

CZ-AT EEG Prague, September 3, 2007

Structural Energy and Emissions Indicators for the EU-27

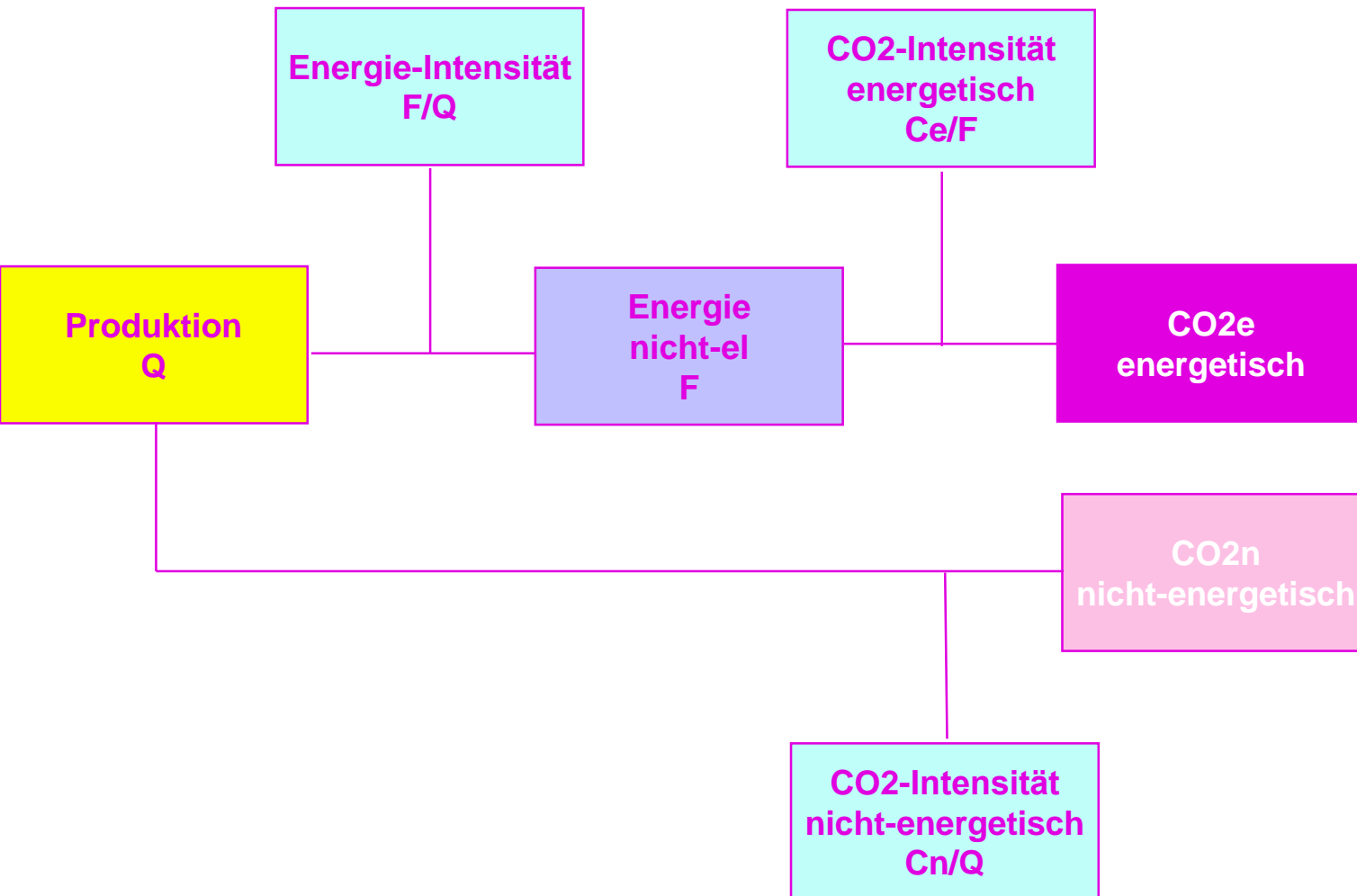
Gregor Thenius

Stefan P. Schleicher

EU Target Sharing 2020

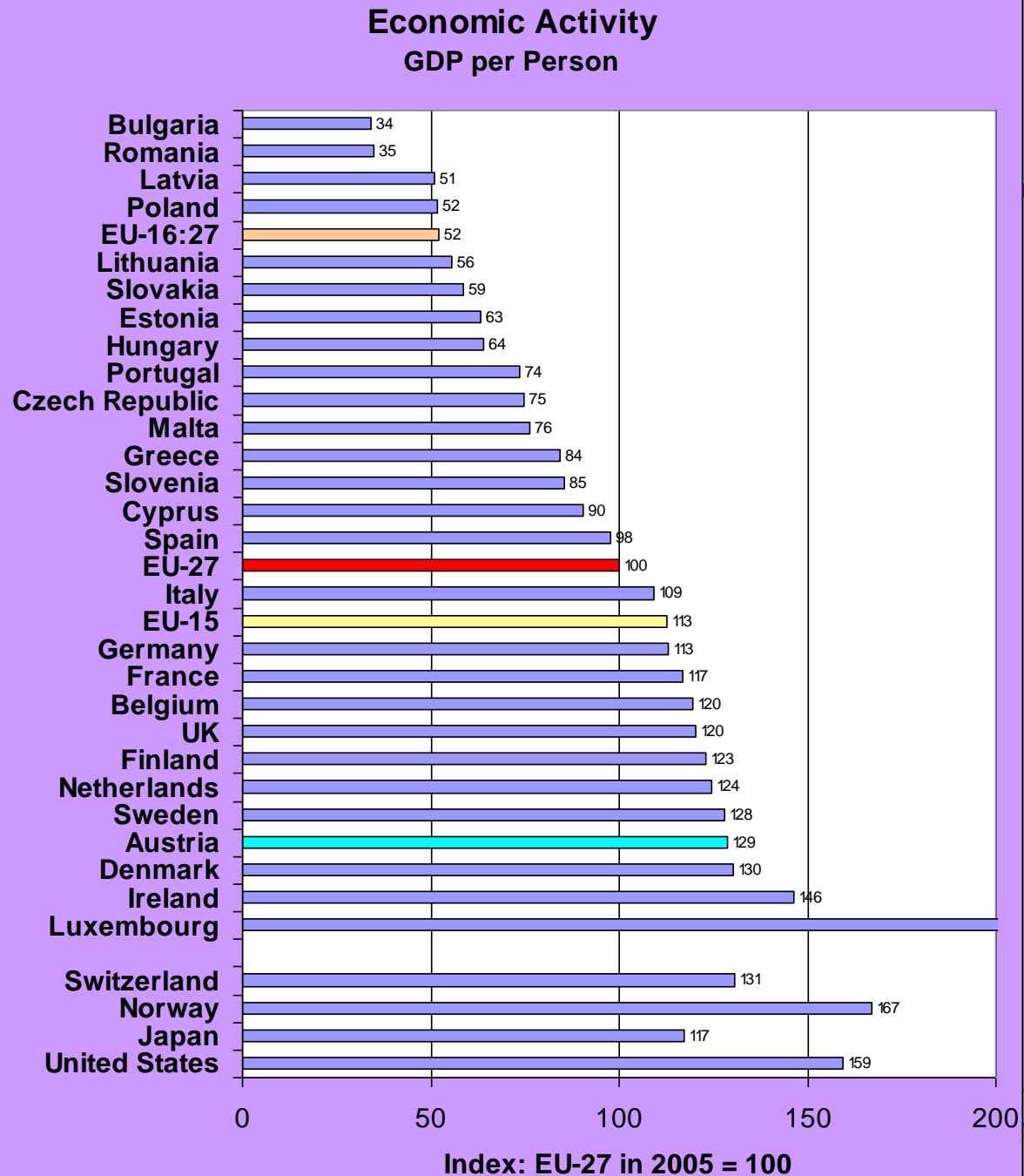
- **The ambitious EU Targets for 2020**
 - **Minus 20 percent GHG emissions over 1990 - unilateral**
 - **Minus 30 percent GHG emissions over 1990 – multilateral**
 - **20 percent increase of energy productivity – over BaU**
 - **20 percent share of renewables**
- **How to allocate these community targets to the Member States**
 - **Target or effort sharing**

