

European approach to system development: TYNDP (ten-year network development plan)

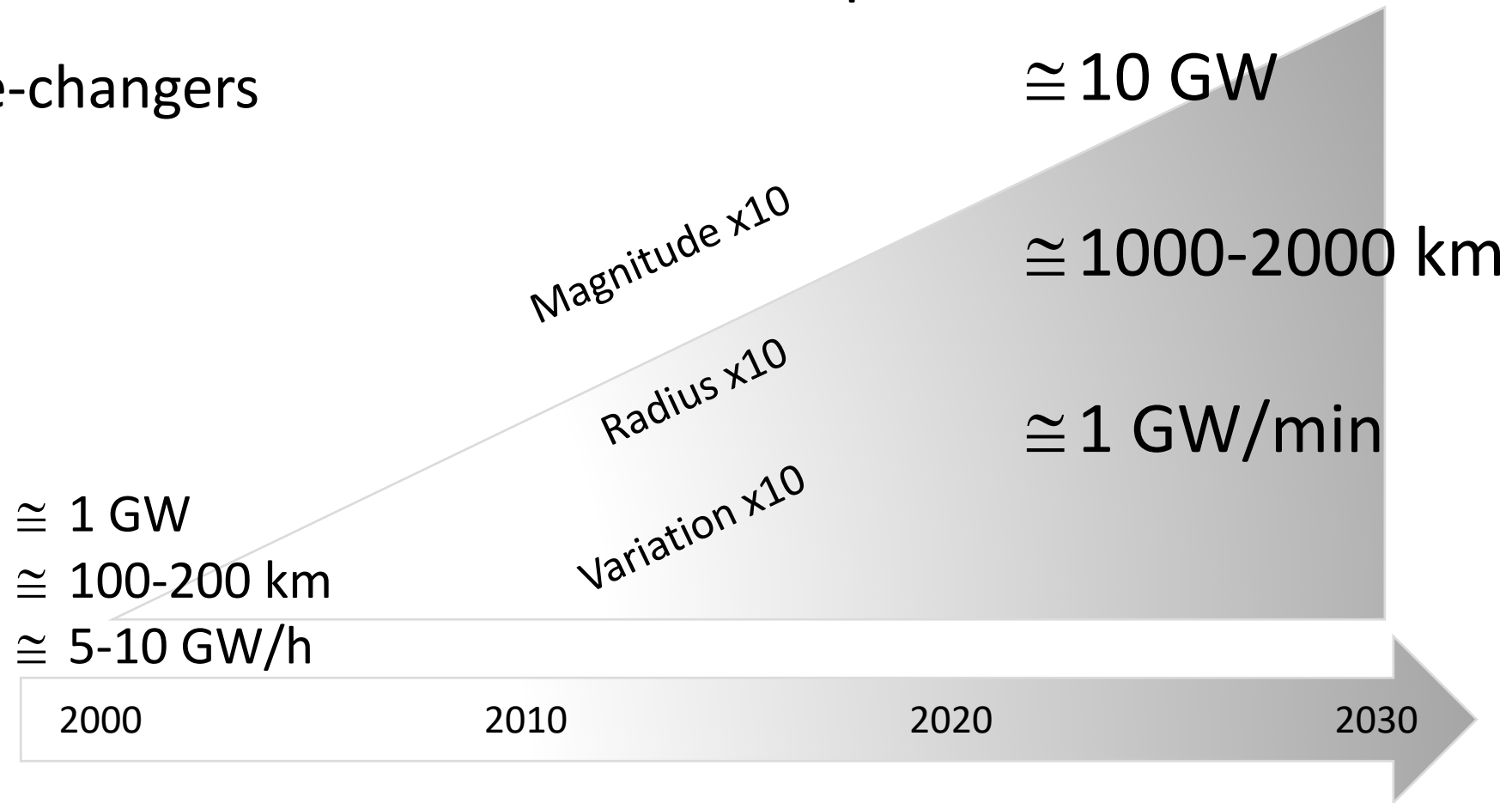
Solid bases for RES growth

- 500 millions Europeans
 - High living standards
 - Huge energy imports
- Fossil fuel & raw material prices can only rise
 - 10 billion + raising living standards worldwide
 - Climate change & CO2 prices
- All electricity sources today competitive, incl. RES
- Oil $\cong 100 \$_{2010}/\text{bl}$, Electricity_{EU} $\cong 100 \text{ €}_{2010}/\text{MWh}$

