

EURACOAL

European Association
for Coal and Lignite



Prospects for European Domestic Hard Coal Production Post Subsidies

Coaltrans Switzerland
Coal Pricing & Trading in Europe

1-2 March 2012
Grand Hotel Kempinski, Geneva

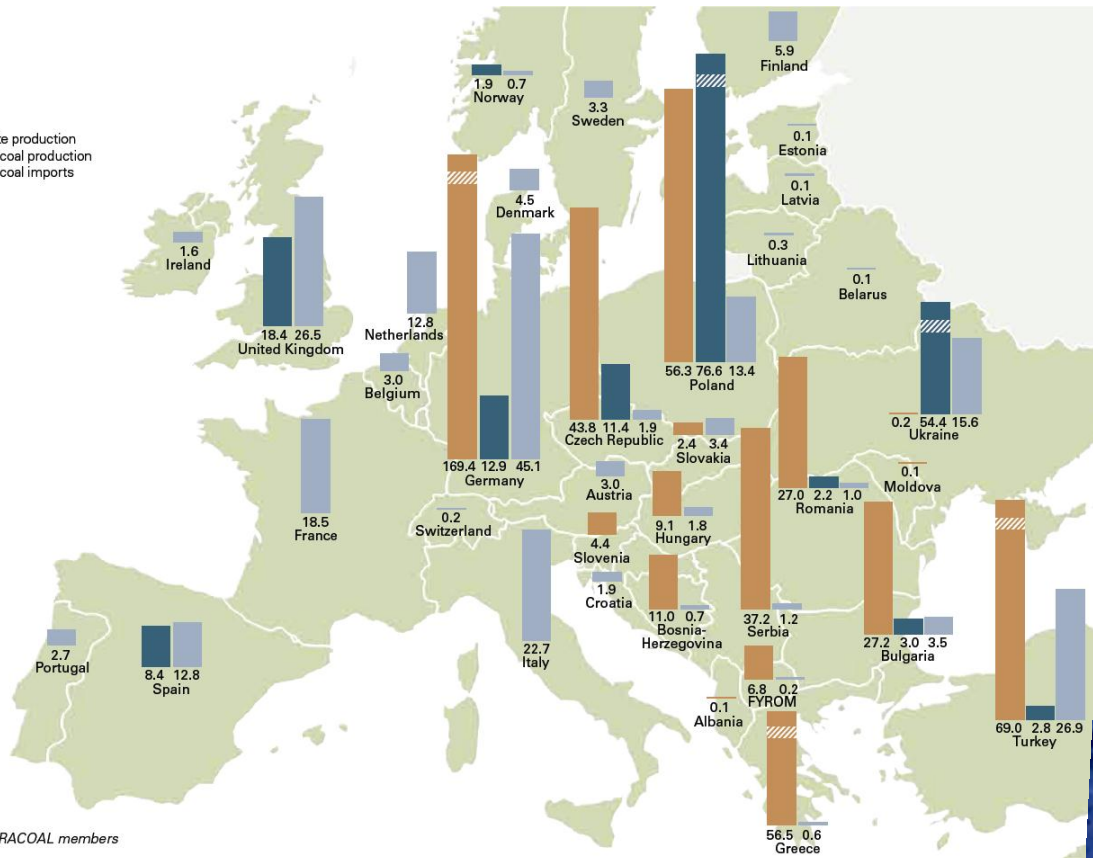
Brian RICKETTS
Secretary-General, EURACOAL

EURACOAL: 35 members from 20 countries

- COALPRO - Confederation of UK Coal Producers (GBR)
- DEBRIV - Deutscher Braunkohlen-Industrie-Verein (DEU)
- GVSt - Gesamtverband Steinkohle (DEU)
- MMI - Mini Maritza Istok (BGR)
- PPC - Public Power Corporation (GRC)
- PPWB - Confederation of the Polish Lignite Producers (POL)
- ZPWGK - Polish Hard Coal Employer's Association (POL)
- ENEL (ITA)
- ZSDNP - Czech Confederation of Coal and Oil Producers (CZE)
- APFCR - Coal Producers and Suppliers Association of Romania (ROU)
- BRGM - French Geological Service (FRA)
- CARBUNIÓN - Federation of Spanish Coal Producers (ESP)
- Coallmp - Association of UK Coal Importers (GBR)
- D.TEK (UKR)
- EPS - Electric Power Industry of Serbia (SRB)
- GIG - Central Mining Research Institute (POL)
- HBP - Hornonitrianske bane Prievidza (SVK)
- ISFTA – Institute for Solid Fuels Technology & Applications (GRC)
- Mátrai Kraftwerke (HUN)
- PATROMIN - Federation of the Romanian Mining Industry (ROU)
- Premogovnik Velenje (SVN)
- RMU Banovici D.D. (BIH)
- Swedish Coal Institute (SWE)
- TKI - Turkish Coal Enterprises (TUR)
- Ukrvuglerobotodavtsy - All-Ukrainian Coal Employer's Association (UKR)
- Vagledobiv Bobov dol EOOD (BGR)
- VDKI - Verein der Kohlenimporteure (DEU)
- Coaltrans Conferences Limited (GBR)
- EMAG (POL)
- Finnish Coal Info (FIN)
- Golder Associates (GBR)
- Geocontrol (ESP)
- ISSeP - Institut Scientifique de Service Public (BEL)
- KOMAG (POL)
- University of Nottingham (GBR)



