

Phasing out coal in Europe

The status of coal use and phase-out plans in Europe and the implications of a potential climate target of -55% by 2030

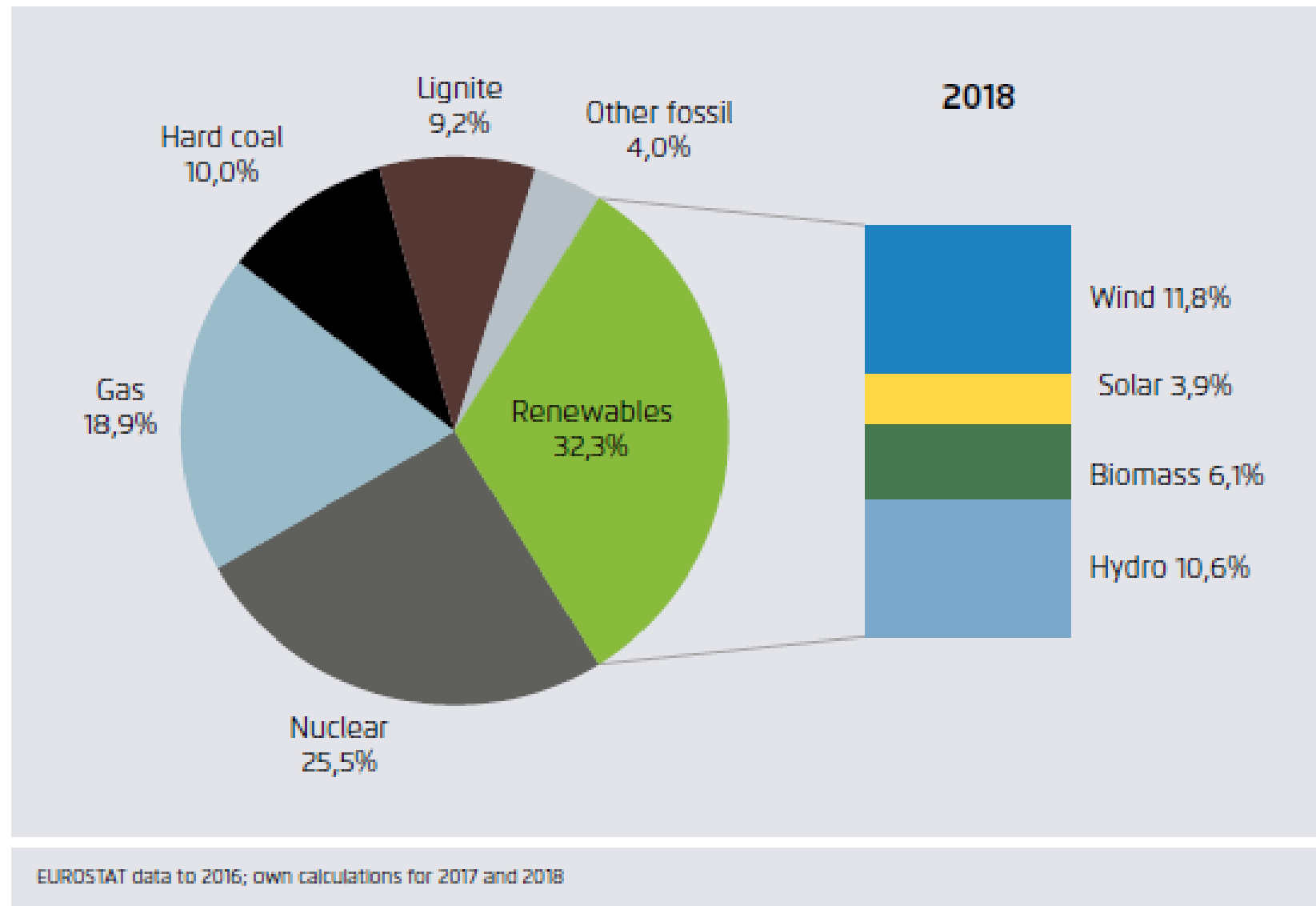
Philipp Litz

BRUSSELS, NOVEMBER 2019



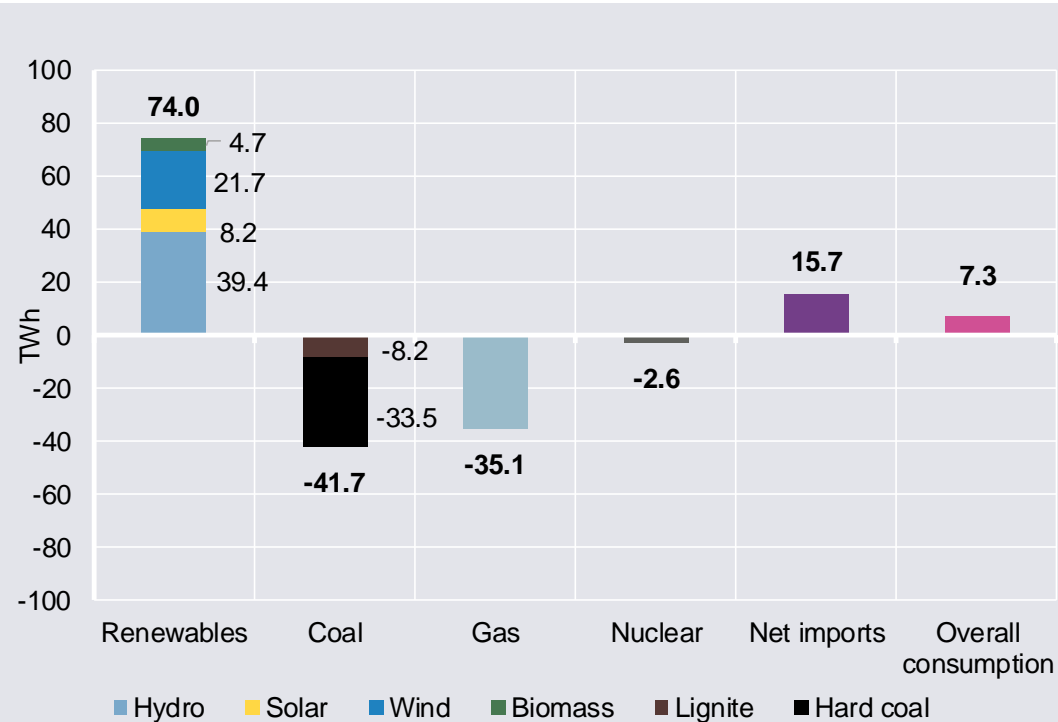
