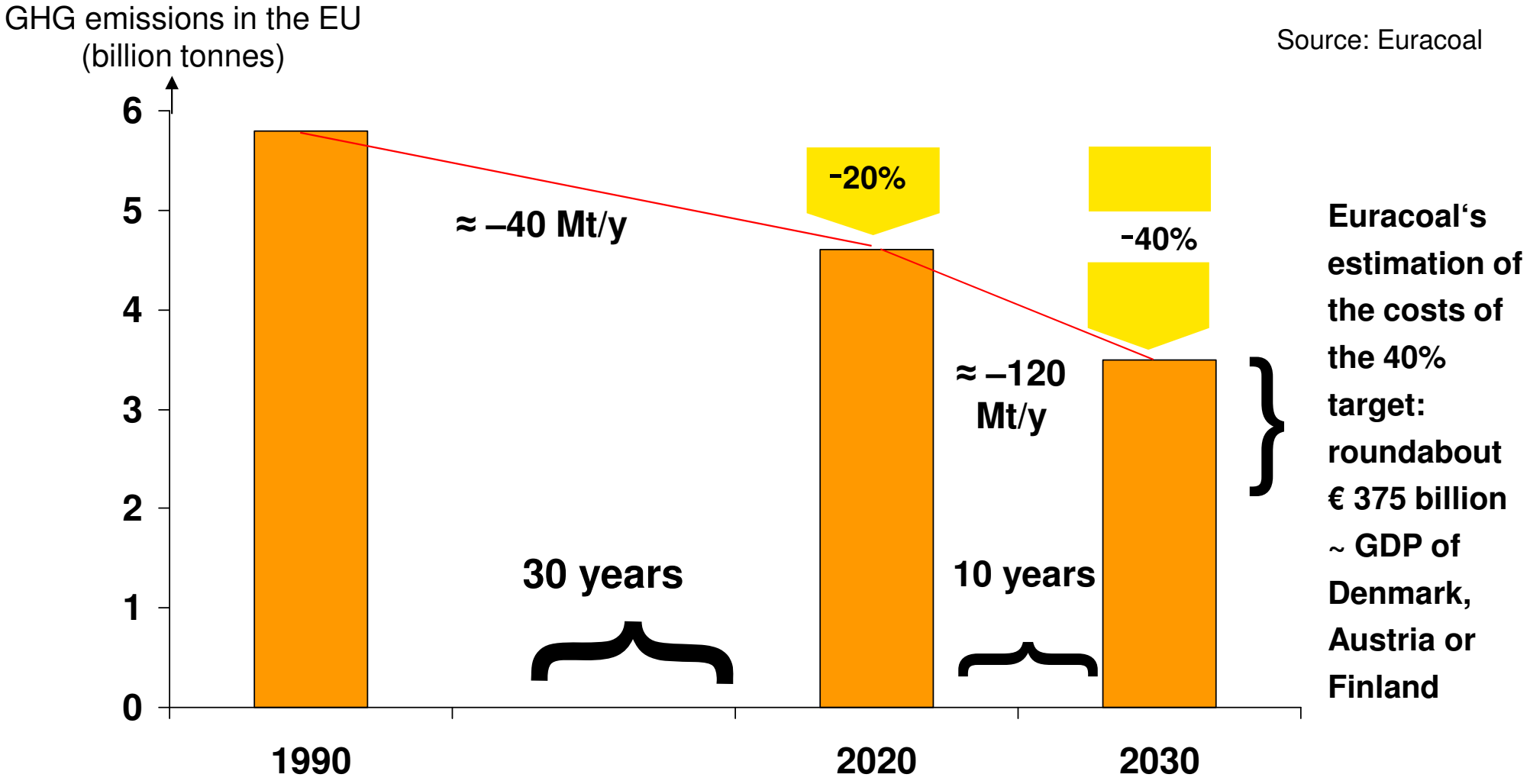
EU: “20-20-20" energy and climate targets for 2020: some parts left to be done