EU coal production and imports, 2010



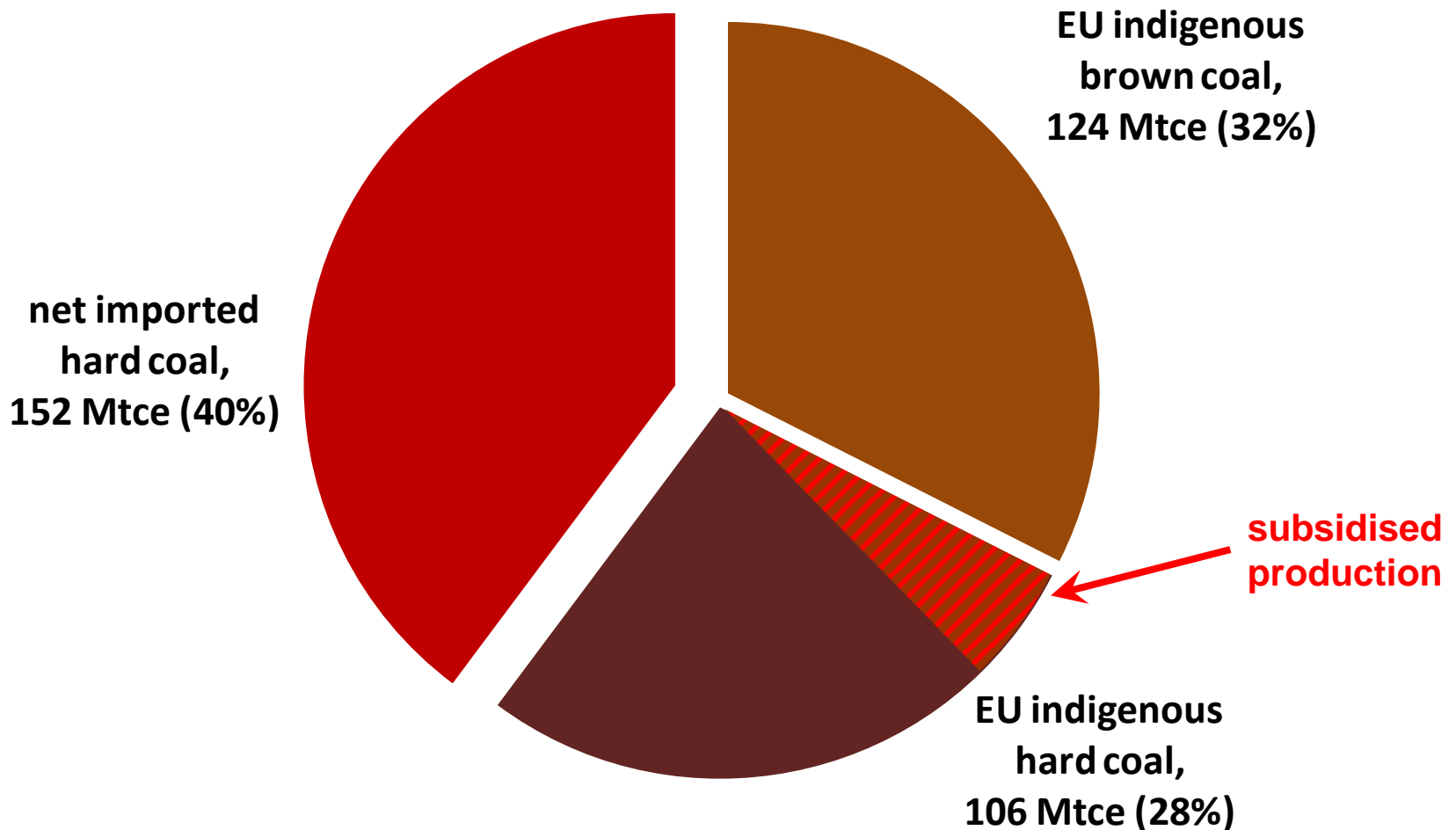
Source: EURACOAL members



- EU hard coal production: 133 Mt
- EU lignite production: 396 Mt
- EU coal imports: 188 Mt

Coal and lignite are the European Union's most important energy resources.

