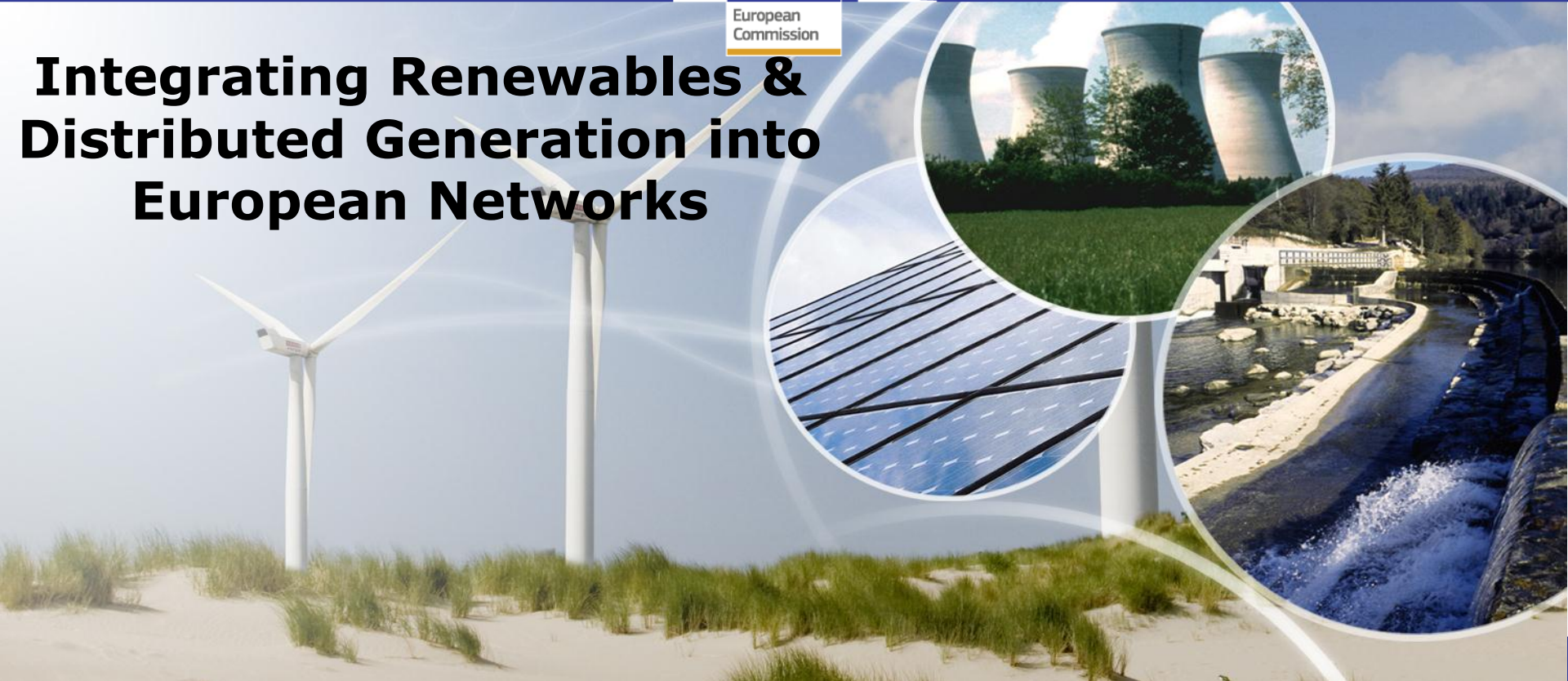




European
Commission

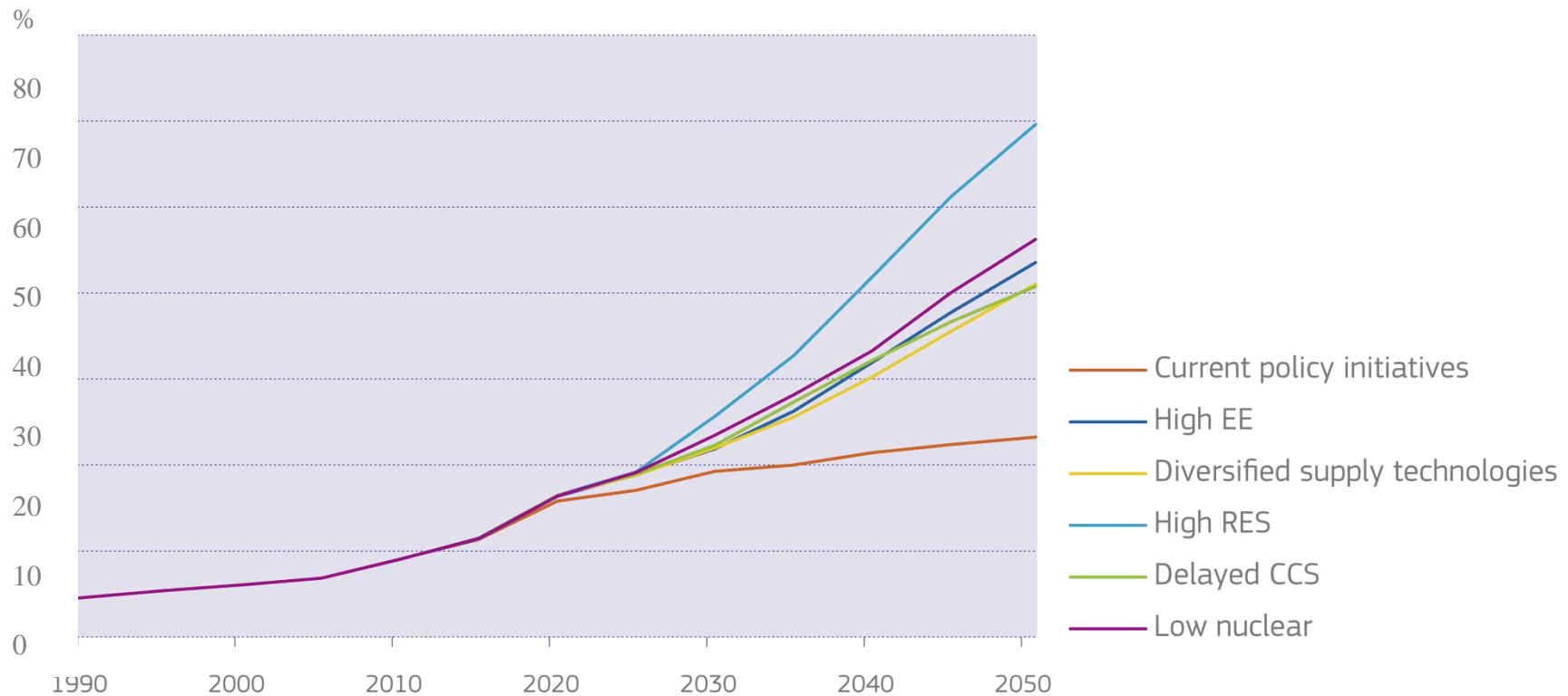
Integrating Renewables & Distributed Generation into European Networks



The European energy strategy: what's already on the table?