A structural model of the energy sector



Economic activity

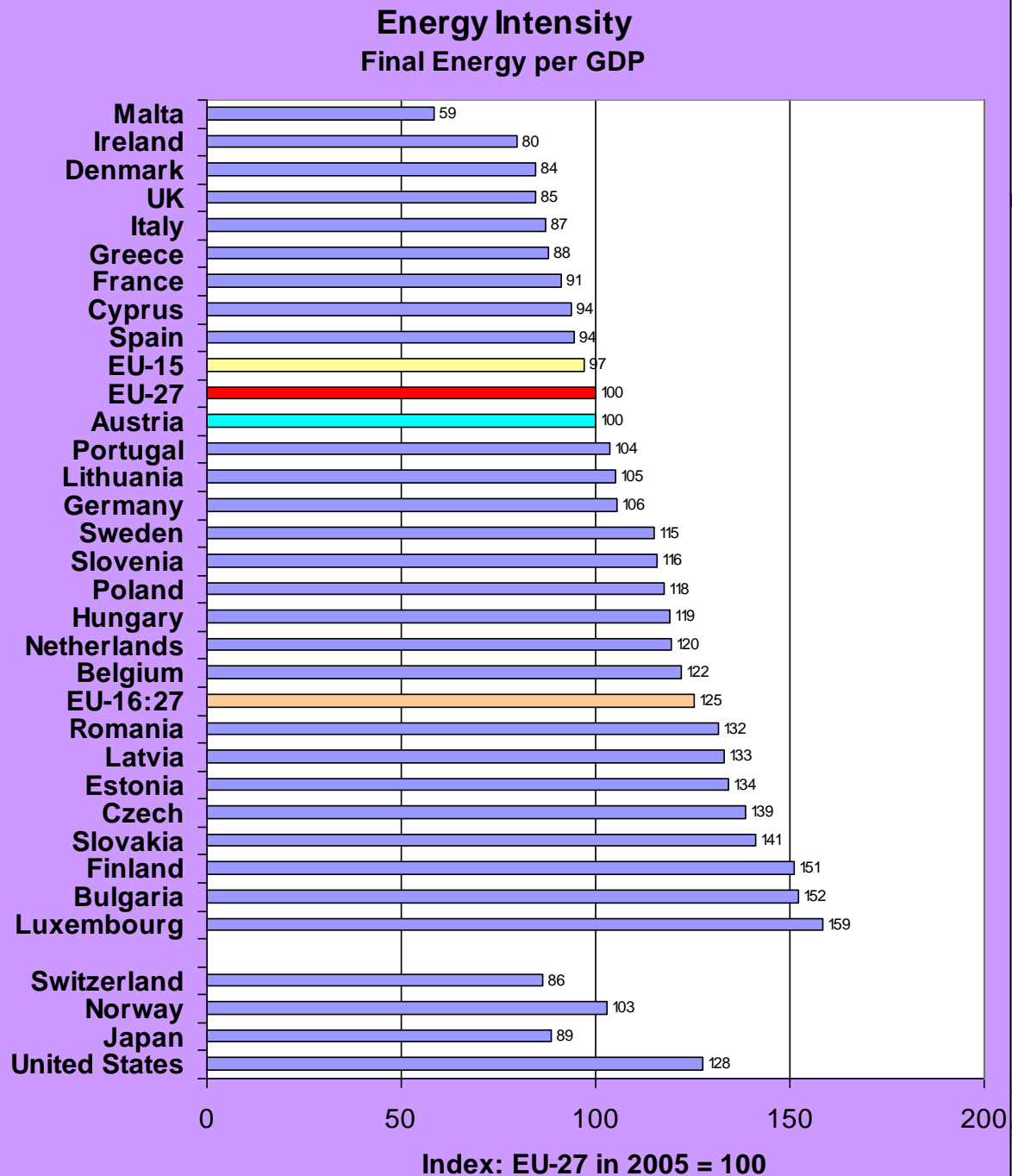
GDP per Person



EU Target Sharing 2020

Energy intensity

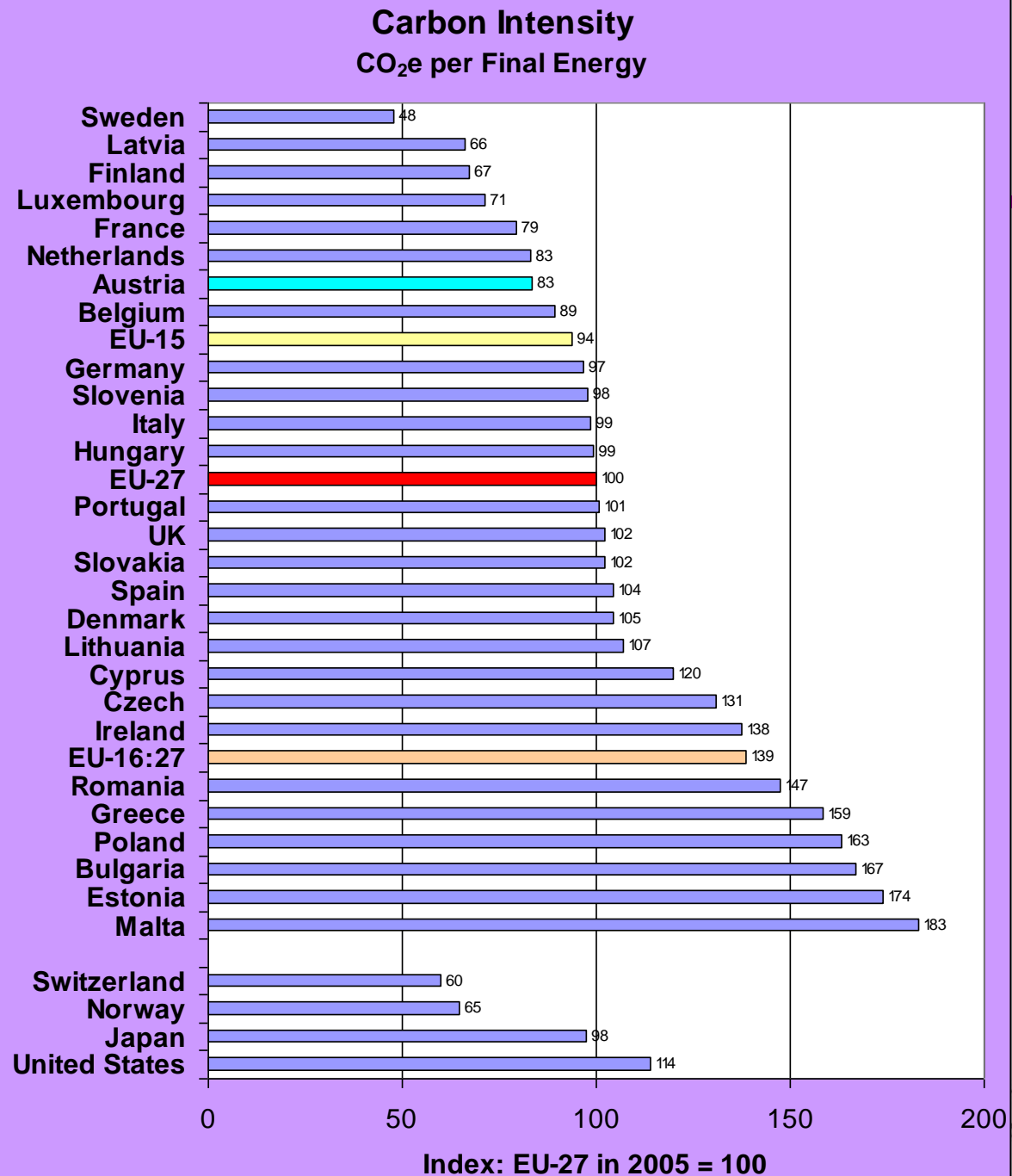
Final Energy per GDP