EU solid fuel mix, 2010 – 60% indigenous



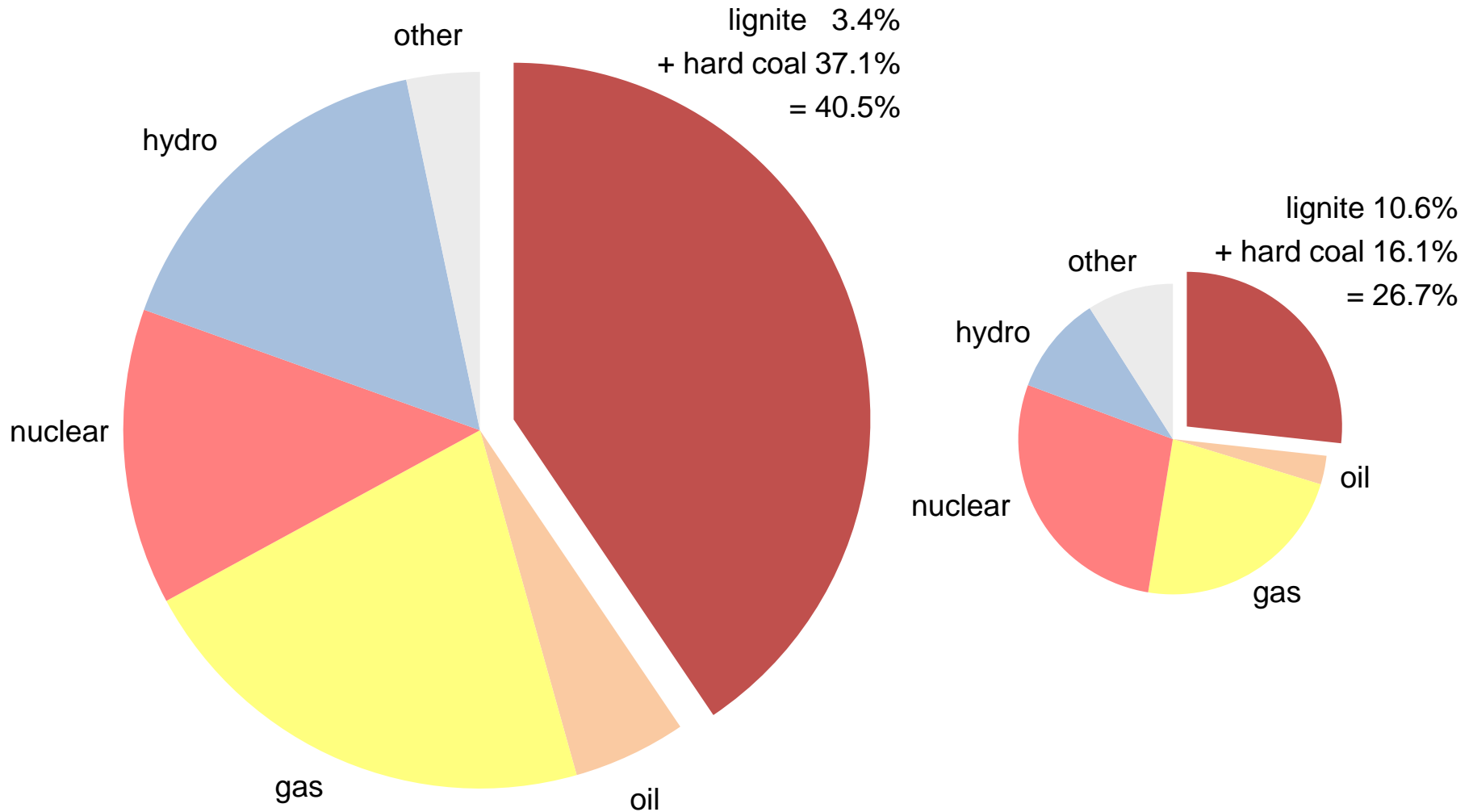
source: *Coal Information 2011*, OECD/IEA and EURACOAL analysis

Production subsidies do not distort demand – sales are at market prices.

Fuel sources for electricity generation, 2009

World: 20 055 TWh

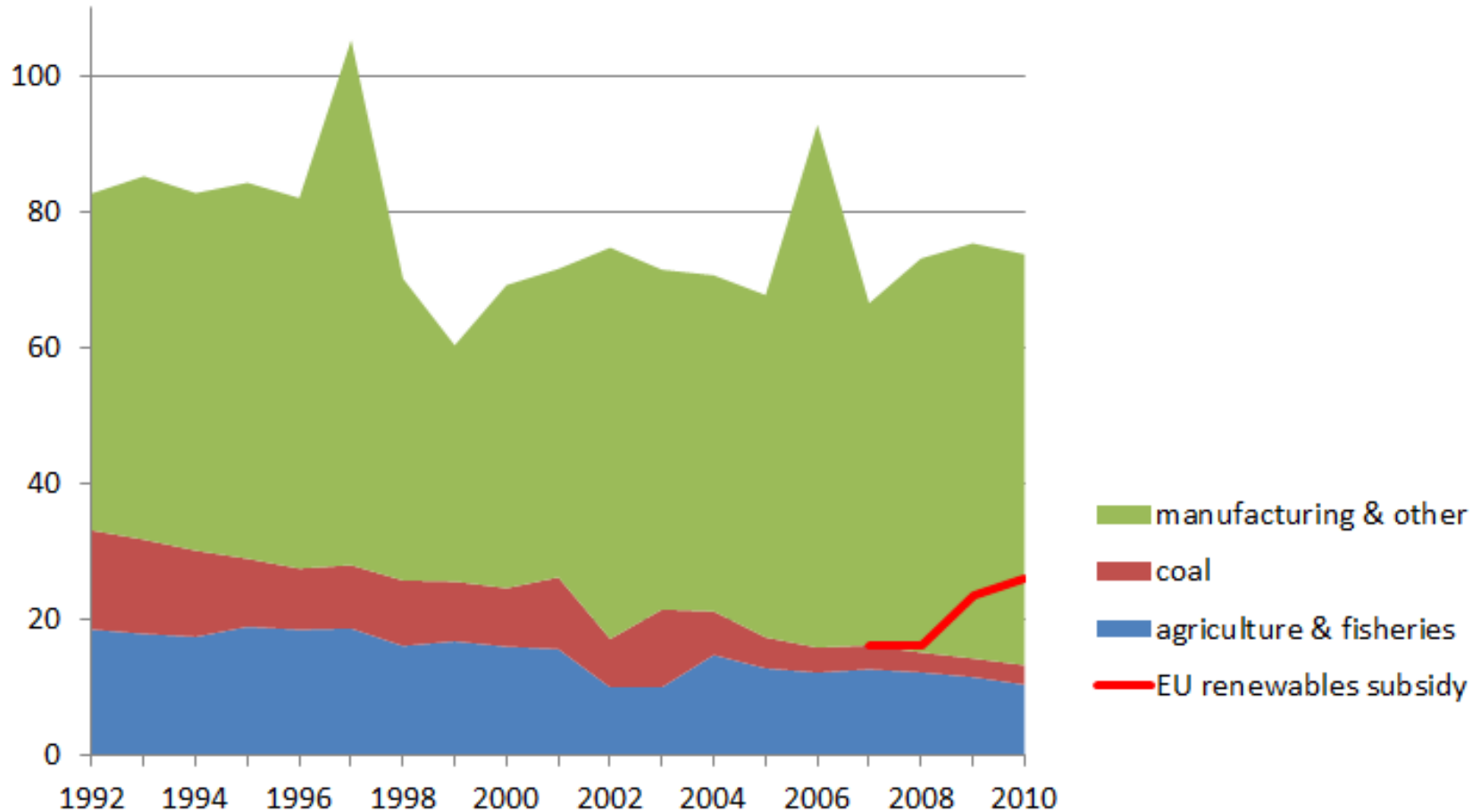
EU-27: 3 178 TWh (15.8%)



