Regional Cooperation – Infrastructure Development and Operation

EU Energy Governance

30 April 2014, Berlin

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entsoe

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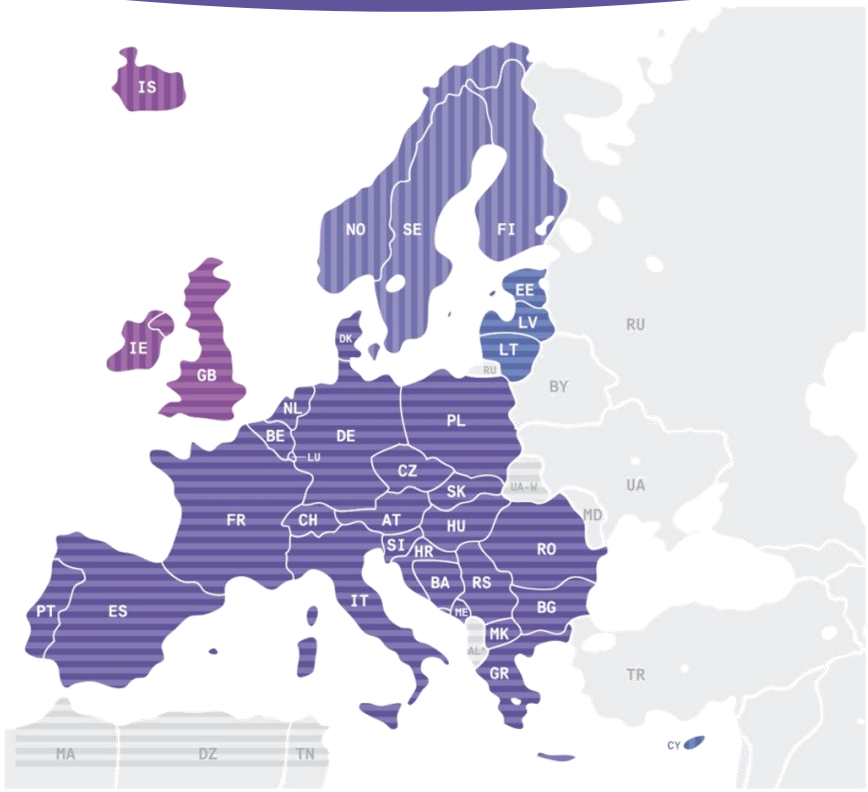
About ENTSO-E