EU Coal – State of Play

In 2018, lignite and hard coal power plants provided ~20% of the EU's power generation



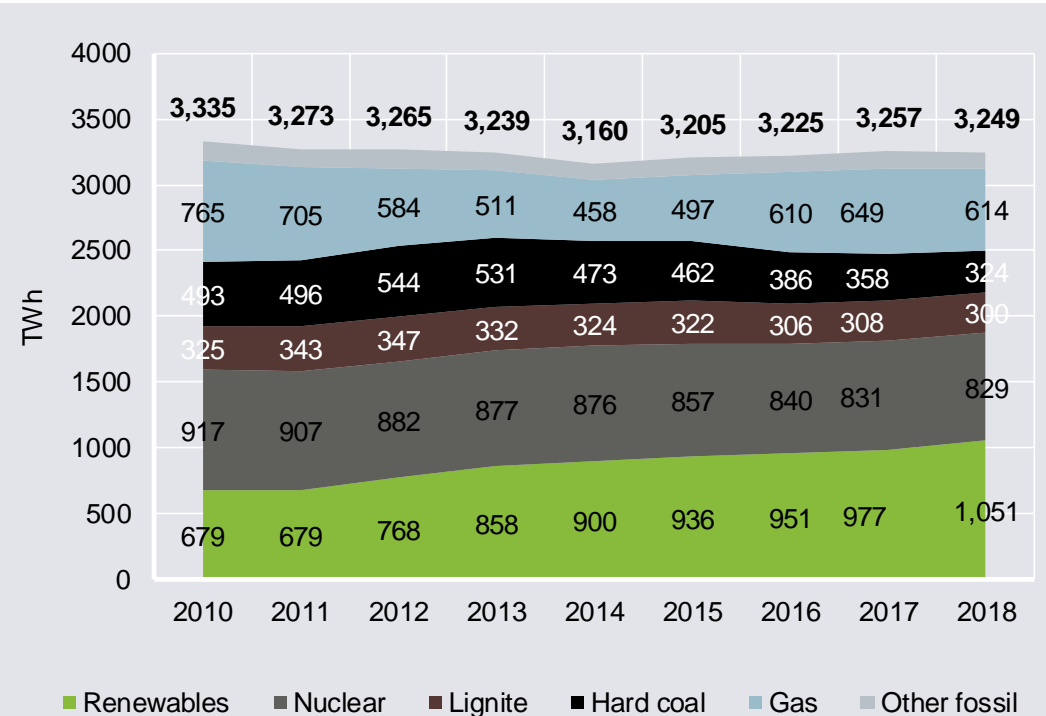
Between 2010 and 2018, power generation from coal plants dropped from ~800 TWh to ~600 TWh