sources: IEA Key World Energy Statistics 2011 and IEA databases

State aid in EU-27, 1992-2010

billion euros

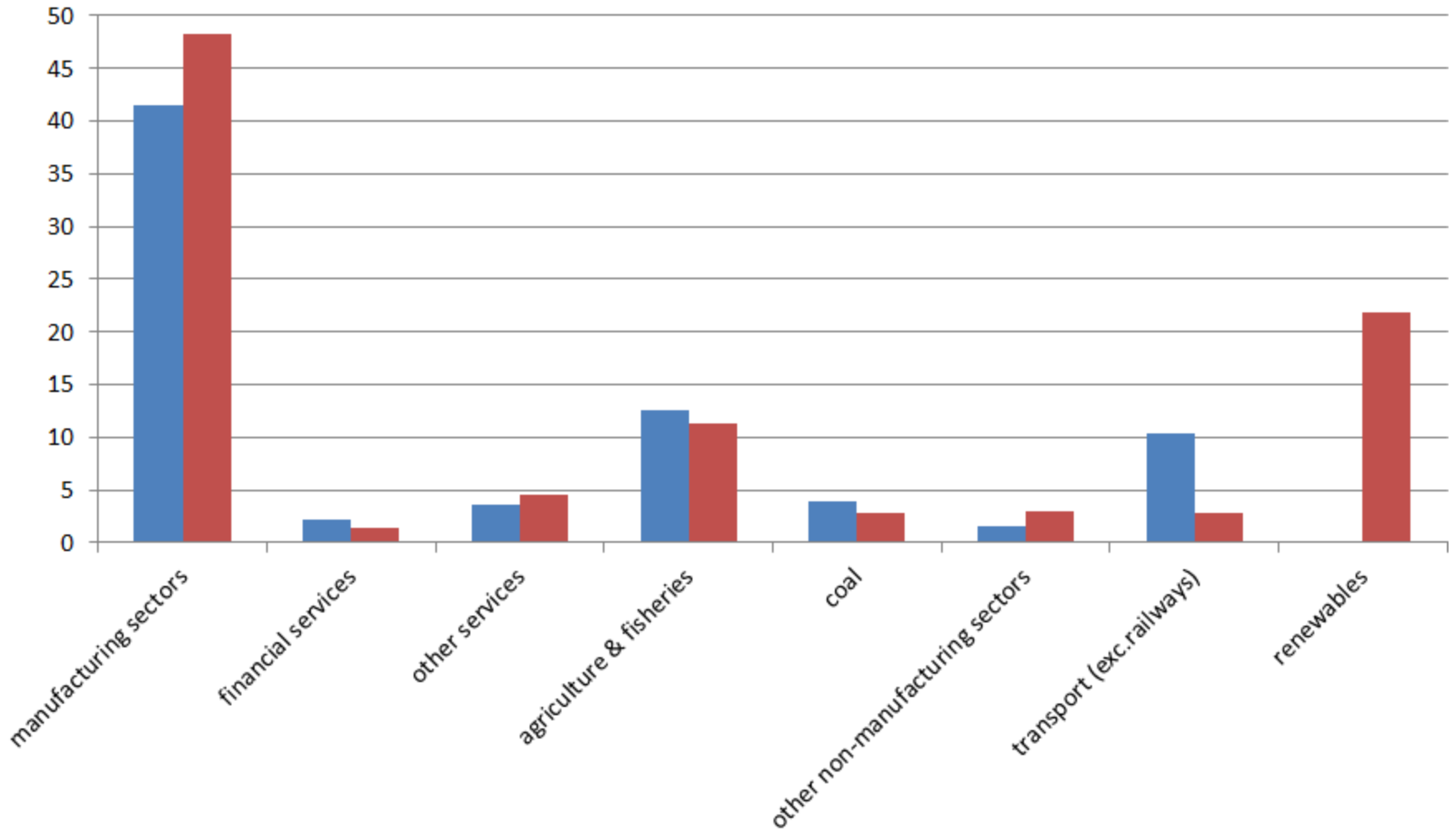


source: DG Competition and IEA *World Energy Outlook 2011* Fig.14.13

Non-crisis State aid by sector, 2005-2010

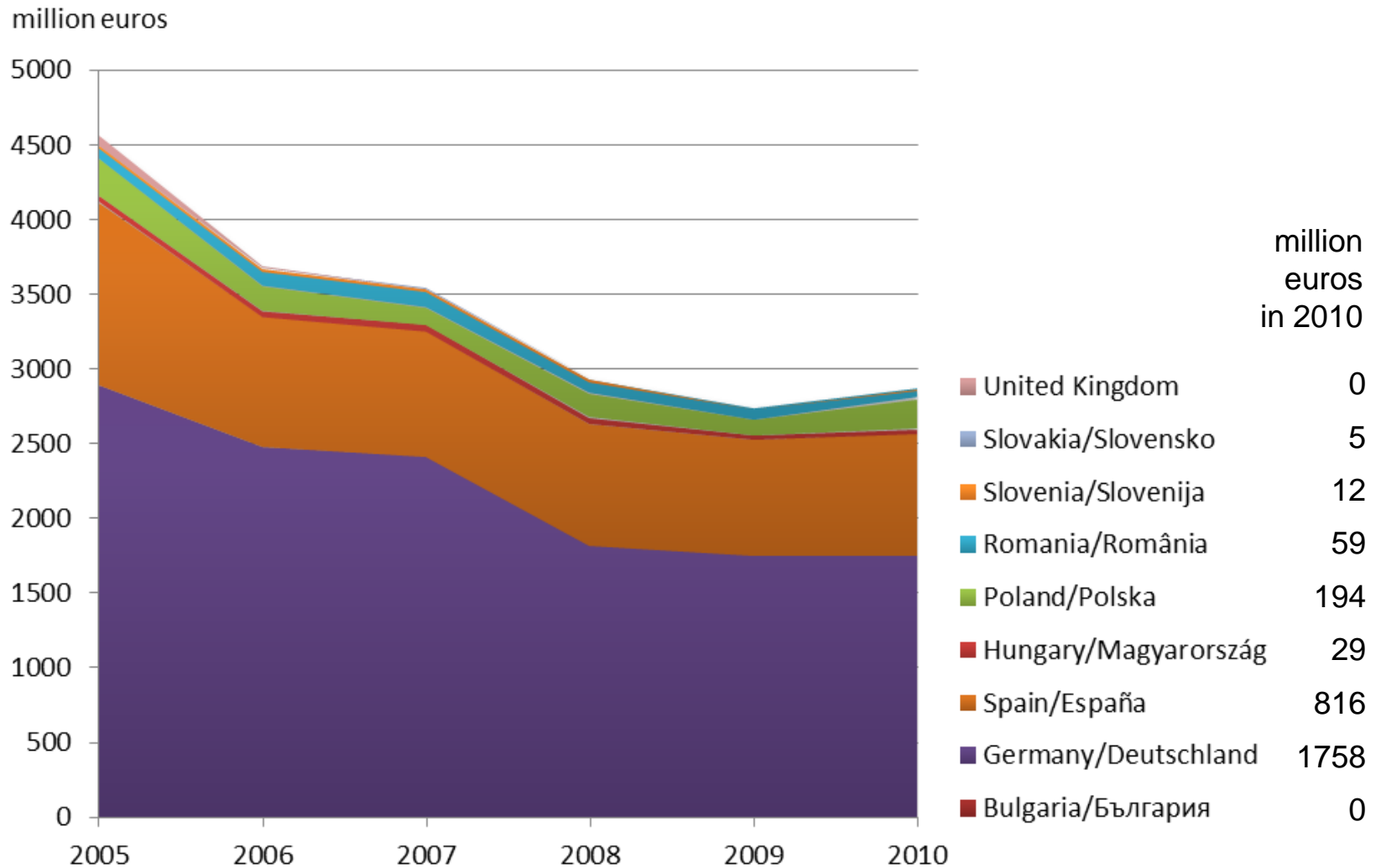
billion euros

■ average 2005-2007 ■ average 2008-2010



source: DG Competition and IEA *World Energy Outlook 2011* Fig.14.13

State aid to the coal sector, 2005-2010



source: DG Competition

State aid for coal production to end by 2018

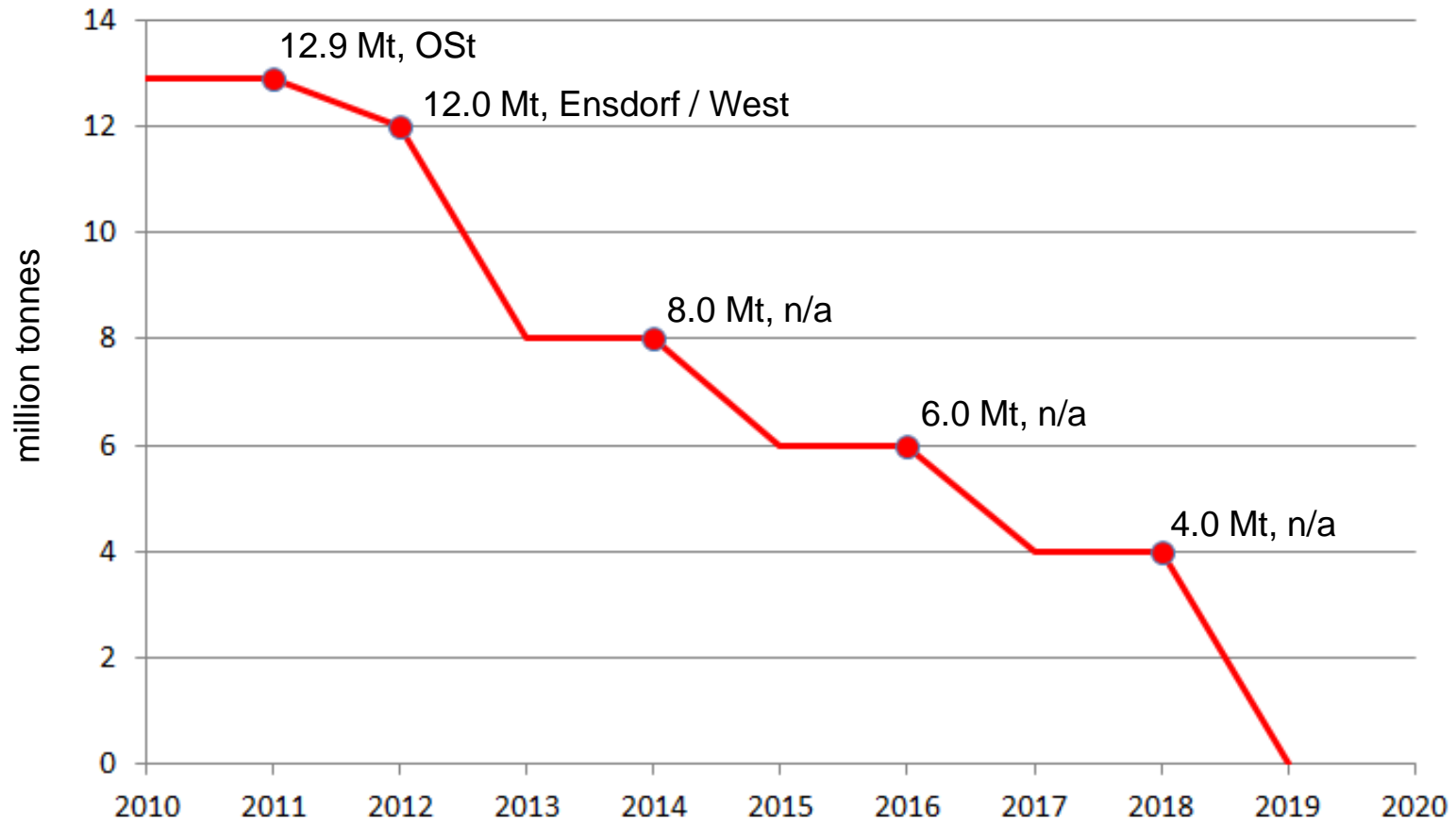
- State aid to coal companies in the EU totalled €2.9 billion in 2010. They produced around 27 Mt – equivalent to around 1.8% of EU electricity production, if it had all been used for power generation (*c.f.