Sources: Euracoal, European Commission, Eurostat

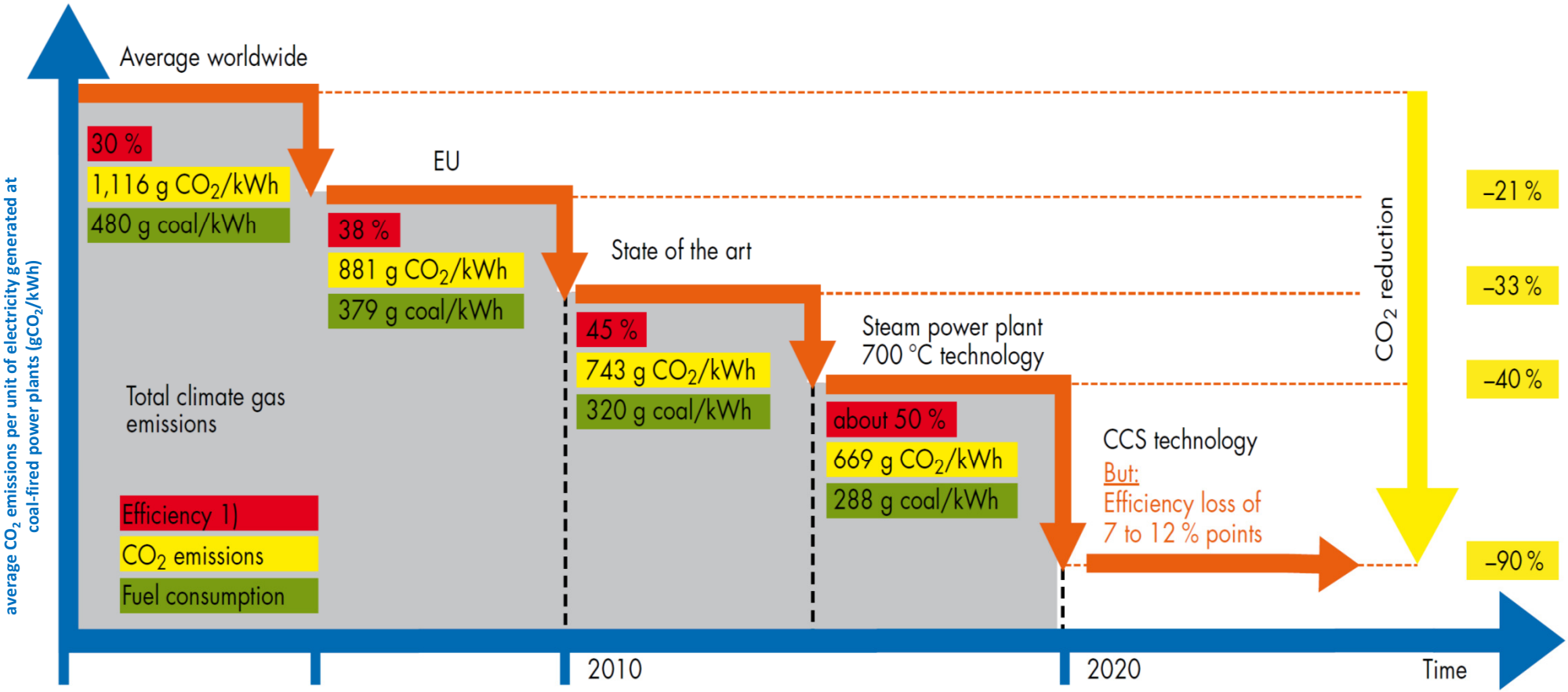
*reduction against *trend* 2005 to 2020

Reduction of GHG emissions in the EU until 2020 and now until 2030: two stages – two speeds