Changes in EU28 electricity generation from 2017 to 2018



EUROSTAT data to 2016; own calculations for 2017 and 2018

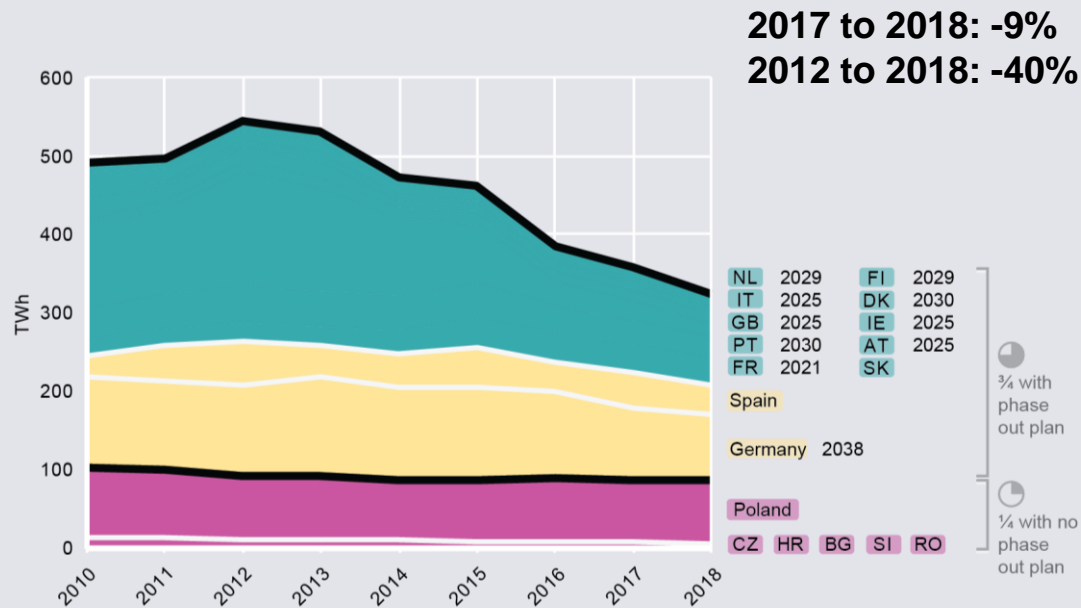
EU28 electricity generation



EUROSTAT data to 2016; own calculations for 2017 and 2018

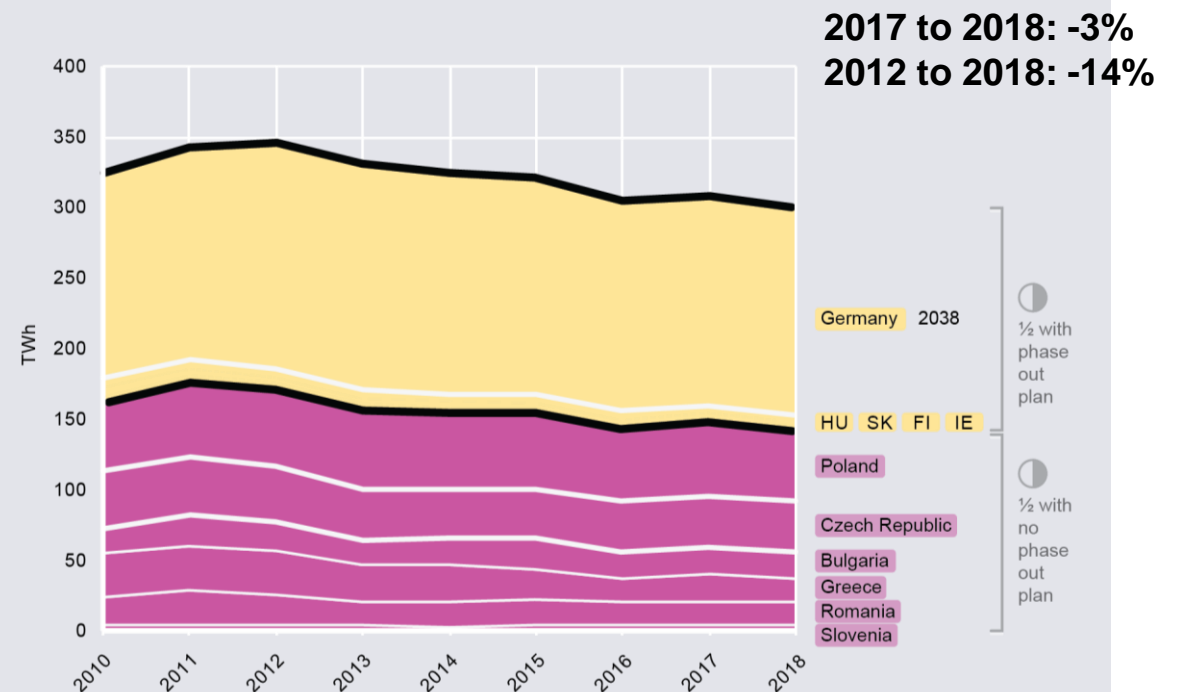
A tale of two types of coal: Due to higher marginal cost, especially the power generation from hard coal has decreased

Hard coal generation (EU-28)



EUROSTAT data to 2016; own calculations for 2017 and 2018; phase out details from [Beyond Coal 2019](#)

Lignite generation (EU-28)



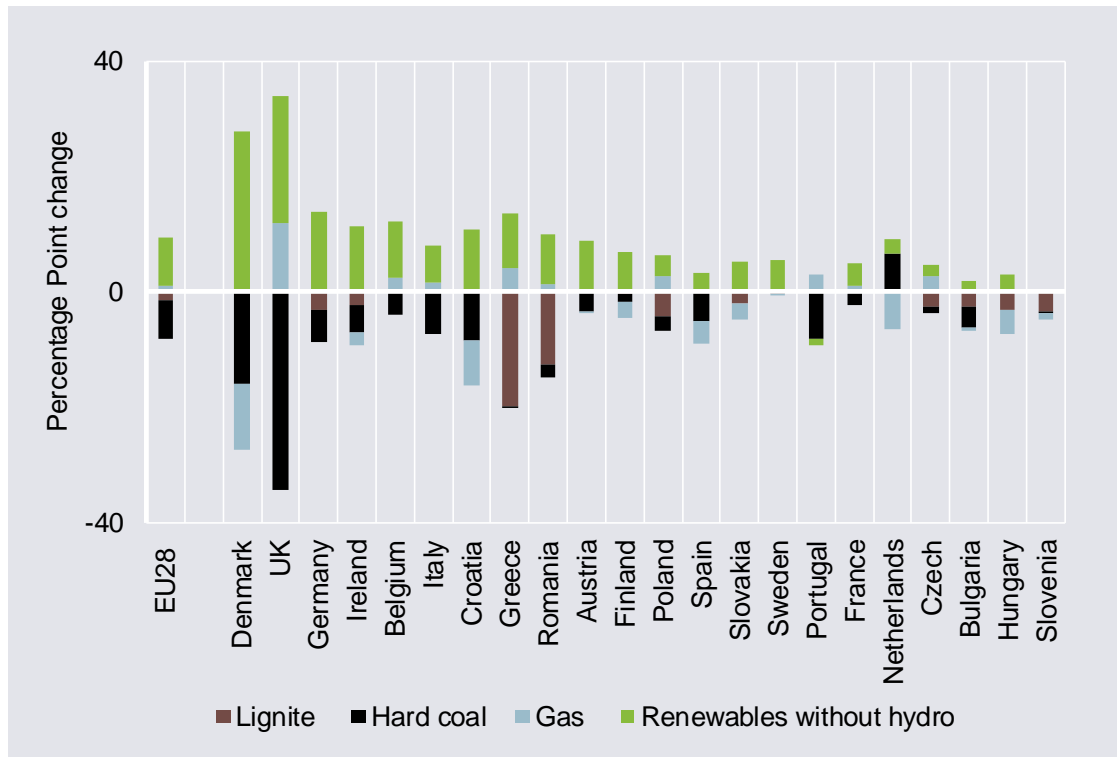
EUROSTAT data to 2016; own calculations for 2017 and 2018; phase out details from [Beyond Coal 2019](#)