* €26 billion paid to renewables which had a share of 8% in EU power production in 2010, plus 12% hydro).
- Council Decision 2010/787/EU on state aid to facilitate the closure of uncompetitive coal mines allows public authorities to grant, under certain conditions, aid to the coal industry with a view to facilitate the closure of uncompetitive hard coal mines by December 2018.
- The G20 decision in September 2009 to phase out fossil fuel subsidies over the medium term was one driver among many behind this Council Decision.
- Relevant to Germany, Spain, Poland, Romania, Hungary, Slovenia and Slovakia. No aid is paid in Bulgaria, the Czech Republic, UK (or Norway). Does not apply to ortho-lignite (<15,000 kJ/kg).

Situation in German coal sector

- Germany mines c.170 Mt of lignite (brown coal) annually. No subsidy is paid for this production.
- In addition, Germany produced 12.9 Mt of hard coal and imported a further 47 Mt in 2011 (including coke).
- Hard coal is used for power generation (> two thirds) and steel making (< one third) + small quantity for industrial/domestic heating.
- The capacity of hard coal-fired plants in Germany is 28 GW. All are fitted with FGD and their average age is c.30 years.
- New plants under construction totalling 8 GW (+ 6.5 GW proposed).
- Hard coal production will be phased out by 2018 along with production aid.
- In the future, annual hard coal demand could grow above 60 Mt and will be entirely met by imports post 2018.

At 170 Mt in 2010, Germany is the world's largest brown coal producer.