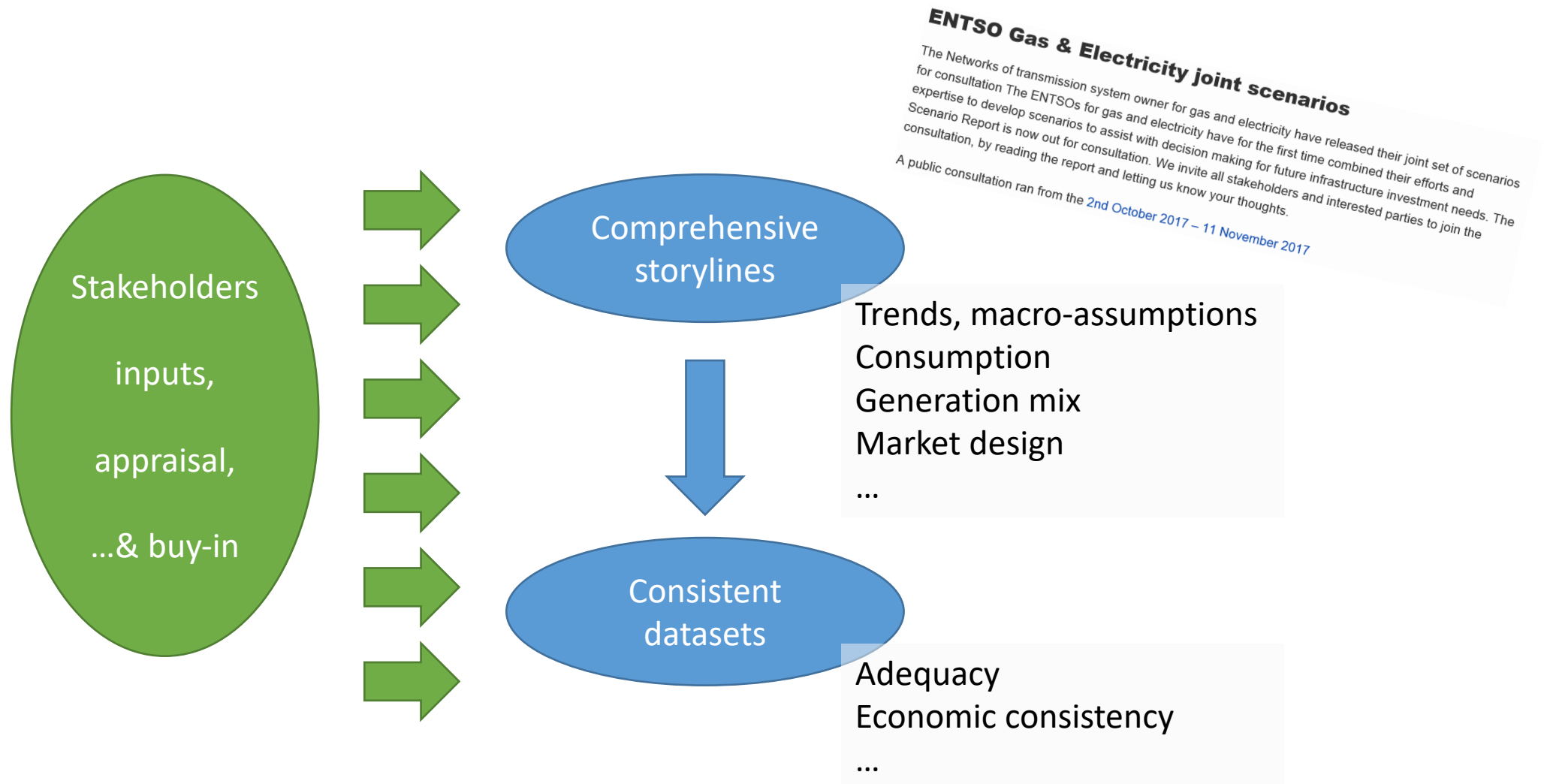


With RES, stronger, longer, more volatile power flows across Europe

3 game-changers

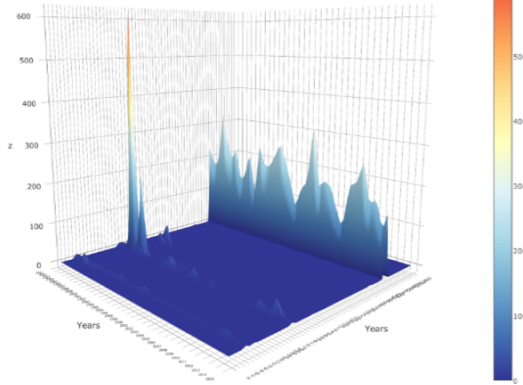


Contrasted scenarios to explore the future

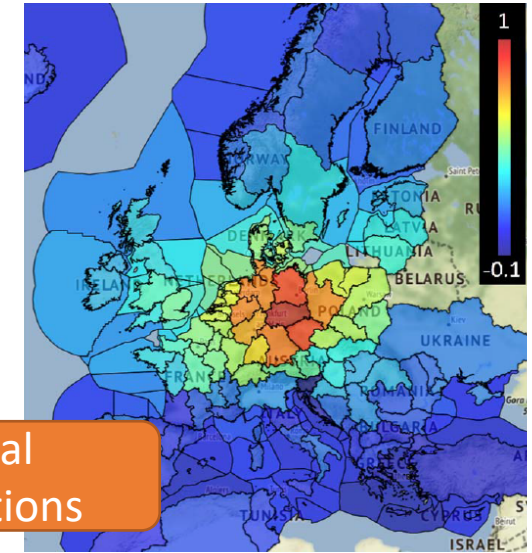


Upcoming power system issues

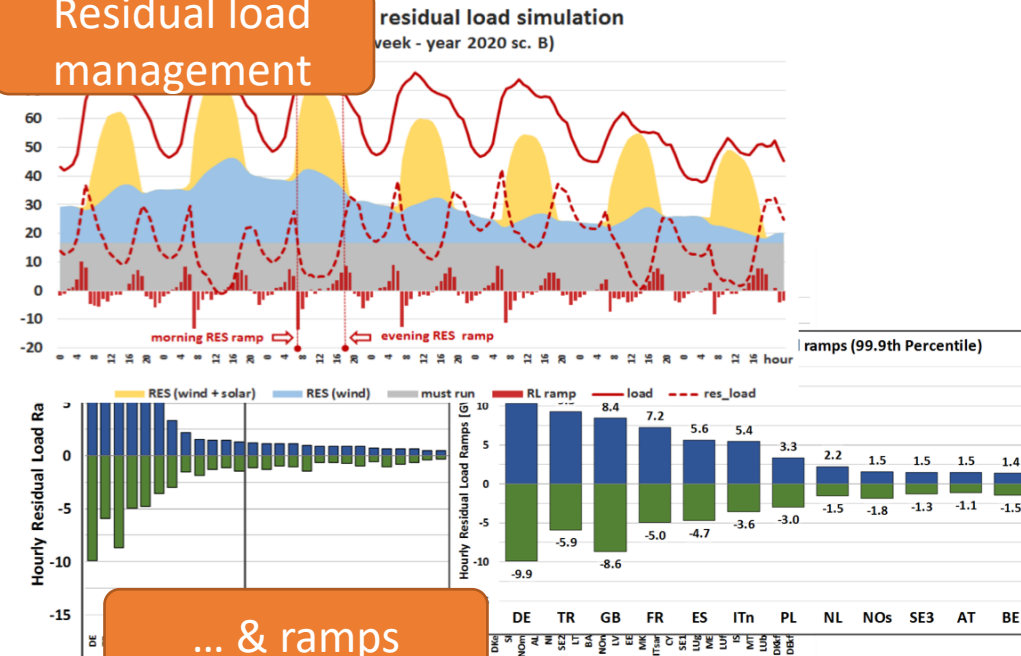