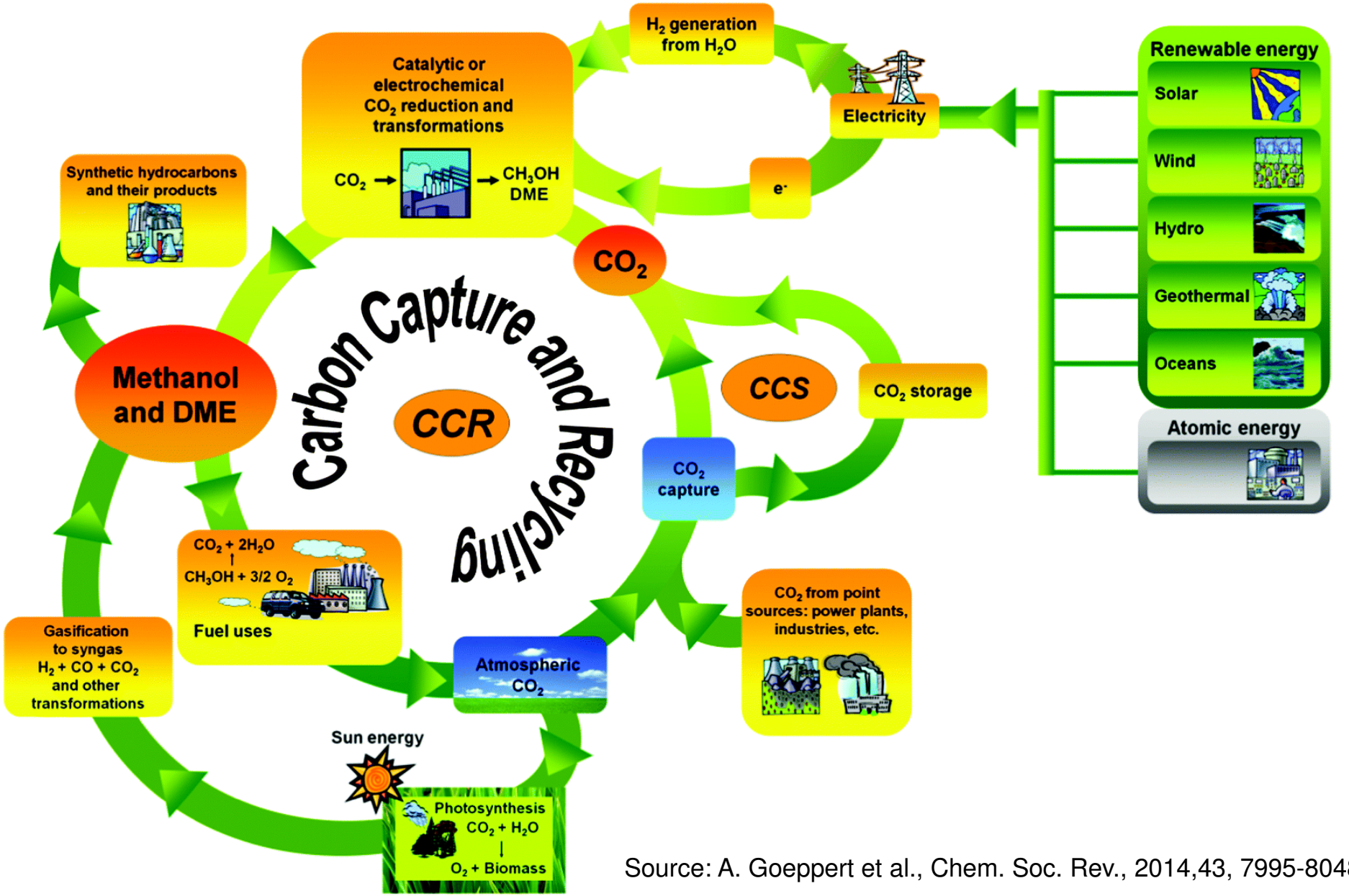


For the EU, this means reducing GHGs from 5.8 Gt/y in 1990, to some 4.6 Gt/y in 2020, and to some 3,5 Gt/y in 2030.

