

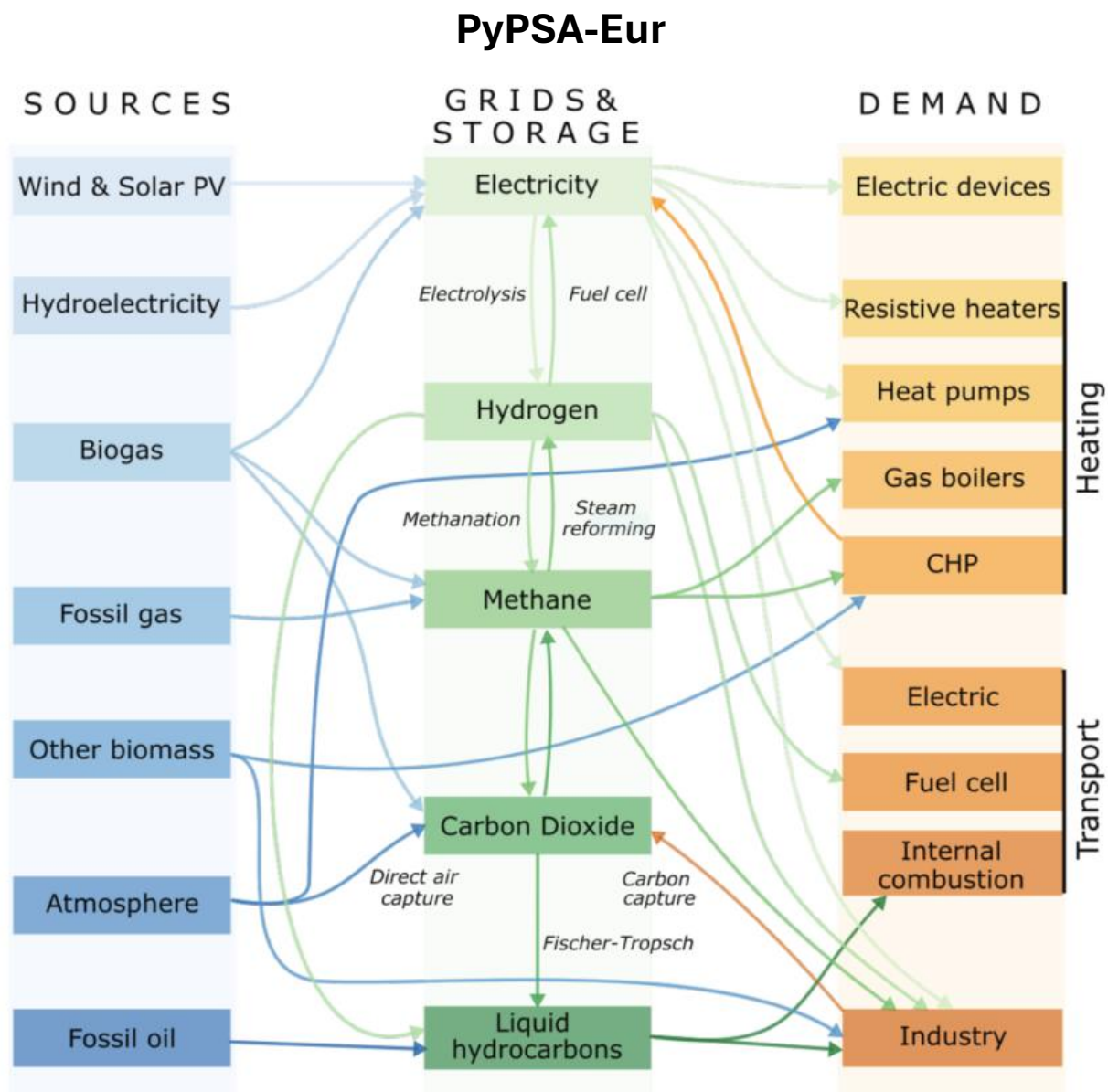
European climate policies: effects on the electricity sector with PyPSA-Pol model

Alice Di Bella, *PhD candidate*
Enrico Antonini, Laurent Drouet, Massimo Tavoni

Openmod workshop
Grenoble, March 26th, 2024



PyPSA – Pol model



EU climate policies

European Climate Law
Fit-for-55 package
REPowerEU

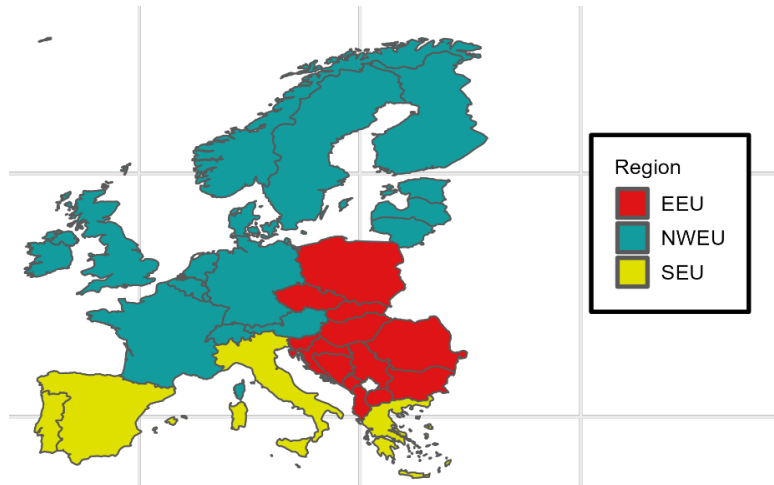
Emissions reduction targets

	2030	2040	2050
ETS: power and energy intensive industry			
ETS2: land transport and buildings			
ESR: agriculture			