EU Target Sharing 2020

Carbon intensity

CO2e per Final Energy



EU Target Sharing 2020

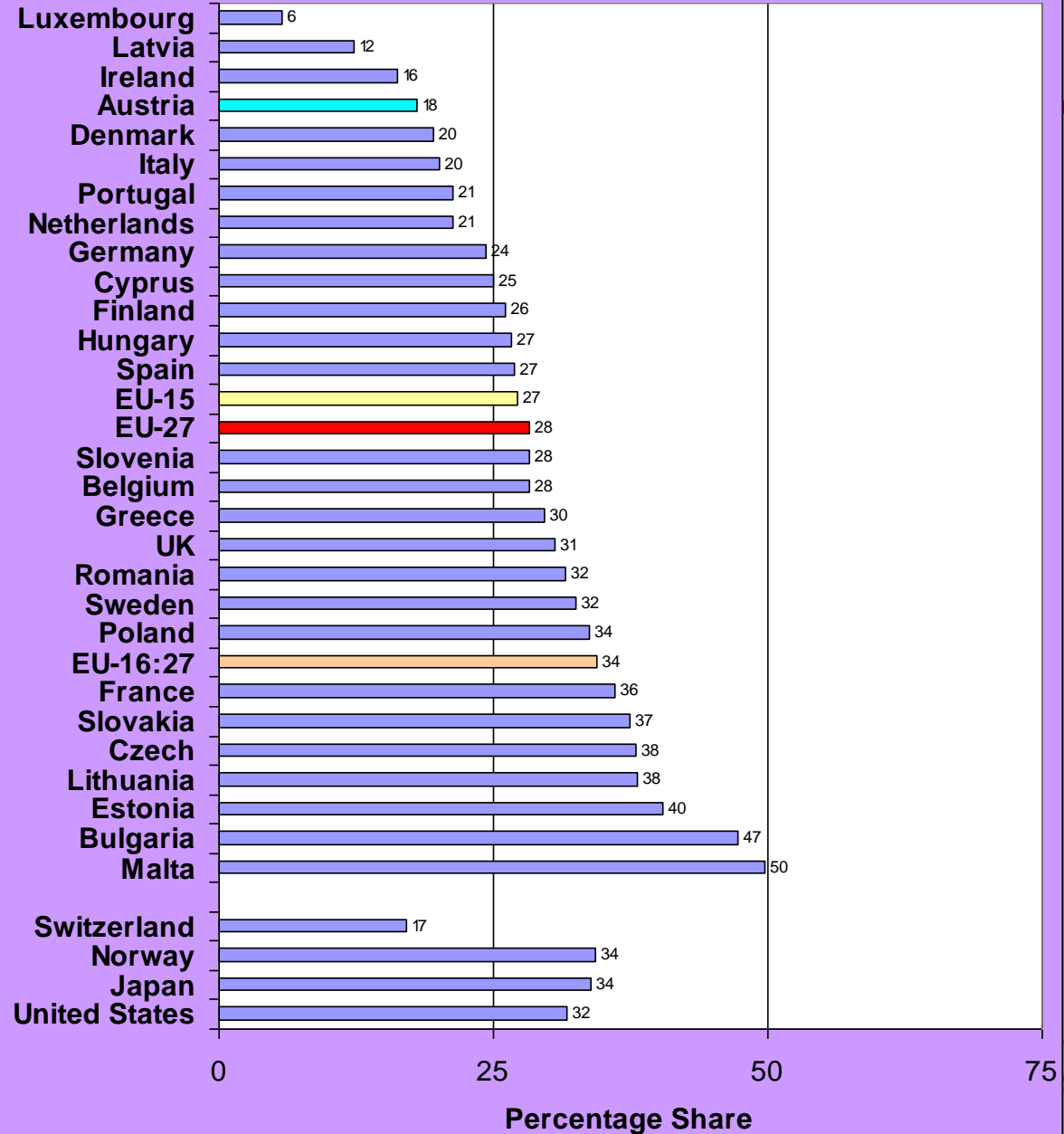
Share of Losses

$$100 - \frac{\text{Final Energy}}{\text{Energy Supply}} * 100$$

EU Target Sharing 2020

