

Quels Nucléaires pour sortir des fossiles ?

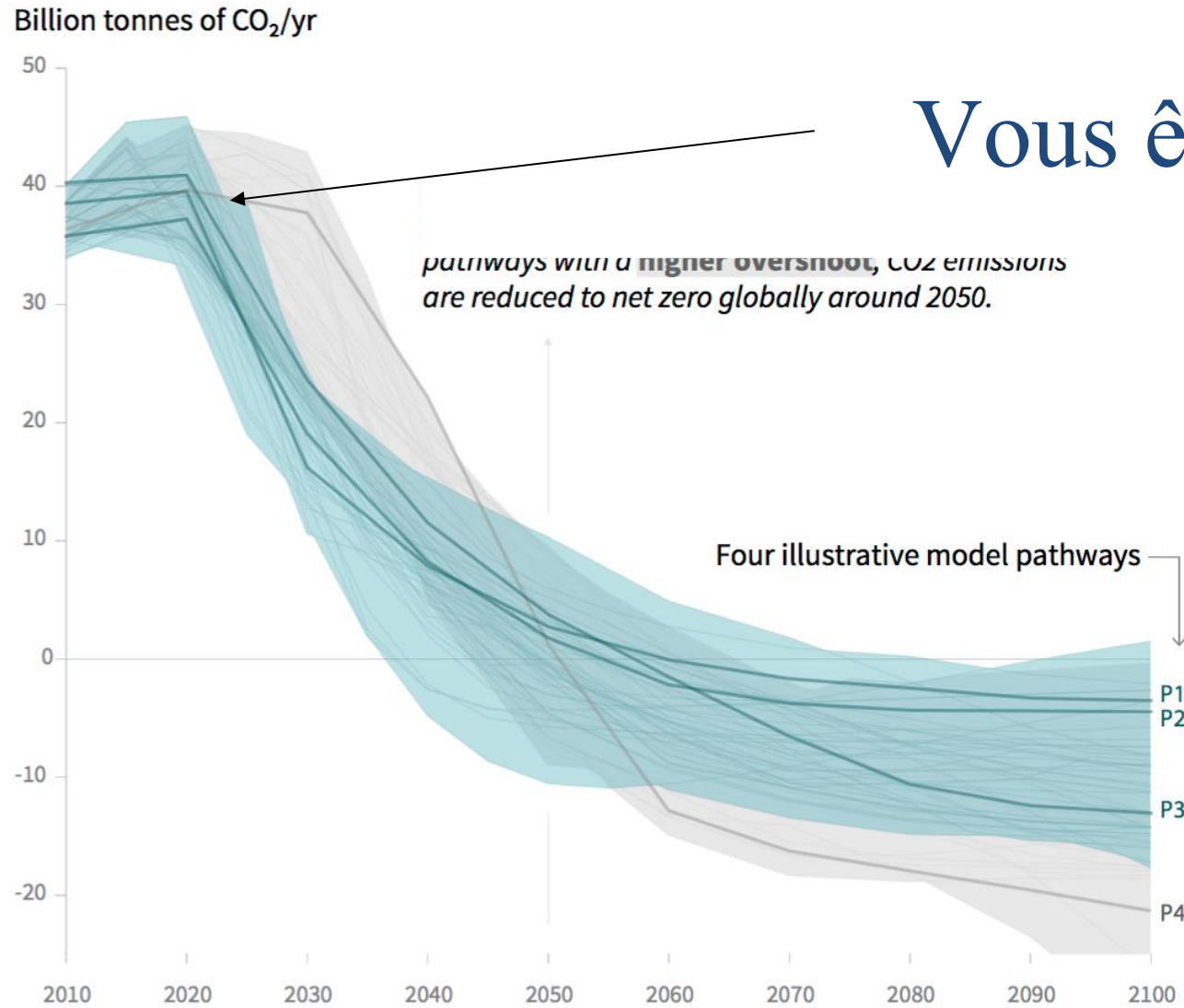
Adrien Bidaud

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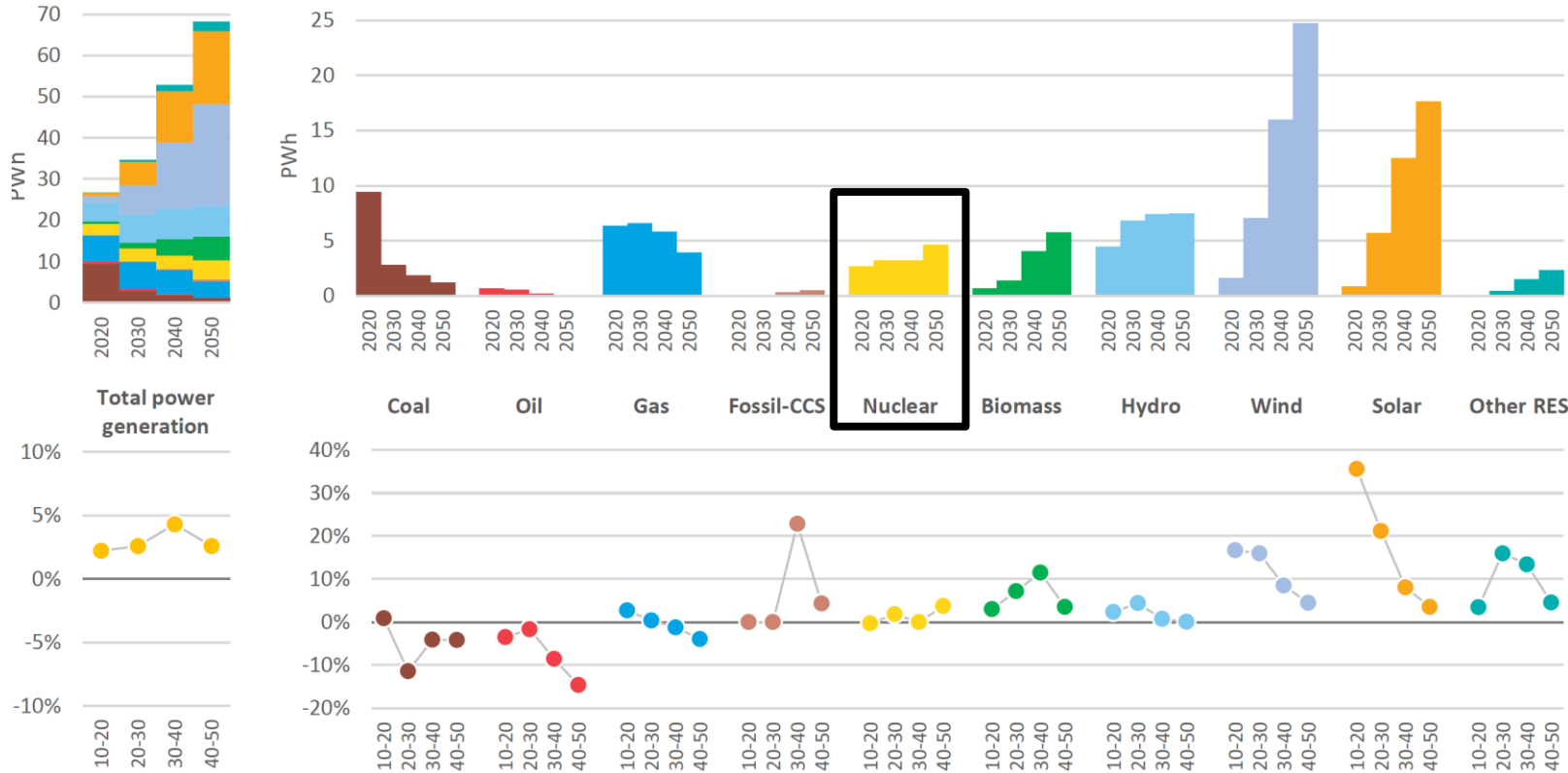
Sortir des fossiles ?

Vous êtes ici !



Quelle contribution du nucléaire à la transition énergétique?

Figure 5: Global power generation by technology, and decadal growth rates, 1.5°C scenario



Source: POLES-JRC model. Notes: Fossil-CCS: Coal-CCS and Gas-CCS; Biomass: Biomass and Biomass-CCS; Other RES: geothermal and ocean.

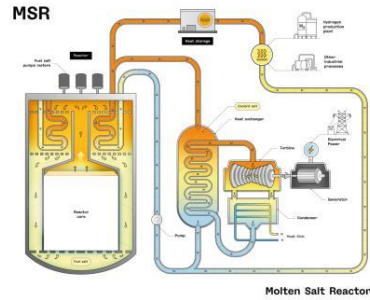
L'électricité devient le vecteur dominant

Le nucléaire maintient ou augmente sa part difficilement