Euracoal: A (three-step) Strategy for Clean Coal could deliver a big contribution to the EU targets

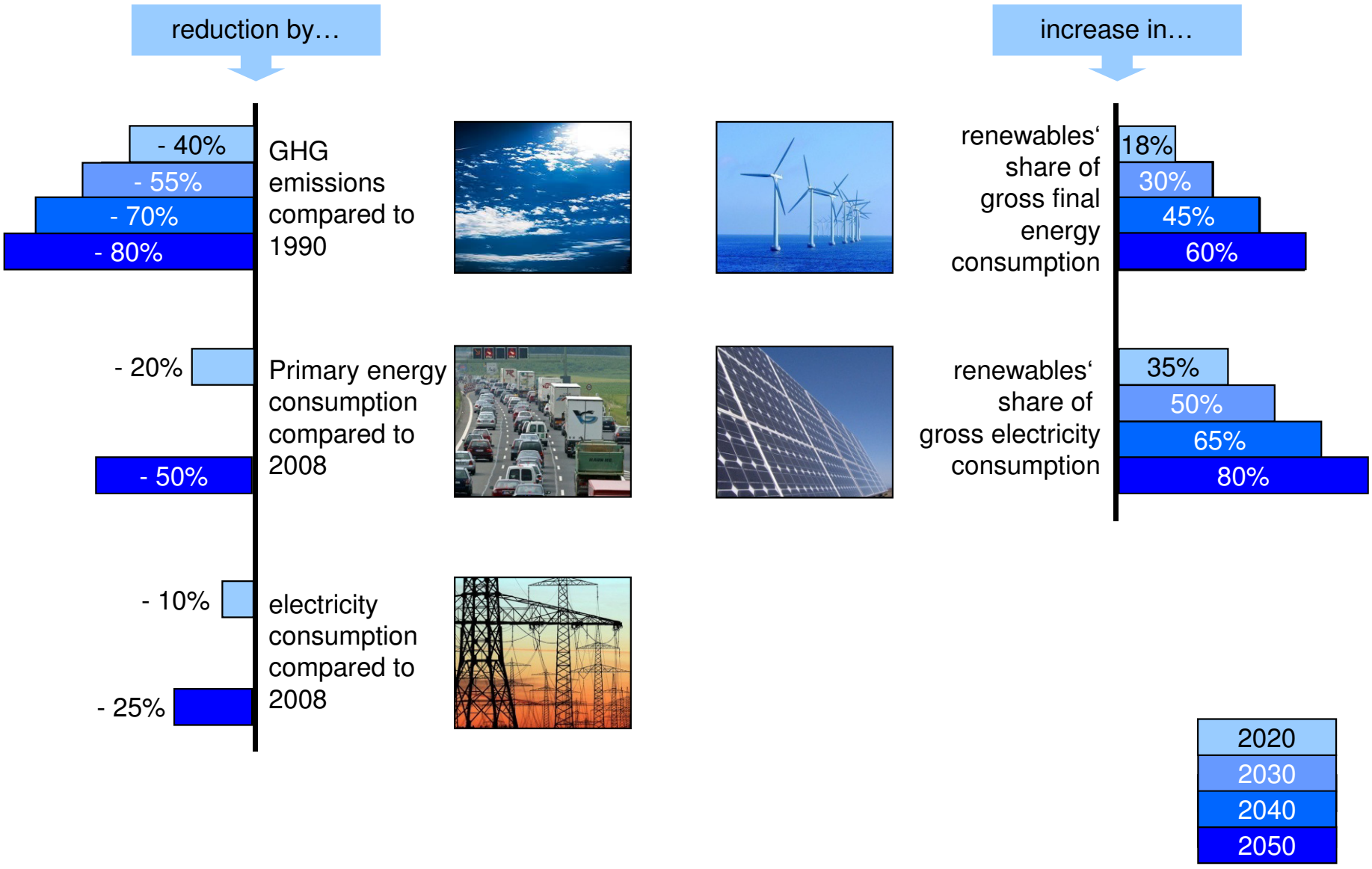


Recycling of carbon dioxide to methanol and derived products – closing the loop