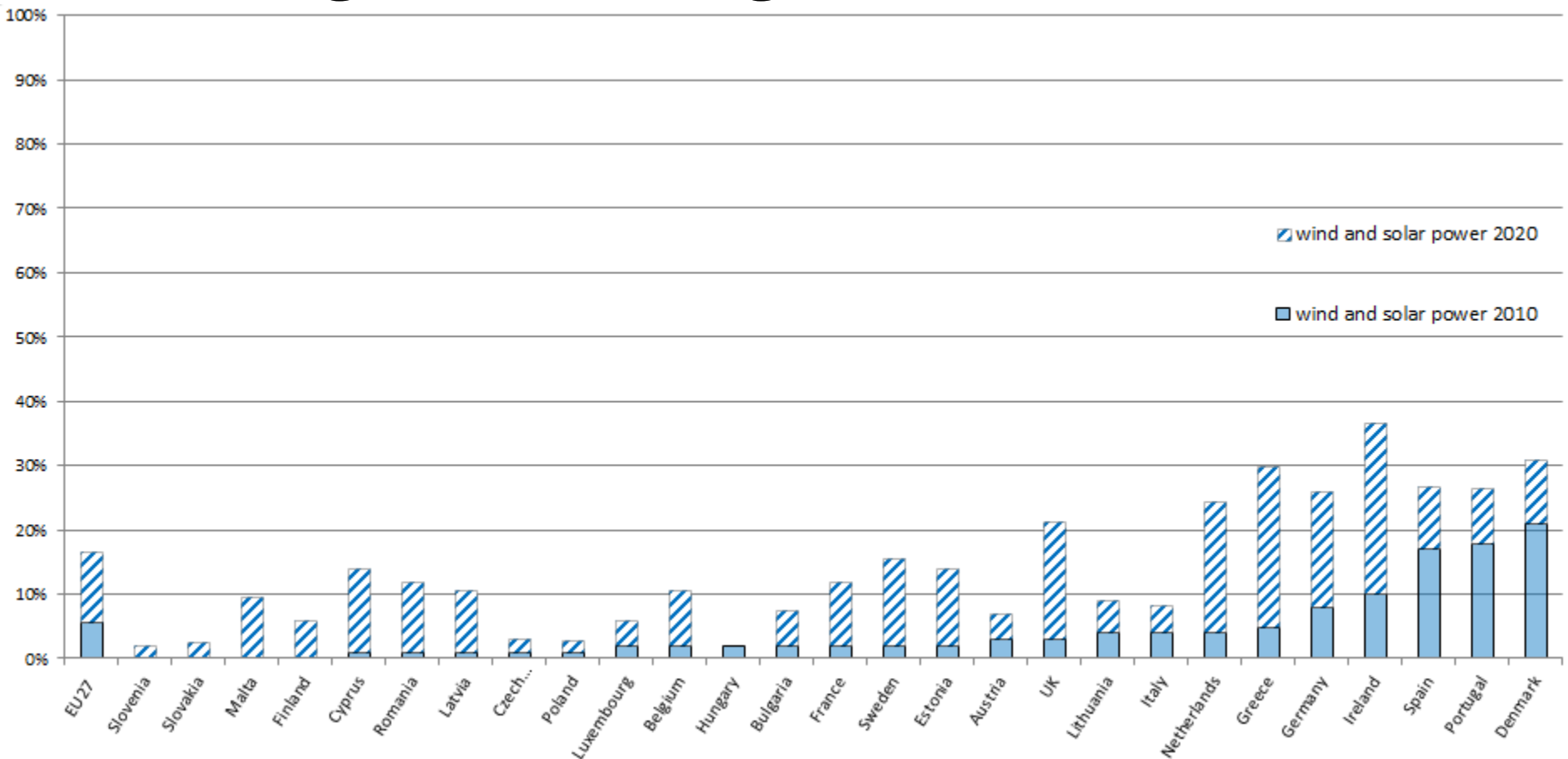
- Renewables Directive, expected to result in EU wind and solar electricity shares rising from 5% to 17% (overall electricity from 19% to 34%)
- ETS, reflecting a carbon price to achieve the cap.
- National (non ETS) emissions reductions strategies and measures
- 3rd package: unbundling, harmonised grid operation rules, network codes etc.
- TEN-E priorities and project support
- Infrastructure package: CEF proposal, planning reforms
- Smart grids
- Energy Efficiency Measures (including ESCOs)
- SET plan/R&D
- Institutionally: ENTSOs, ACER, CEER...
- Development of the longer term framework: 2050, 2030...

- The share of renewables rises steadily over time*



The share of RES achieves at least 55% in gross final energy consumption in 2050, up 45 percentage points from today's level at around 10%.

Planning, and learning from others



Grid connection, operation and development barriers still need to be addressed...