Transformation and Distribution Losses

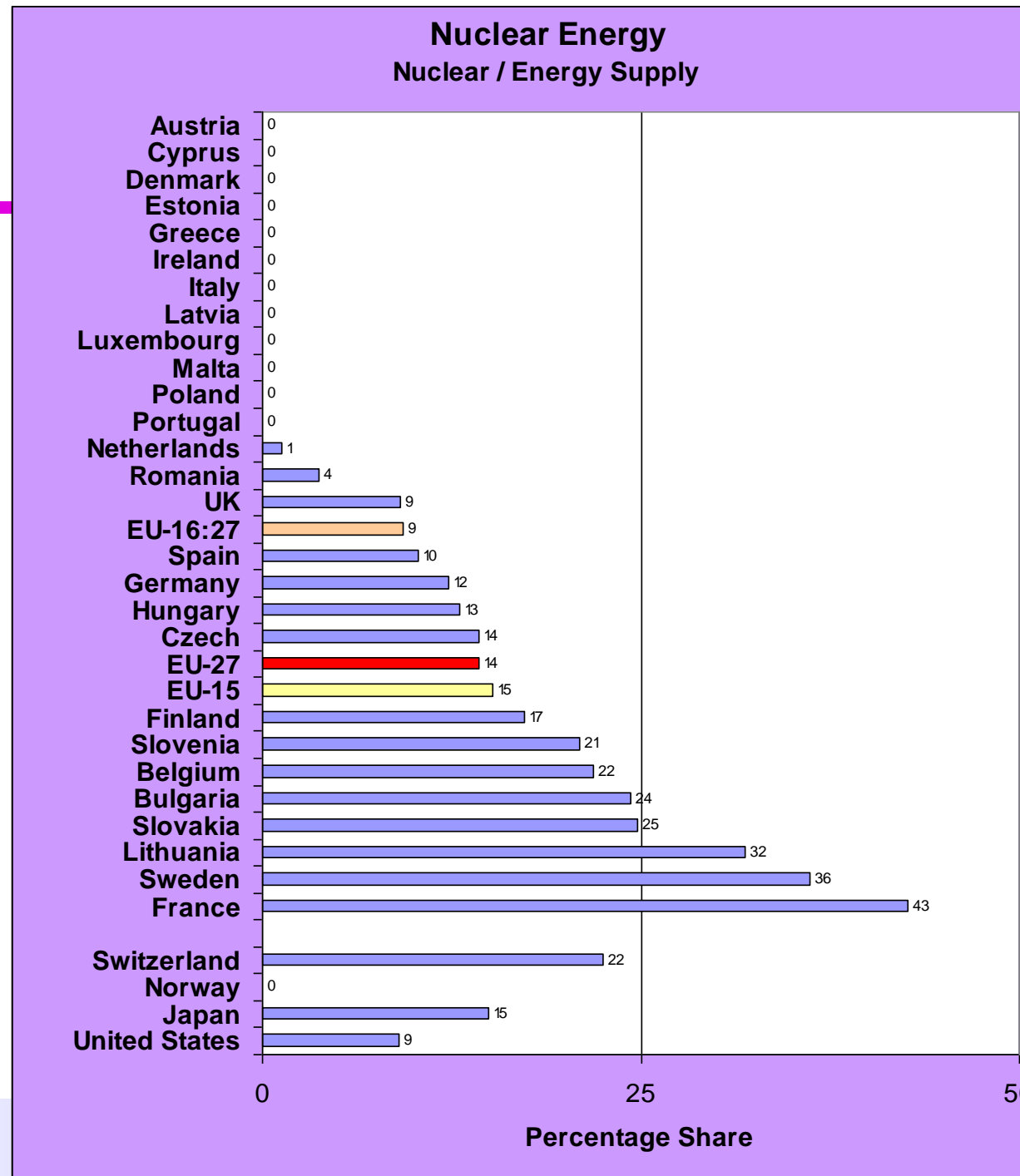
Final Energy / Energy Supply



Share of Nuclear

$\frac{\text{(Nuclear)}}{\text{(Energy Supply)}} \times 100$

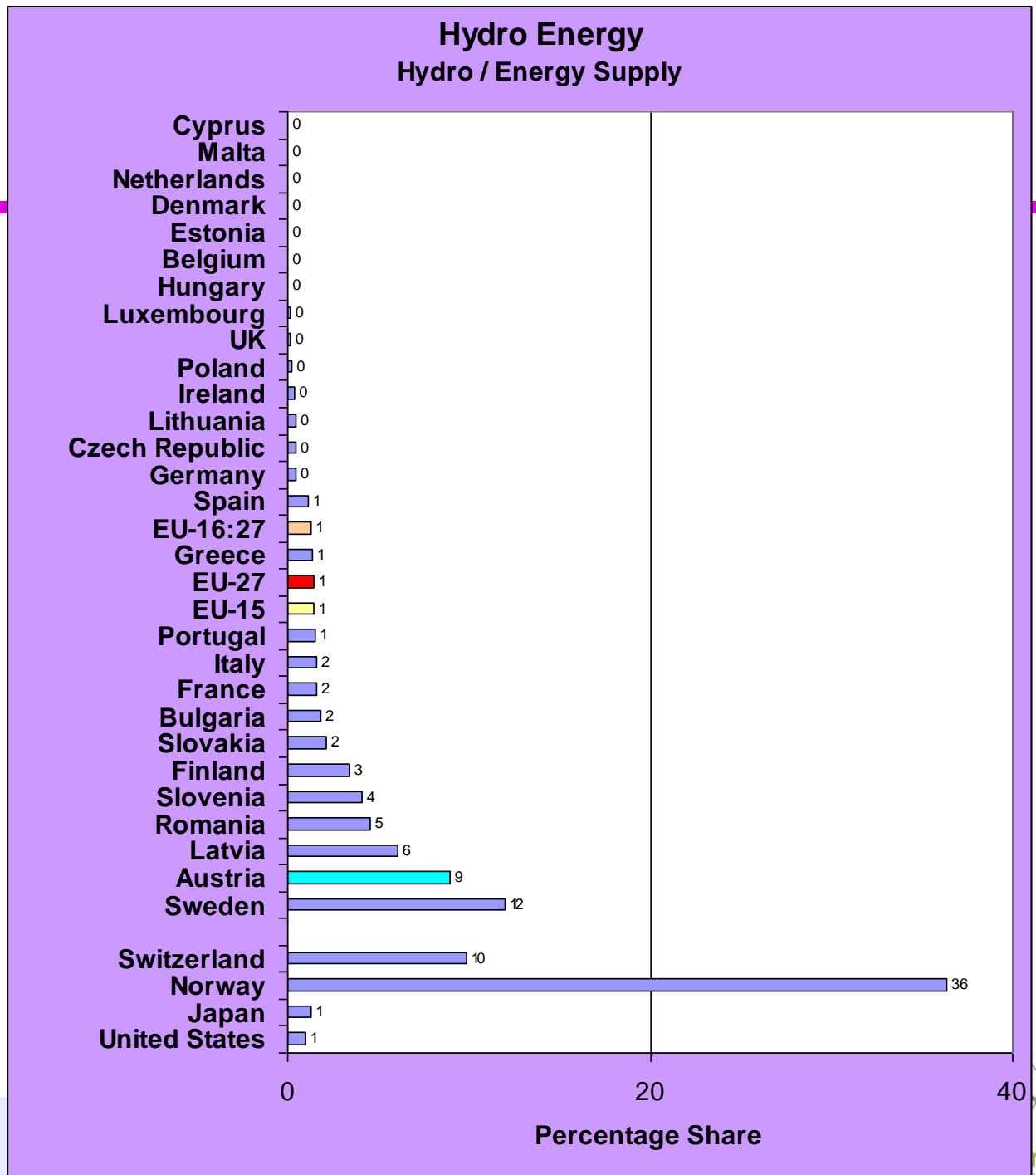
EU Target Sharing 2020