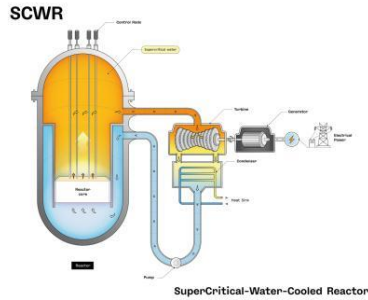
=> Production * 2 vers 2030 -> 4 après 2050

https://joint-research-centre.ec.europa.eu/scientific-activities-z/geco_en

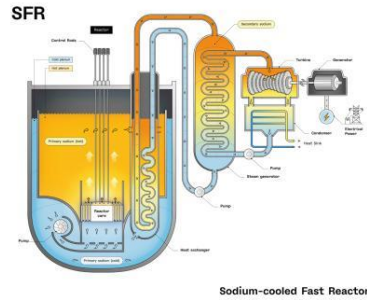
C'est quoi GEN IV?



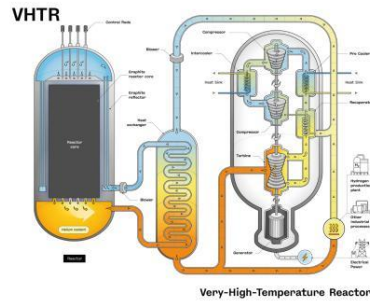
Molten Salt Reactor



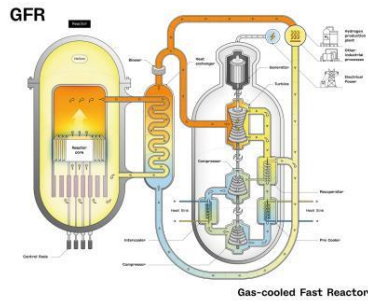
Super-Critical-Water-Cooled Reactor



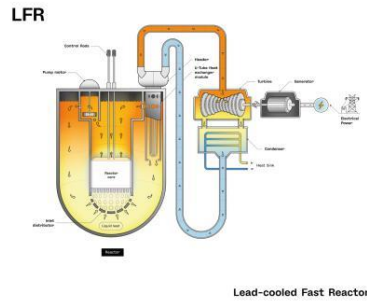
Sodium-cooled Fast Reactor



Very-High-Temperature Reactor



Gas-cooled Fast Reactor



Lead-cooled Fast Reactor



US Amiral H. G. Rickover (1900 – 1986)
« Corrosion, in particular, is a problem. »



EBR I (1951-1964)
(Experimental **Breeder** Reactor)



SuperPhénix, 1200 MWe (1985-1997)