Renewables is displacing coal.

But renewables isn't being built everywhere... which is why lignite is slow to fall...



Electricity mix percentage point changes, from 2012 to 2018



EUROSTAT data to 2016; own calculations for 2017 and 2018

Wind and Solar forecasts for countries with no lignite phase-out

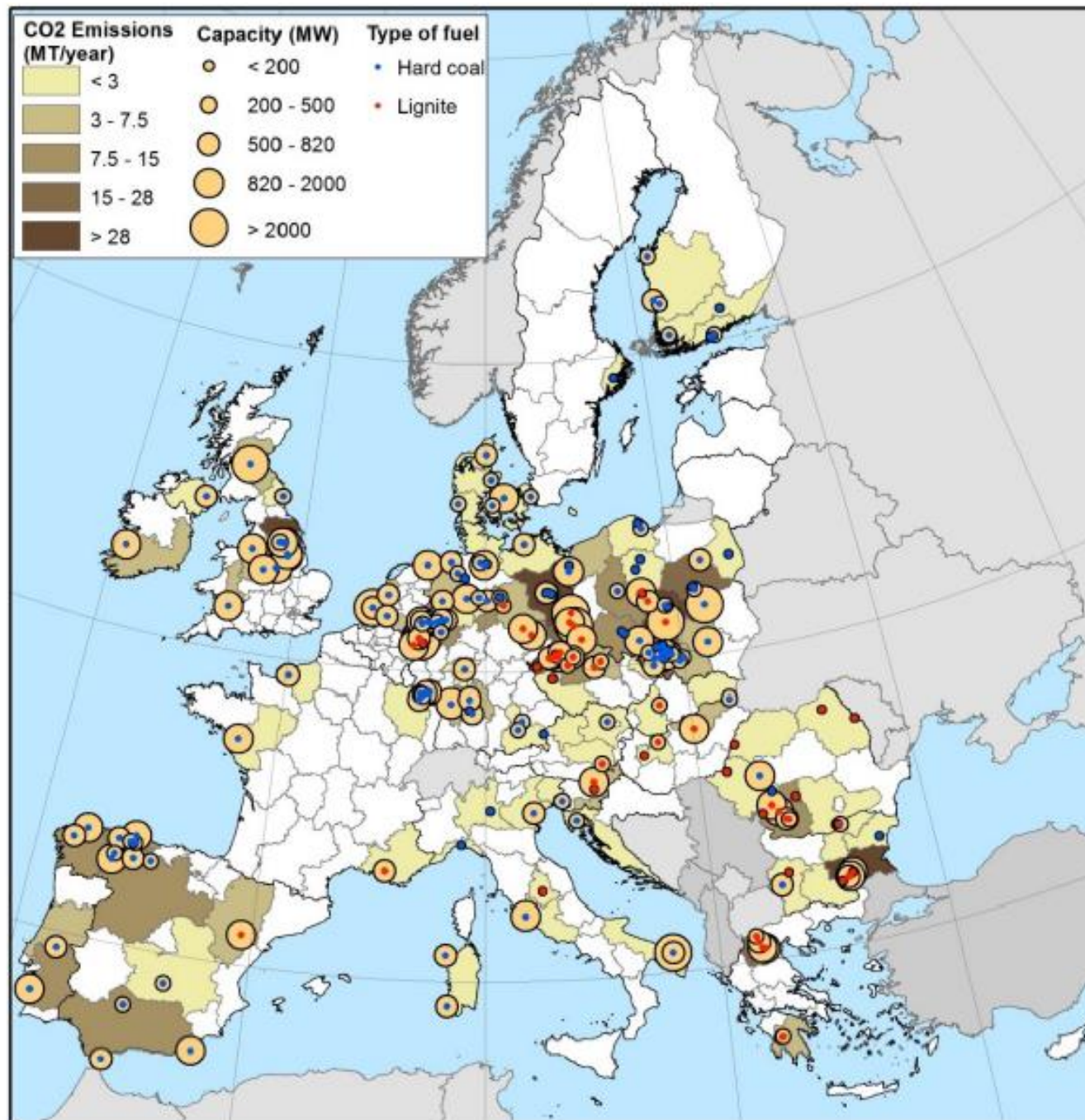
	Wind			Solar		
	Installed end-2017	Installed end-2022	Additions 2018-2022	Installed end-2017	Installed end-2022	Additions 2018-2022
Poland	5.8	6.4	0.6	0.3	2.4	2.1
Czech Republic	0.3			2.0		
Bulgaria	0.7			1.0		
Greece	2.7	4.0	1.3	2.6	4.2	1.6
Romania	3.0	3.5	0.5	1.4		
Slovenia	0.003			0.258		