Share of Hydro

$$\frac{\text{Hydro}}{\text{Energy Supply}} \times 100$$

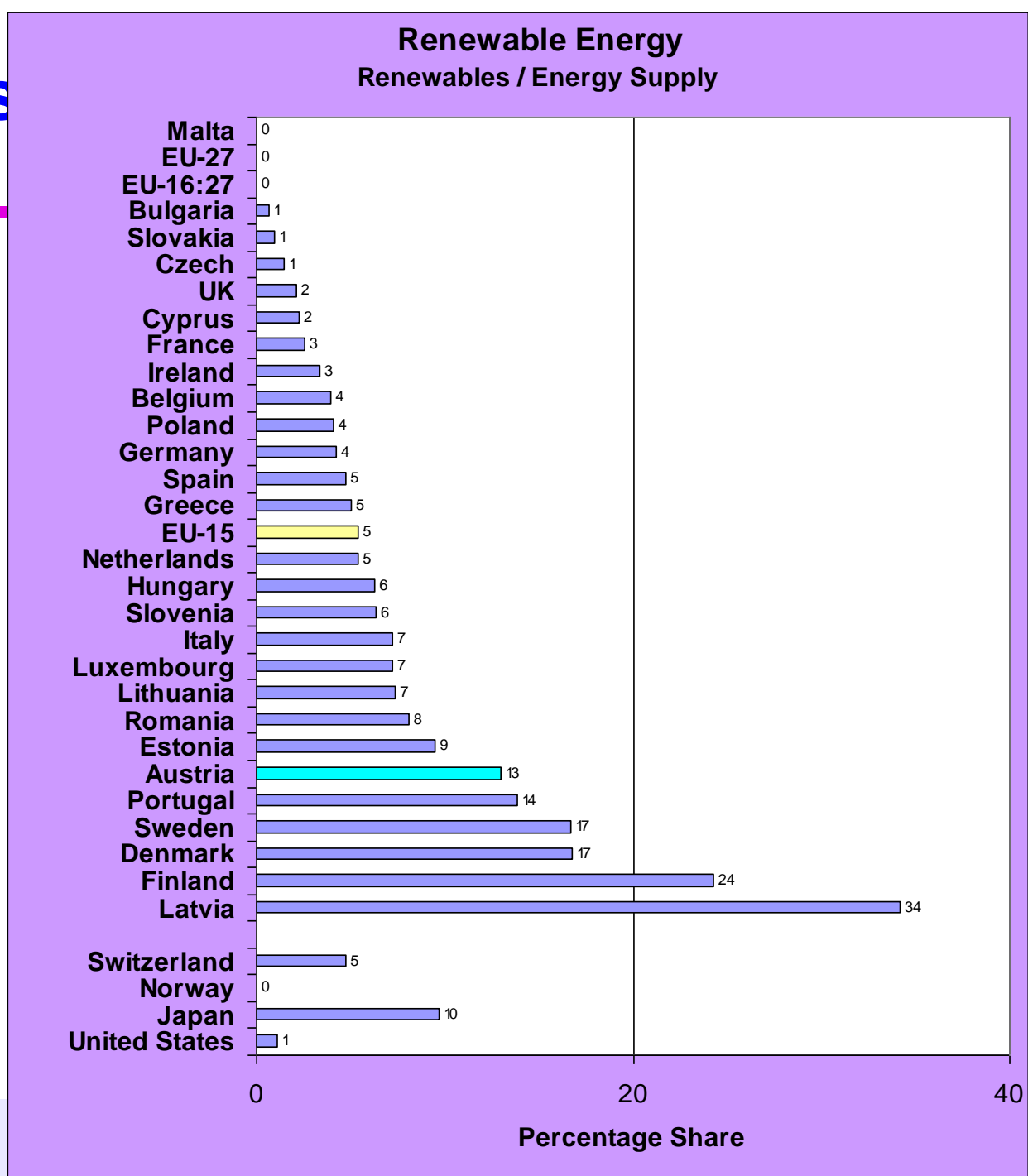
EU Target Sharing 2020



Share of Renewables

$\frac{\text{(Renewables)}}{\text{(Energy Supply)}} \times 100$