(Final report: http://www.eclareon.eu/sites/default/files/res_integration_final_report.pdf)



Positive
Neutral
Negative

connection

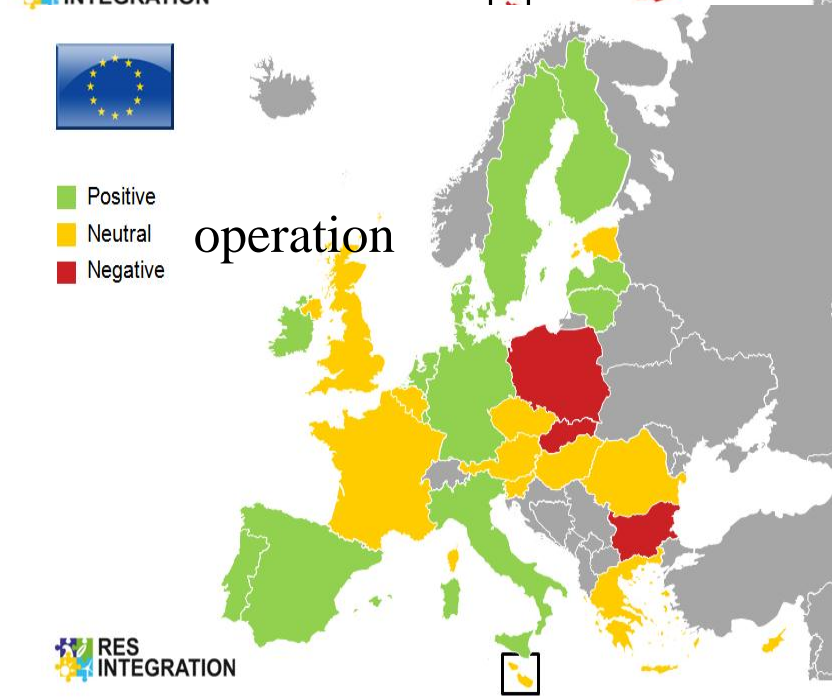
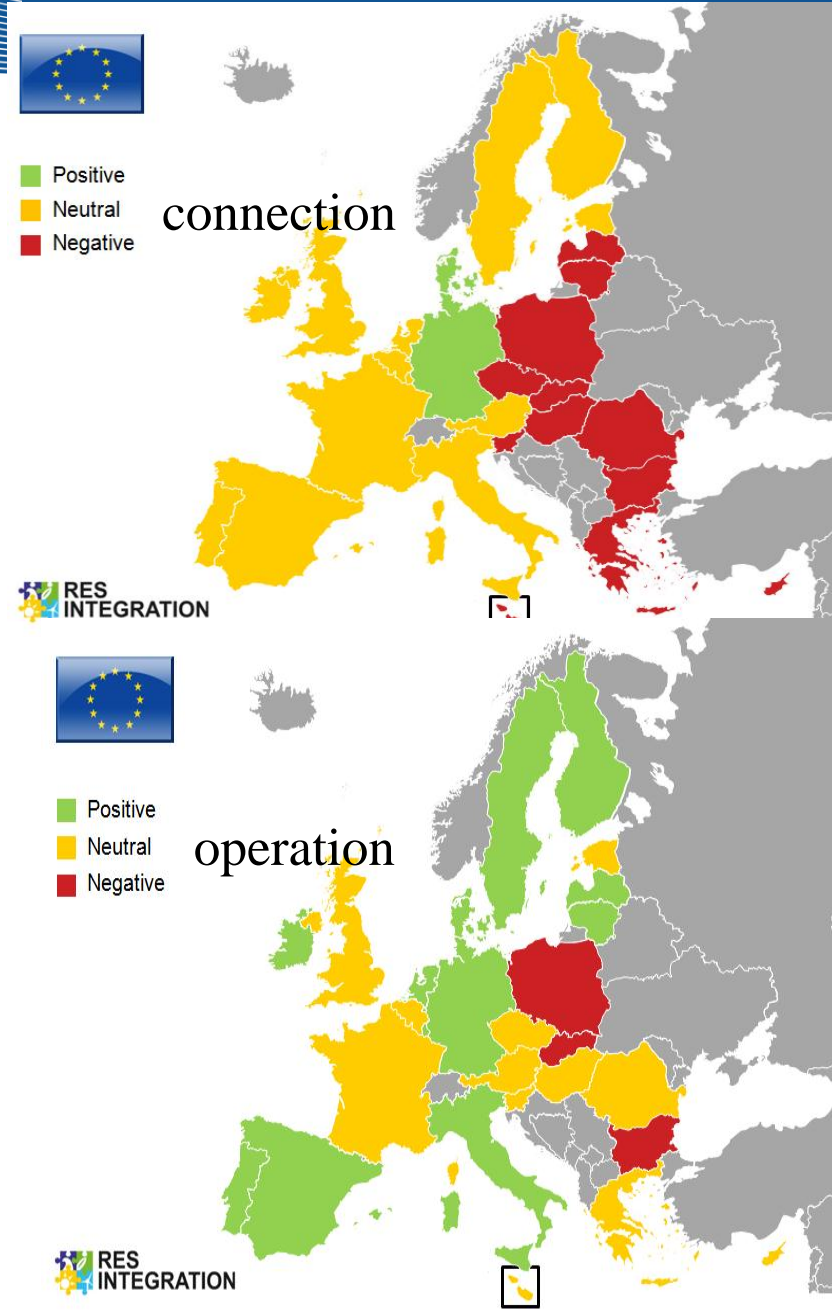
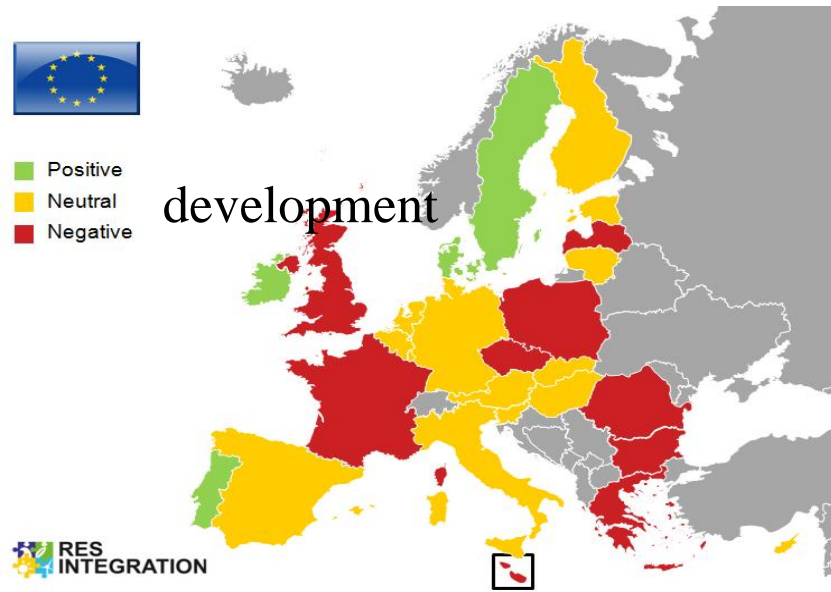
RES
INTEGRATION