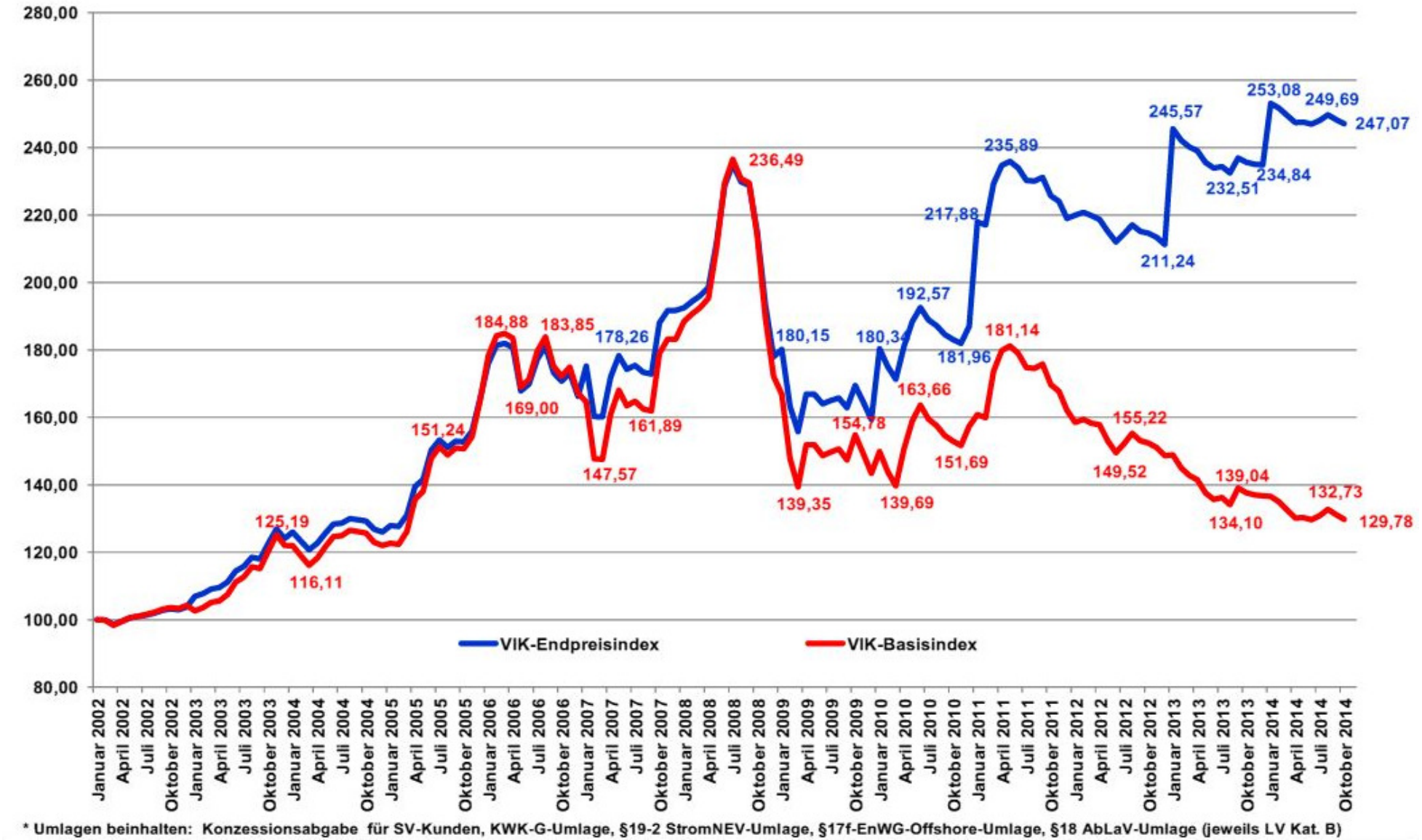


Source: A. Goeppert et al., Chem. Soc. Rev., 2014,43, 7995-8048

The German Energy Plan: National targets and timeframes



VIK electricity price index



Grafik: VIK, 11/2014