41 **TSOs**
from 34 countries

532 **million**
citizens served

828 **GW**
generation

305 **Thousand Km**
of transmission lines



Ten-Year Network Development Plans

Adequacy forecasts

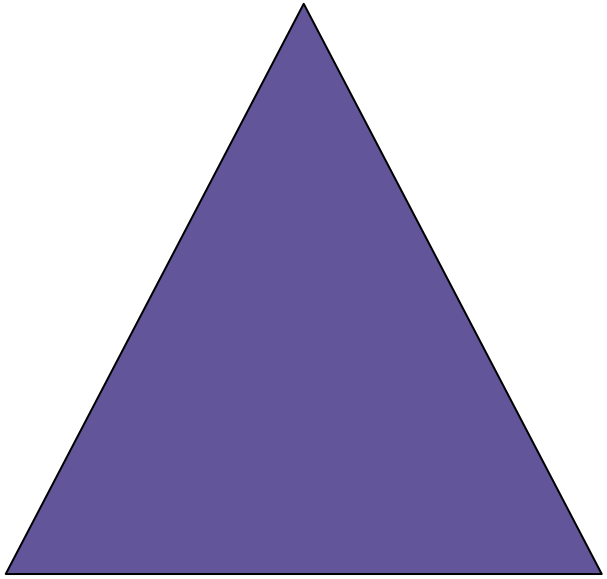
R&D plans

Tools for Market Integration

Network Codes

EU Targets for 2030

Binding CO_2 Reduction 40% compared to 1990

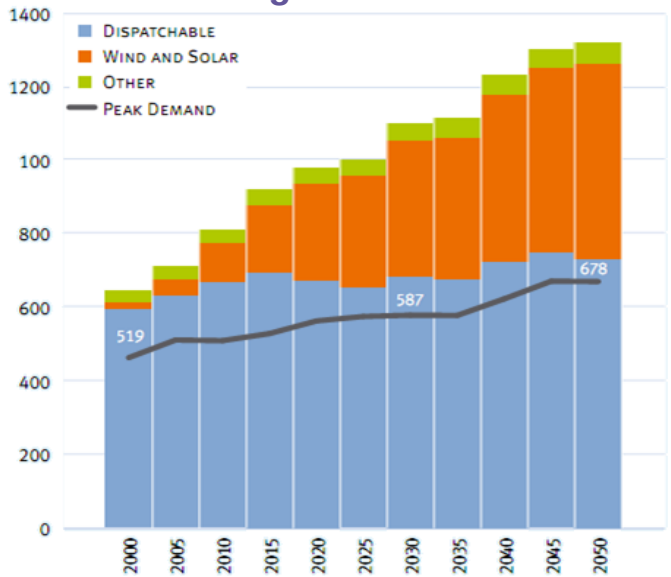


No binding targets for energy efficiency

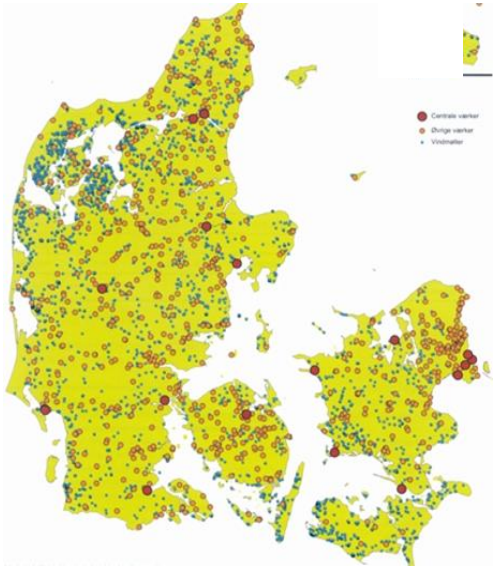
Binding EU-wide share of RES 27%

The challenges for TSOs

Variable generation



Thousands of small units



Huge flows all over Europe

Challenges

System Stability, Resource Variability, Uncertainty, New connections, Changed power flows

Need for Regional Cooperation

Background:

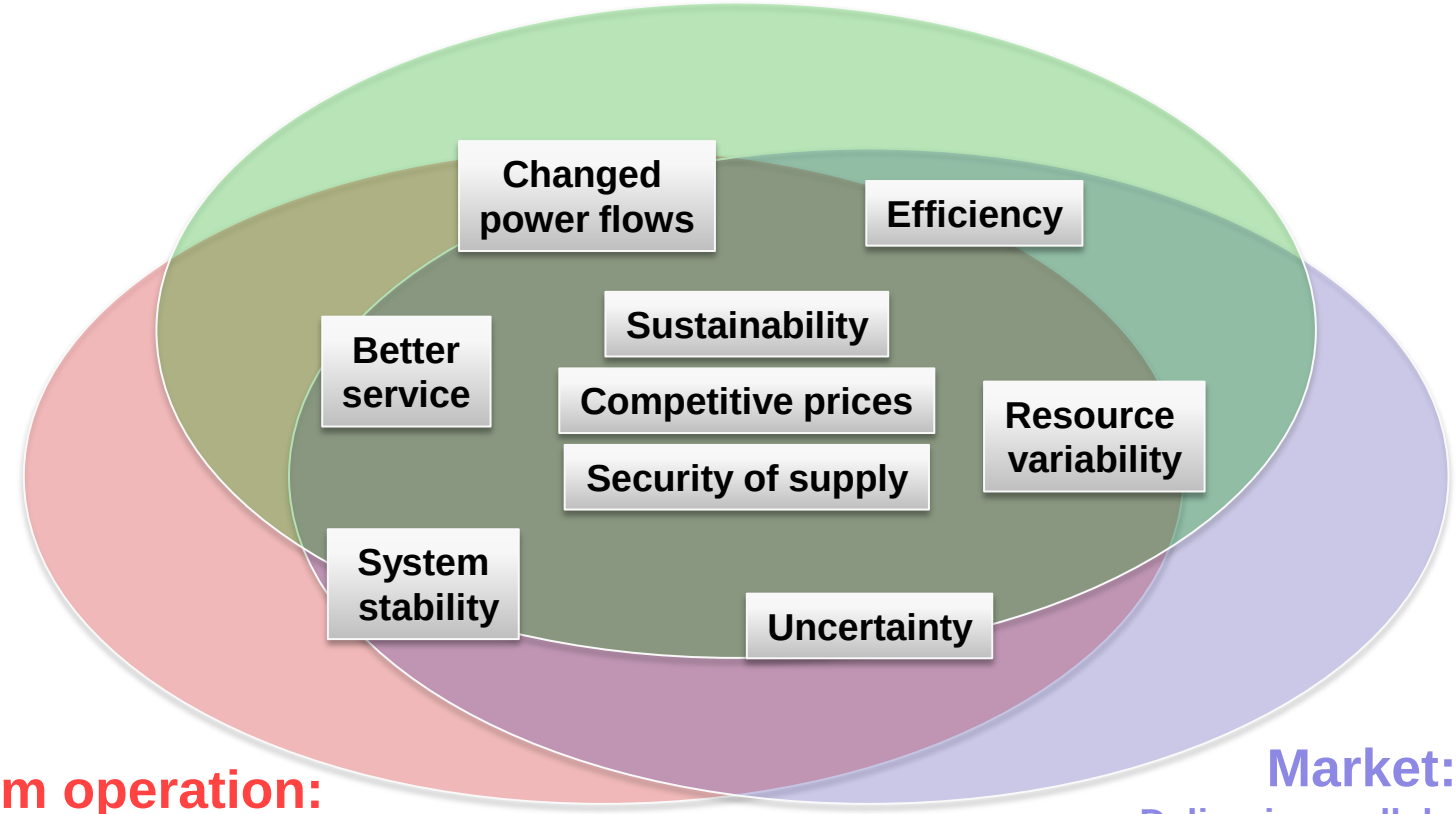
- Growing gap between high incentives for generation development from renewable energy sources (RES) and slow permitting processes/acceptance for new electricity lines.
- Grid development needed for common electricity market (Interconnectors and national network development plans)