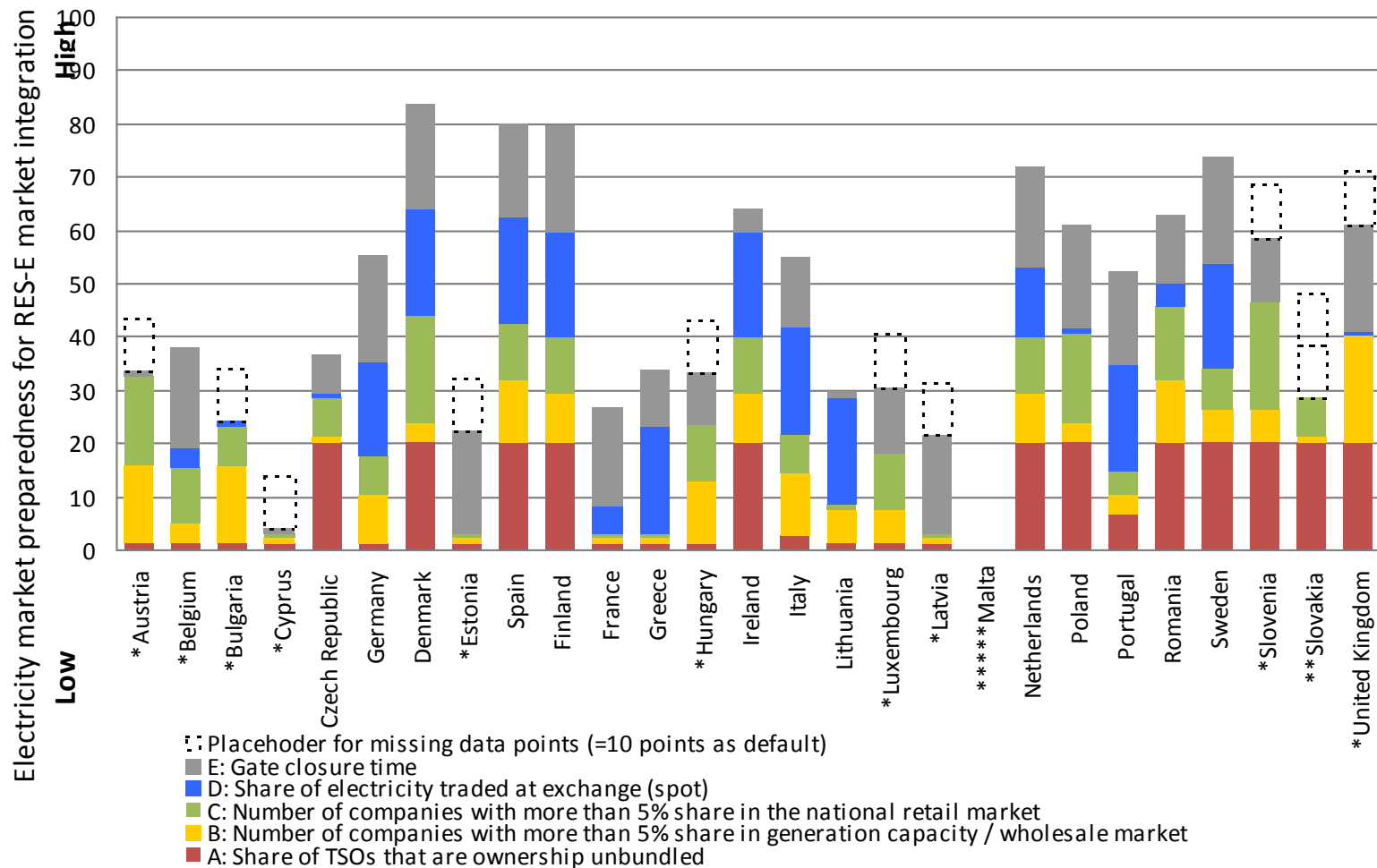
Positive
Neutral
Negative

operation

RES
INTEGRATION



Readiness for market integration: are the regulatory & competition conditions right for exposing renewable energy producers to market risk? (premiums, quotas)



What's key from the perspective of distributed generation?

- *Frequency issues resolved?*
- *Other technical concerns uncovered?*
- *Connection regimes, times & procedures clear?*
- *DS → TS flows possible everywhere?*
- *Own consumption/feed in payment regimes clear everywhere?*
- *Other operational issues uncovered?*
- *Detailed assessments of infrastructure implications? (more or less transmission?)*
- *Interactions with smart grid development clear?*
- *(pilots of) aggregators of DG?*
- *(pilots of) aggregator ESCOs?*

❖ *Once all this is taken care of... we'll be fine... lets discuss...*

http://ec.europa.eu/energy/renewables/index_en.htm

Thank you for your attention