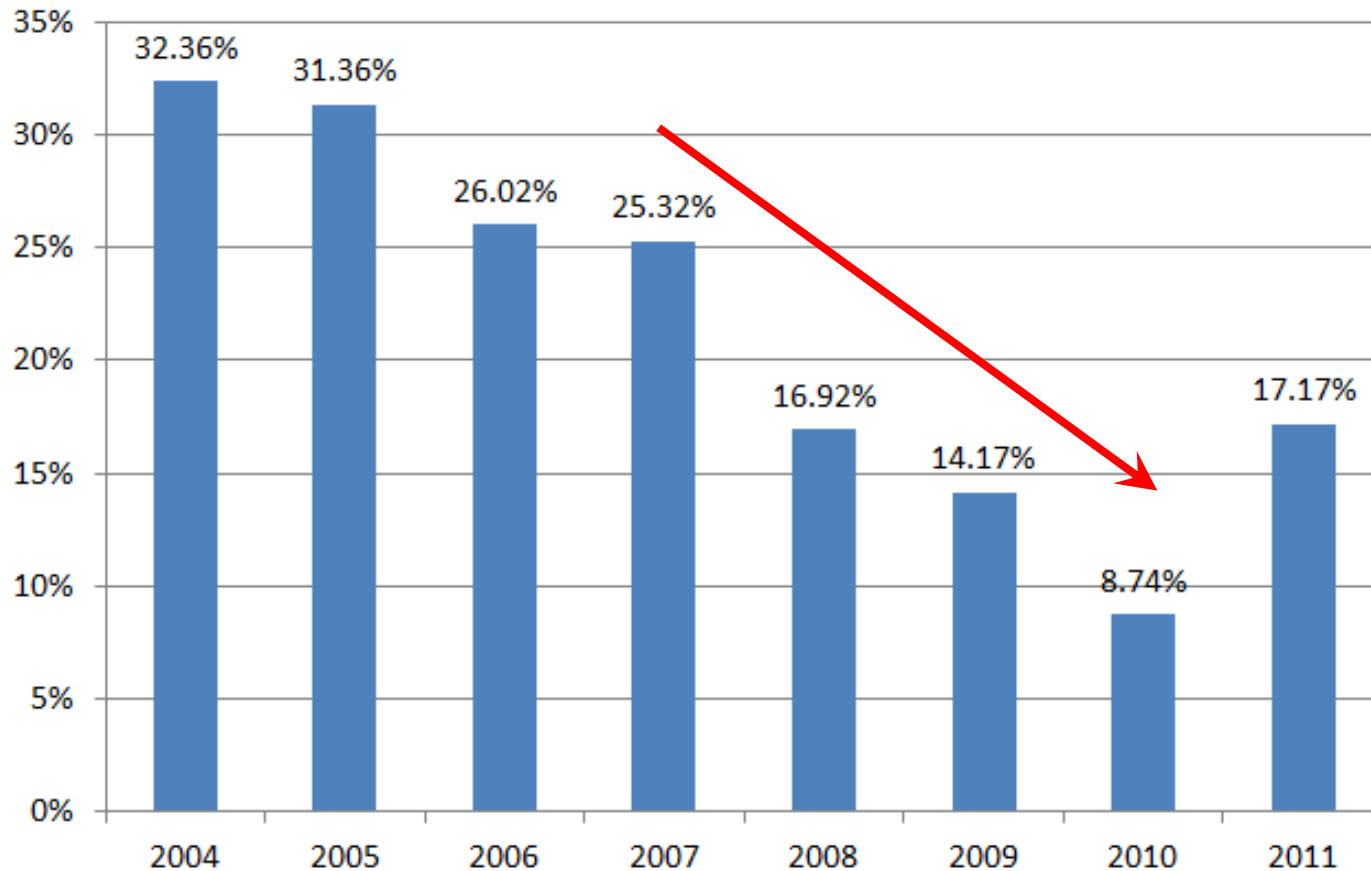
German hard coal production forecast



source: VDKi

Phase out of German hard coal mining has been agreed and accepted.

Share of electricity generated from coal in Spain



source: CARBUNION

Demand for domestic coal evaporated in 2010 leading to massive stocking.

Situation in Spanish coal sector

- 16 companies mined 7.3 Mt of hard coal and 2.5 Mt of black lignite in 2011 for a 9.8 Mt total (+1.4 Mt on 2010). 13.5 Mt were imported.
- Between 2008 and 2010, the use of coal for power generation almost halved (17% share fell to 8.7%).
- Coal stocks grew to 16 Mt.
- March 2011 Royal Decree forced use of domestic coal by generators.
- 60% of coal production is likely to be competitive post 2018, from deep mines and opencast pits.
- Repayment of state aid would be impossible for the companies that operate these mines and pits (as required by the Council Decision), but it seems wrong to close viable assets.
- Future coal demand is uncertain – more than anywhere it depends on gas-coal competition and output from renewables.