WindEurope [actuals](#) and [forecast](#); SolarPower Europe [actuals](#) and [forecast](#)

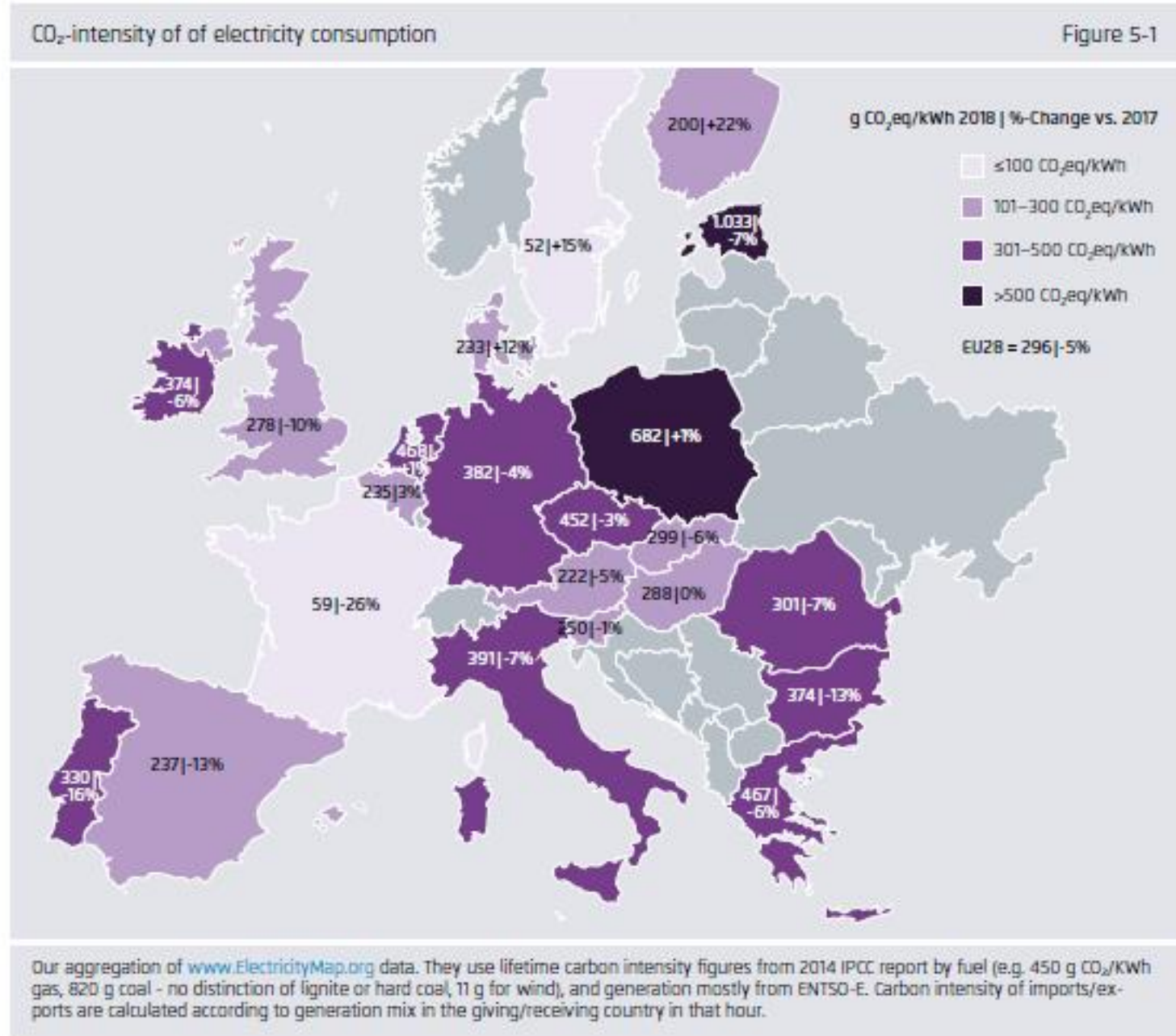


Phase Out Plans

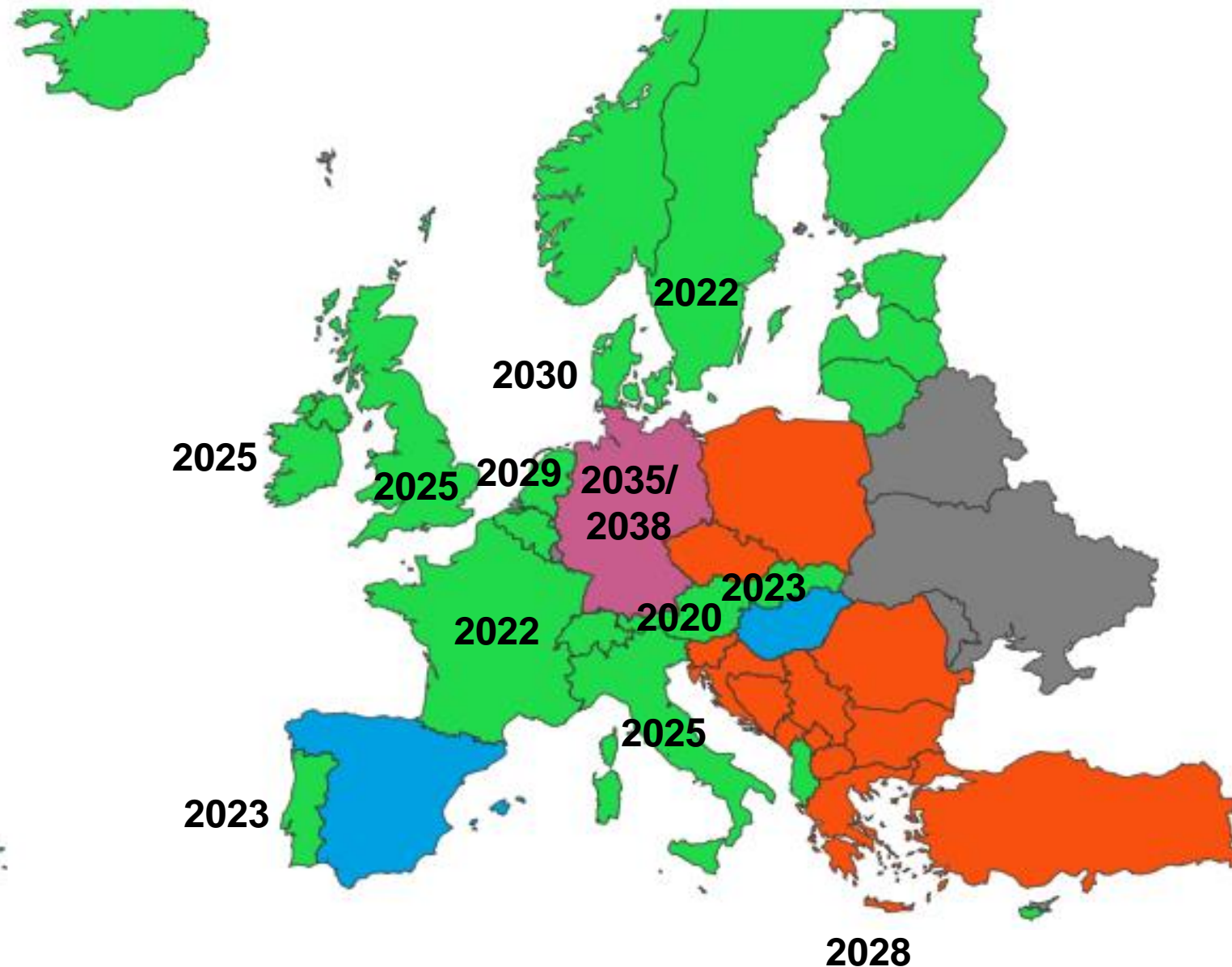
**Almost all EU
members