Power station capacity and electricity production in Germany 2013

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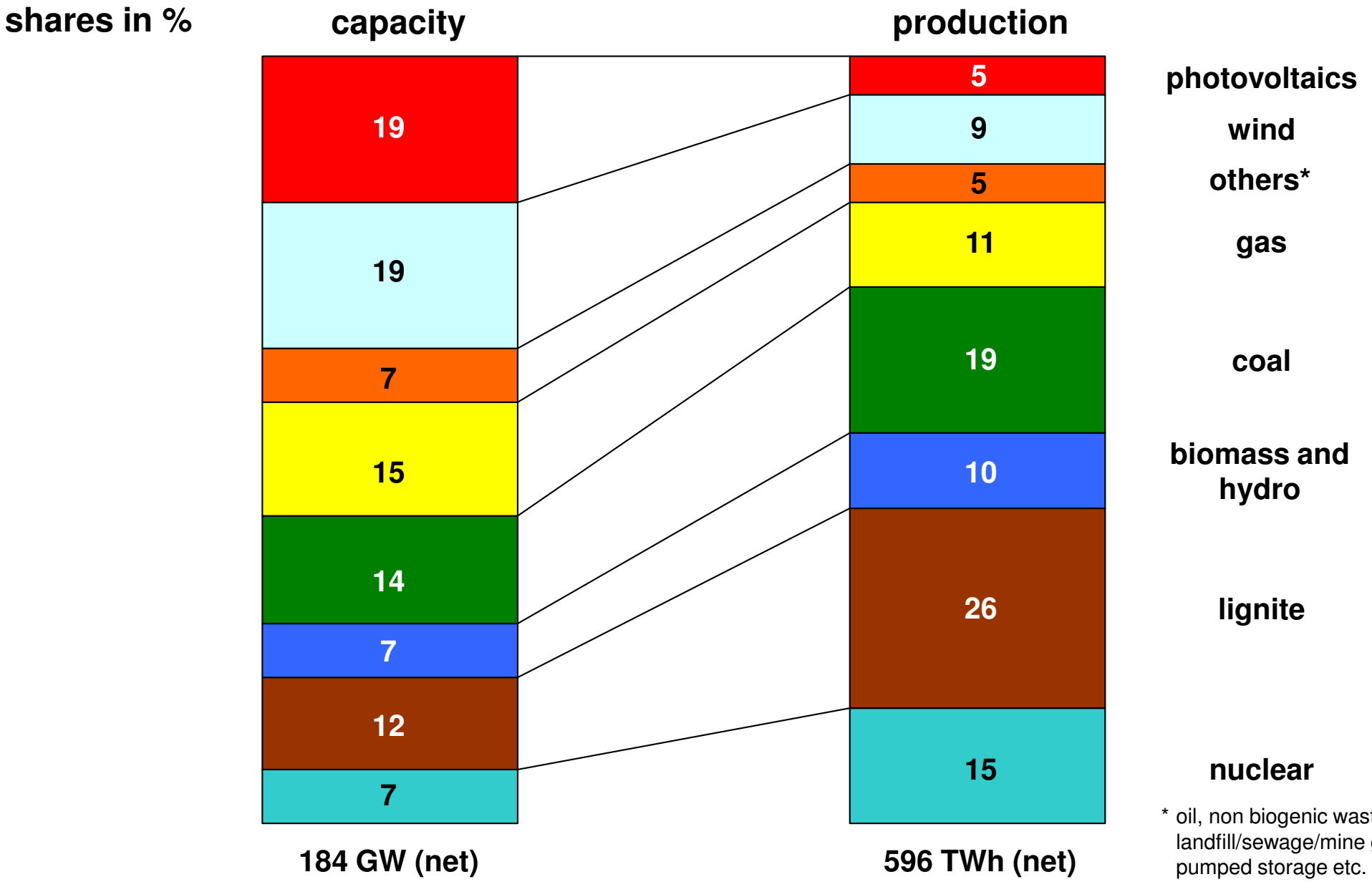

* oil, non biogenic waste, landfill/sewage/mine gas , pumped storage etc.