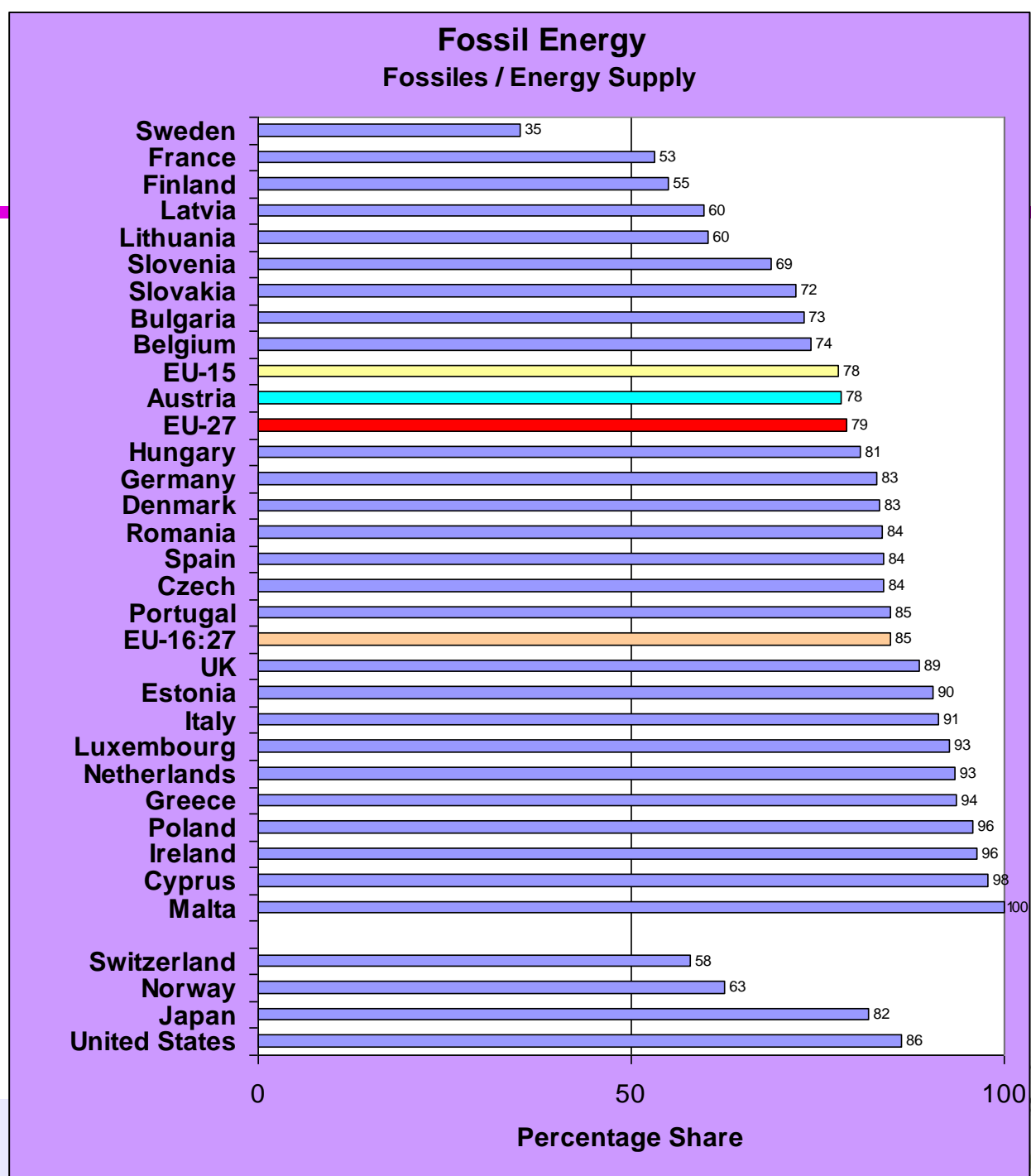
EU Target Sharing 2020



Share of Fossils

$\frac{\text{(Fossils)}}{\text{(Energy Supply)}} \times 100$

EU Target Sharing 2020

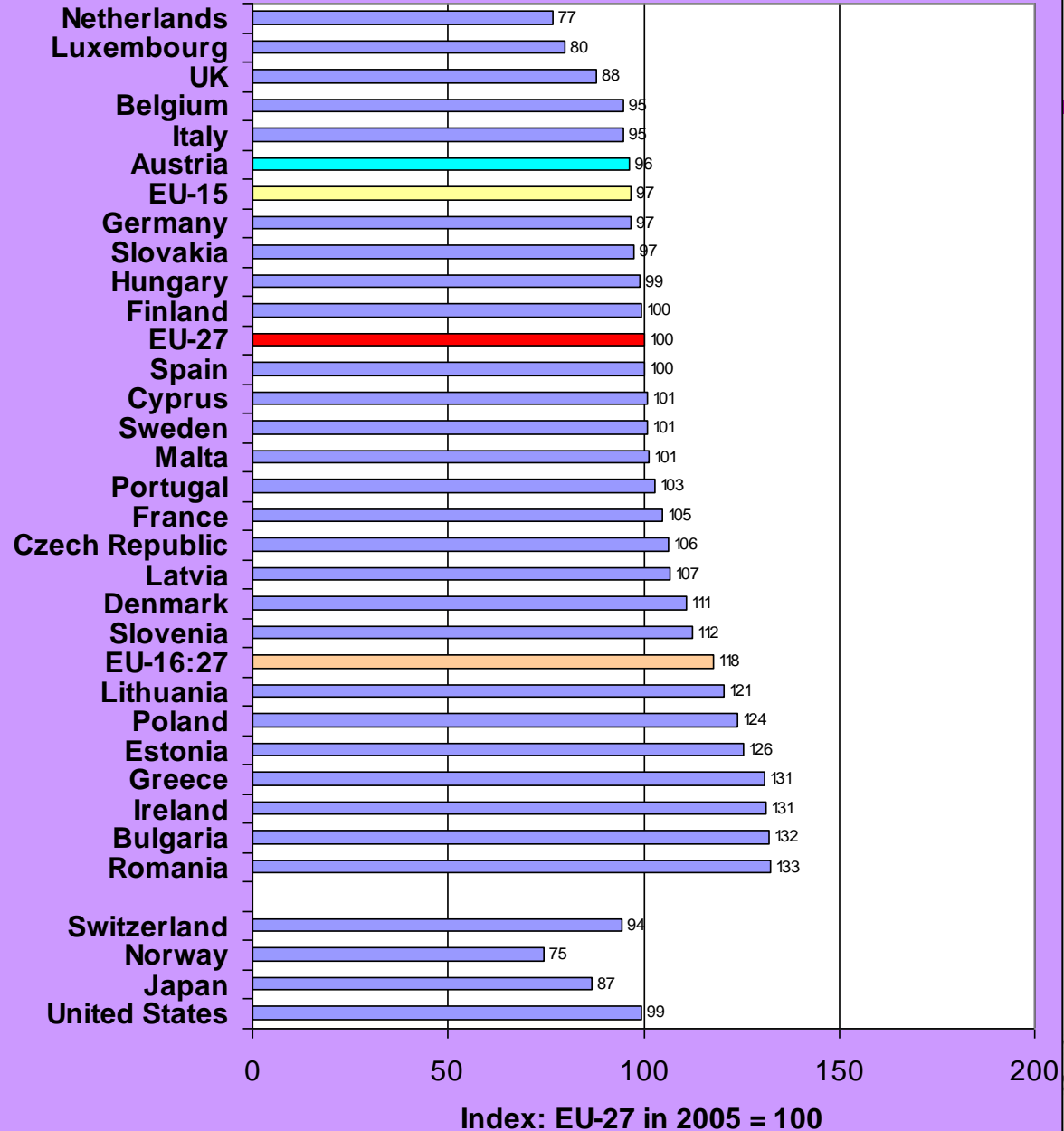


Carbon intensity of Fossils

(CO₂) / (Fossils)

Carbon Intensity of Fossil Energy

CO₂e per Fossil Energy



EU Target Sharing 2020

The policy decisions

- To what extent to we want

contraction – to common targets (e.g. for renewables)

convergence – to such a target