states have
relevant coal
capacities in
their power
system**



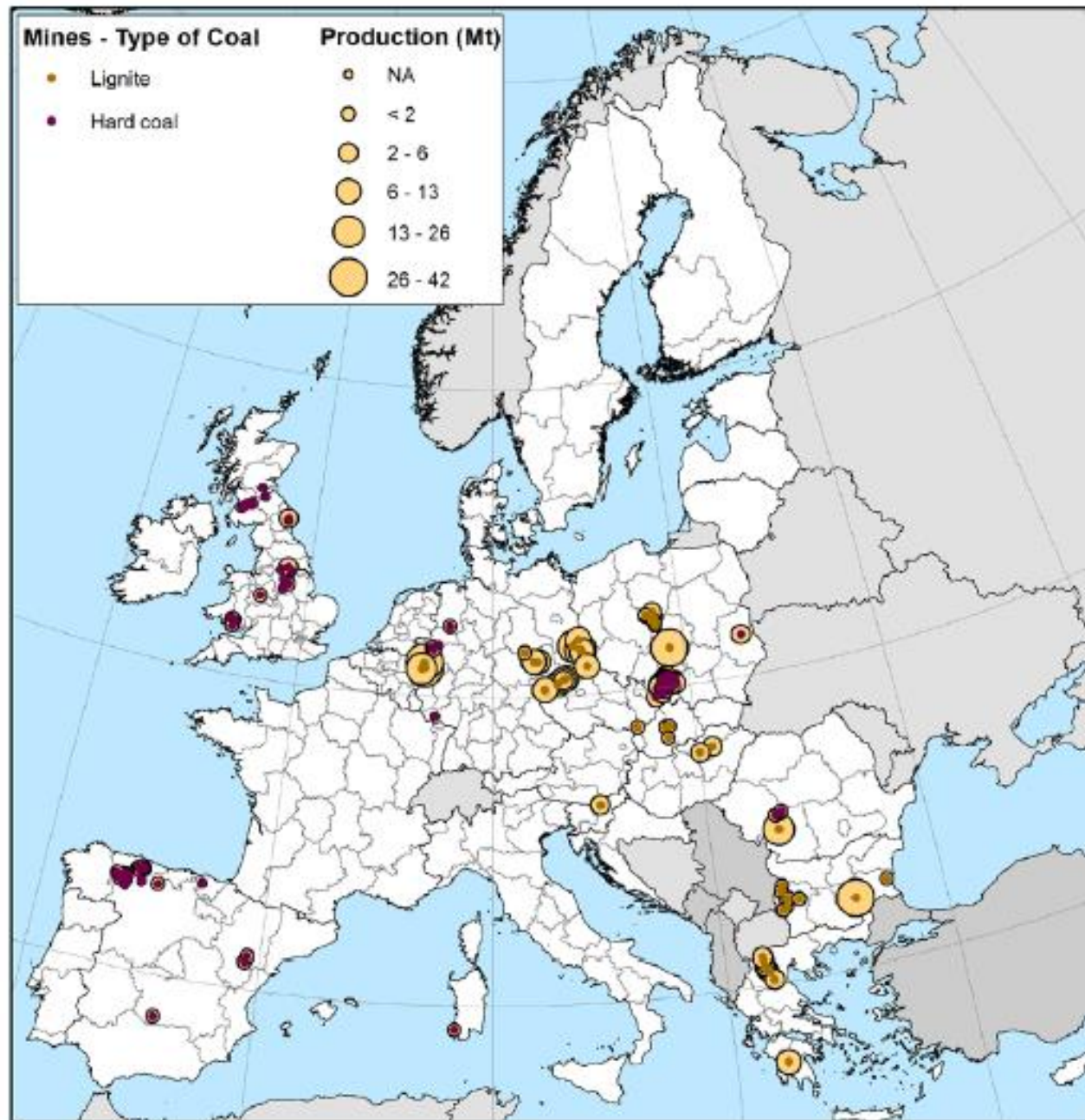
But: The share of coal in national coal mixes varies widely – with major effects on the CO₂-intensity of the power mix