Source: BDEW, 8/2014

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Contributions to the reduction in energy-related CO_2 emissions to 2020 acc. to Energy Plan targets

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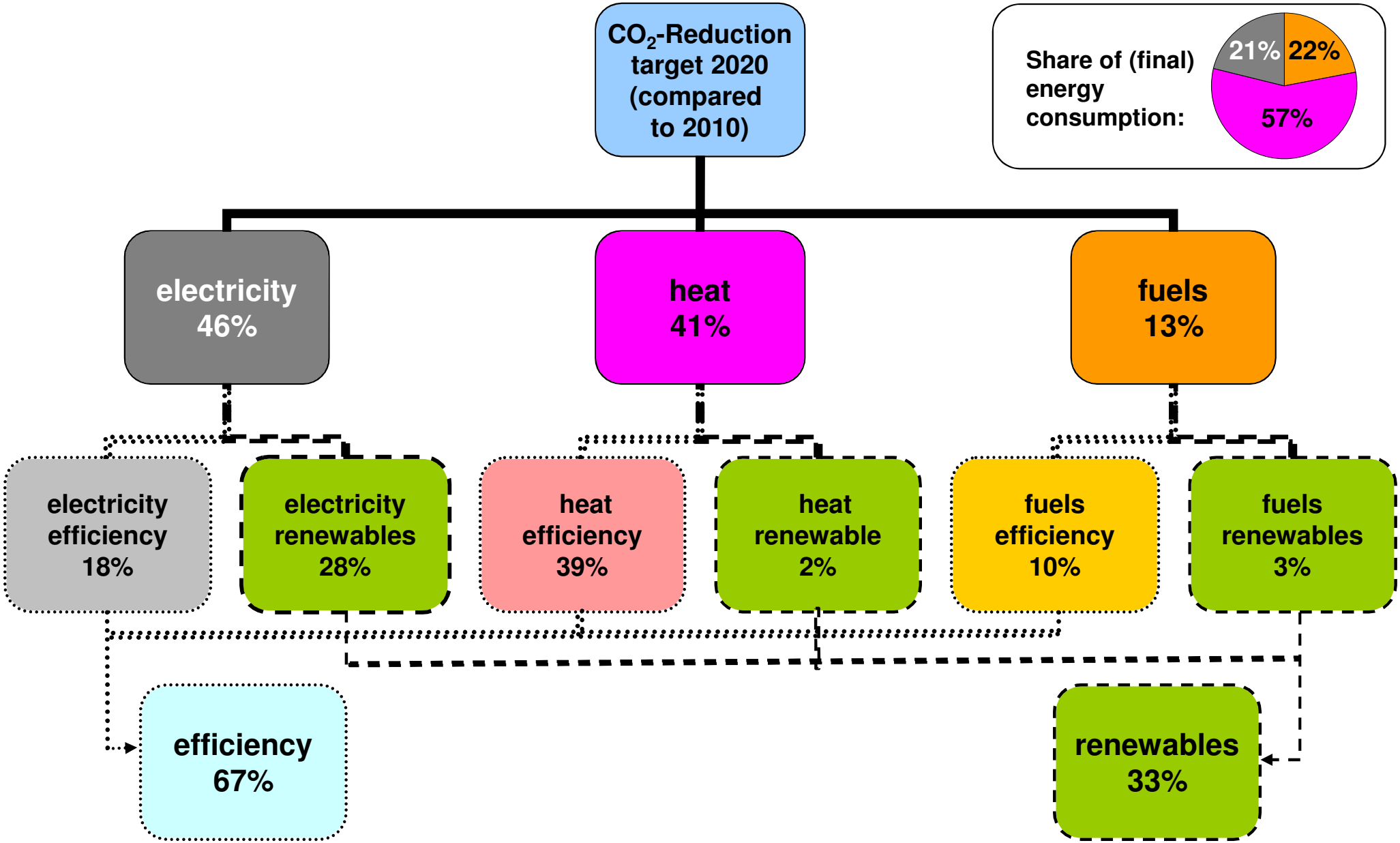

Source: statement from Expert Commission on the second Monitoring Report 'Energy of the Future'

GVSt 7/2014

The ibi alliance