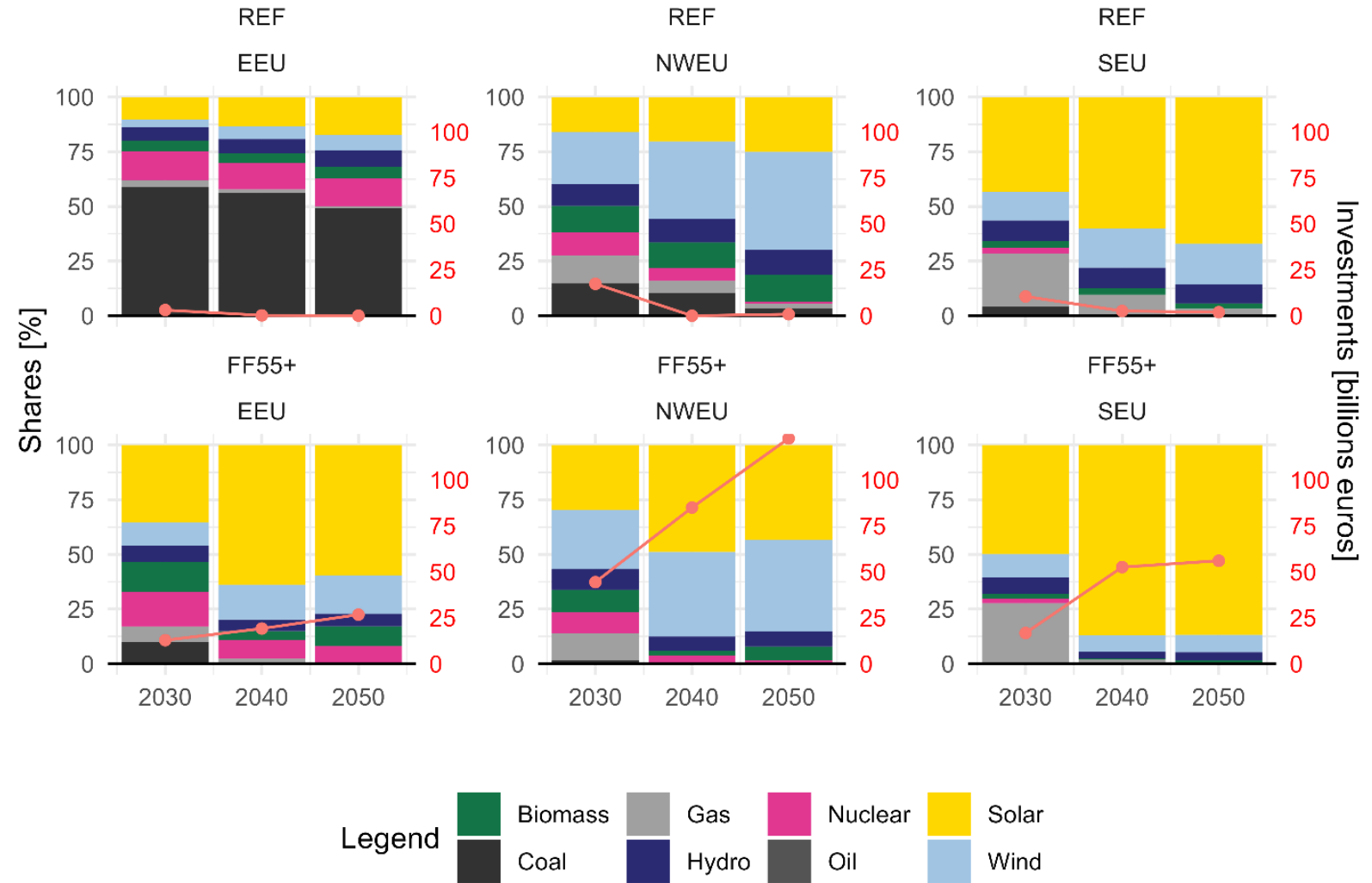
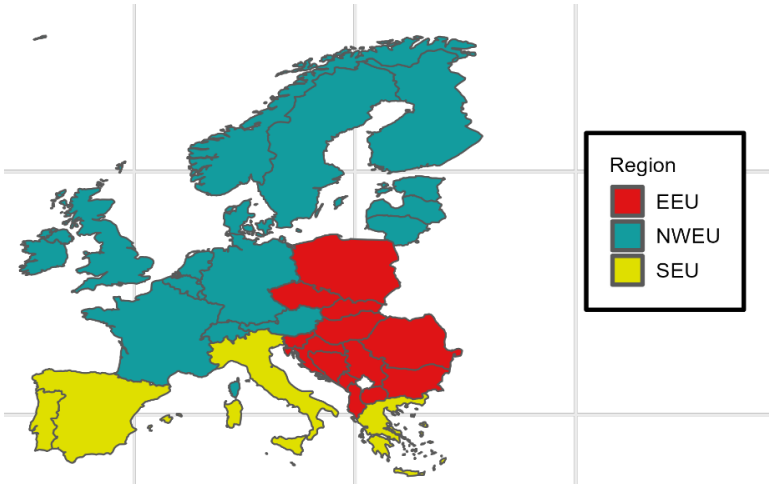
Results – CO2 emissions reduction

	REF	FF55+
PyPSA -Pol	No climate policy for the energy sector	FF55 in 2030, Net Zero CO2 emissions in 2050



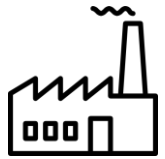
Results – Electricity generation shares

	REF	FF55+
PyPSA -Pol	No climate policy for the energy sector	FF55 in 2030, Net Zero CO2 emissions in 2050





Socio – economic and distributional impacts linking with input – output general equilibrium model



PyPSA-Pol model development: endogenising industry sector demand



Climate change impacts on energy demand and supply