A substantial number EU member states has already implemented or announced to phase out coal by 2030



There is a strong correlation between phase out ambition and regional mining



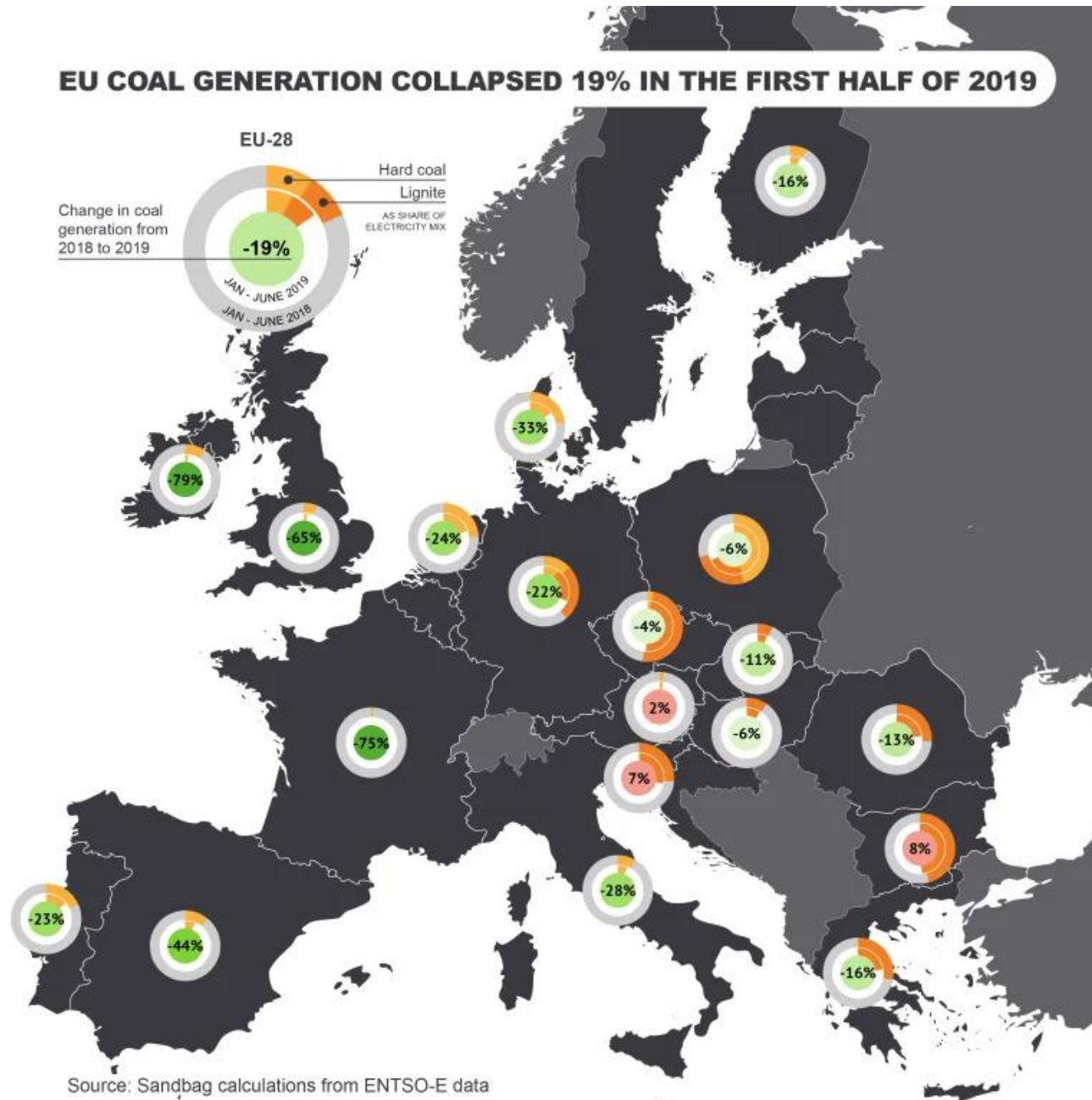
This is no surprise, since most of the employment in the coal sector goes back to mining