Situation in Polish coal sector

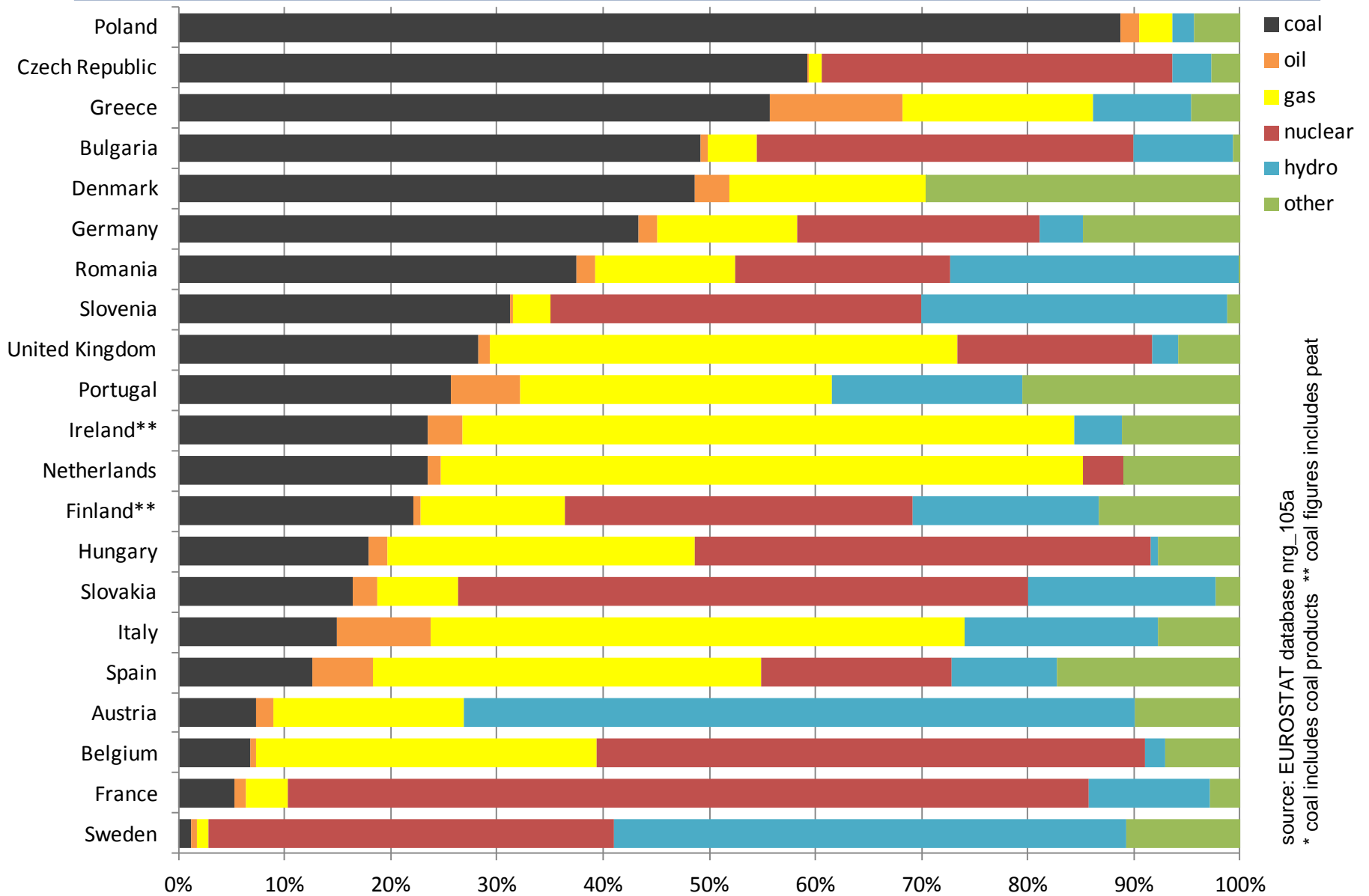
- The lignite sector is fully competitive (c.60 Mt).
- No production subsidy is paid to the hard coal sector in Poland, but investment aid is available.
- The hard coal industry is undergoing further restructuring to ensure its future competitiveness.
- Some mines have already been privatised, others will follow. This has led to productivity improvements and output expansion.
- Inefficient mines will be closed.
- Imports may continue to rise above an estimated 15 Mt in 2011.

At 77 Mt (2010), Poland is largest EU hard coal producer by a wide margin.

Romania, Hungary, Slovenia & Slovakia

- National Hard Coal Company JSC Petrosani is the only hard coal producer in **Romania**. It owns seven mines producing 2.2 Mtpa, three of which are uncompetitive and will close: one by the end of 2015 (Petrila colliery) and the other two by the end of 2017 (Uricani and Paroşeni). 38% of electricity comes from coal, mainly lignite.
- In **Hungary**, Mátrai Erőmű Zrt. produced 8.8 Mt of lignite in 2011. Only Vértesi Erőmű Zrt. received production subsidy for 0.7 Mt of lignite which will end when Vertes power station closes.
- **Slovenia** produced 4.5 Mt of lignite in 2011. Aid is only paid for exceptional costs at closed mines.
- Three companies in **Slovakia** (Hornonitrianske Bane Prievidza, Bana Cary and Bana Dolina) produced 2.4 Mt of lignite in 2011. A PSO ensures security of electricity supply by favouring indigenous energy sources (*i.e.* domestic lignite). With imports of c.3.4 Mt, coal account for 13% of generation. Two 440 MW nuclear units under construction and a new 430 MW CCGT will add significant capacity (+20%).

Energy mix for power generation in EU, 2009



source: EUROSTAT database nrg_105a
 * coal includes coal products ** coal figures includes peat

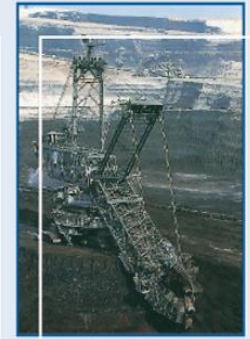
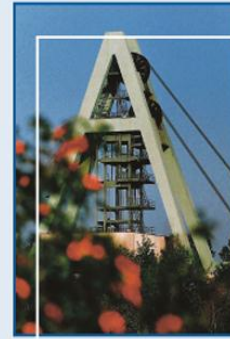
Conclusions

- Subsidised production accounts for only a small share of total production (5% on a tonnage basis) and a small share of total consumption (5% on an energy basis).
- Subsidies will be phased out by the end of 2018.
- Germany will substantially increase its imports to cover the loss of all domestic hard coal production: up to 13 Mt over next five years.
- 60% of Spanish coal production could be competitive and has a market with local utilities. The issue of subsidy repayment must be resolved. Beyond that, coal must compete with gas at the margin.
- Poland's imports have been rising and will likely continue to rise as inefficient mines are closed. However, privatisation will boost productivity and output at the remaining mines, so hard coal production should stabilise.

Vast majority of EU coal and lignite production is competitive with imports.

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Thank you!



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