Adequacy



Spatial interactions

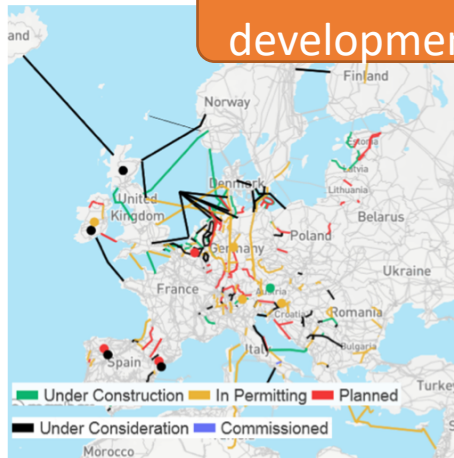


Residual load management

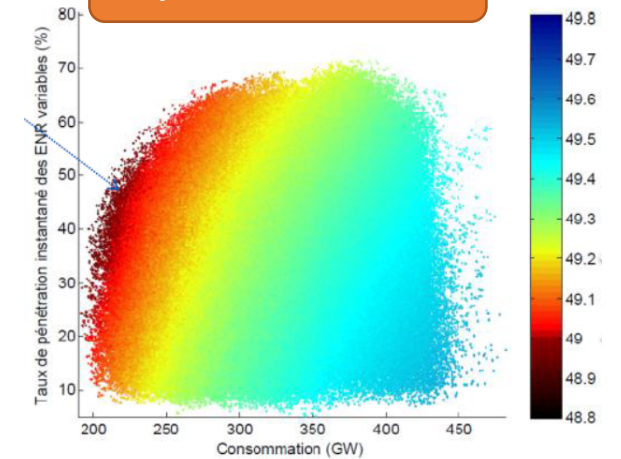


... & ramps

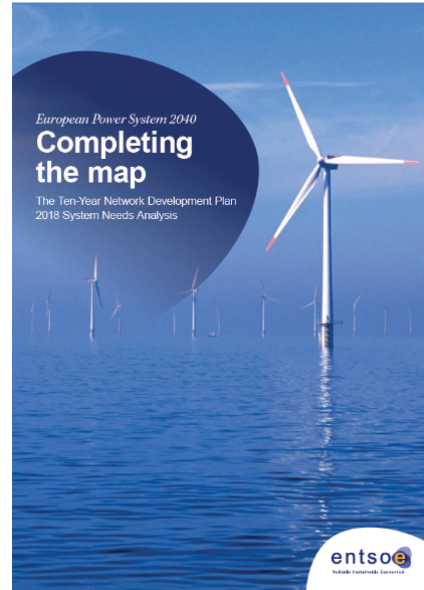
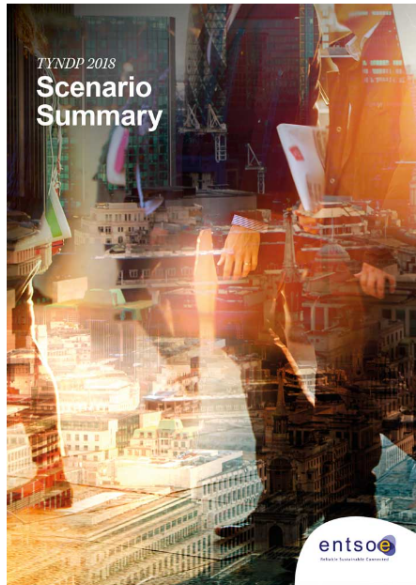
Grid development



System inertia...



Contribute to the TYNDP !



*By 2nd March, please contribute
to the public consultation on
Identification of System Needs
2040 !*

A night view of Earth from space, showing the illuminated continents of Europe and Africa against a dark blue background filled with stars. The text "Thank you !" is centered over the image.

Thank you !