Country	Jobs in coal power plants	Jobs in coal mines	Total jobs
Poland	13 000	99 500	112 500
Germany	10 900	24 700	35 700
Czech Republic	3 600	18 000	21 600
Romania	3 600	15 000	18 600
Bulgaria	2 700	11 800	14 500
Spain	3 300	3 400	6 700
Greece	1 600	4 900	6 500
United Kingdom	4 100	2 000	6 100
Slovakia	500	2 200	2 700
Italy	2 400	300	2 700
Hungary	900	1 700	2 500
Slovenia	600	1 300	1 900
Finland	1 100	0	1 100
Denmark	1 000	0	1 000
Netherlands	900	0	900



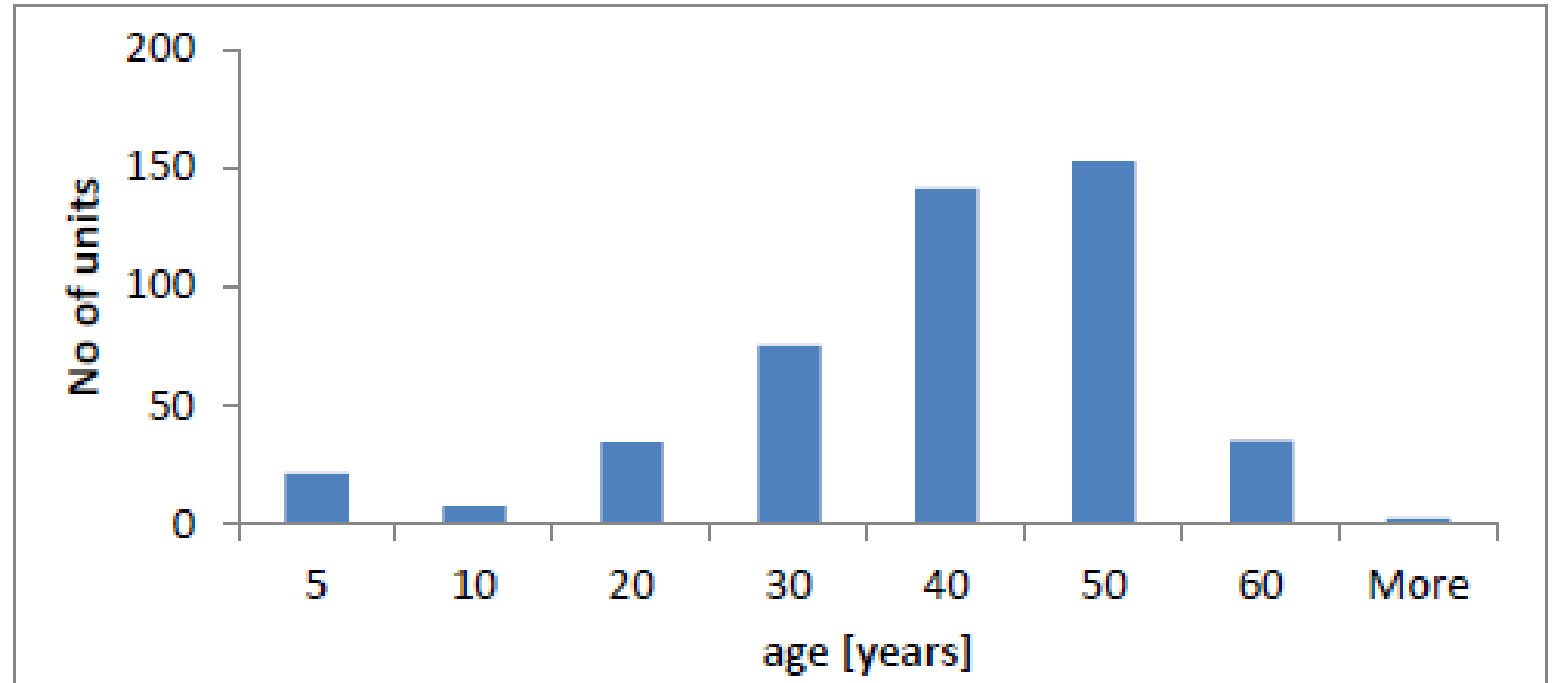
Outlook

Outlook 2019: We will see yet another significant drop in coal generation



Outlook 2030 (1): About two thirds of coal power plants will be retired

Figure 22. Age distribution of the European coal power plant fleet.



**Outlook 2030 (2):
An increase of
climate ambition
to -55% might
result in a EU
wide coal phase
out “well before
2035”**

- Contributions by ETS/Non-ETS essential
- Coal phase out by 2030 would bring EU to -50% to -53% in 2030

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Thanks!

Haben Sie noch Fragen oder Kommentare? Kontaktieren Sie mich gerne:

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