Current Discussion:

- Present governance sets targets for national RES development. New governance sets generall targets for Europe.
- Inadequate consideration of different national starting positions and economic efficiency.

Three pillars of TSO co-operation

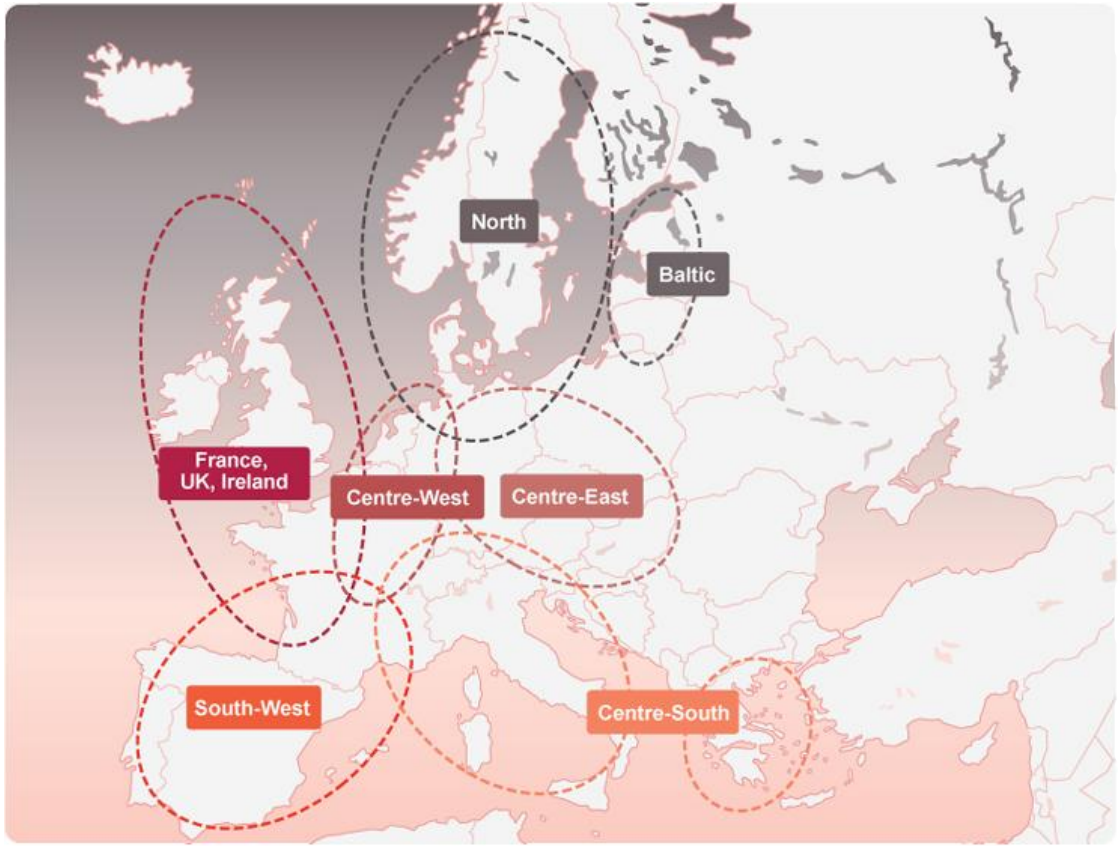
Infrastructure:
Delivering a fit for purpose network



System operation:
Delivering coordinated schemes

Market:
Delivering well designed pan-European markets

Regional Co-operation: Electricity Regional Initiatives



Central West Europe

- France, BeNeLux, Germany

France UK Ireland

Centre South Europe

- France, Italy, Switzerland, Germany, Austria, Slovenia, Greece

North

- Norway, Finland, Sweden, Denmark, Germany, Poland

Baltic

- Estonia, Lithuania, Latvia

South West Europe

- France, Spain, Portugal

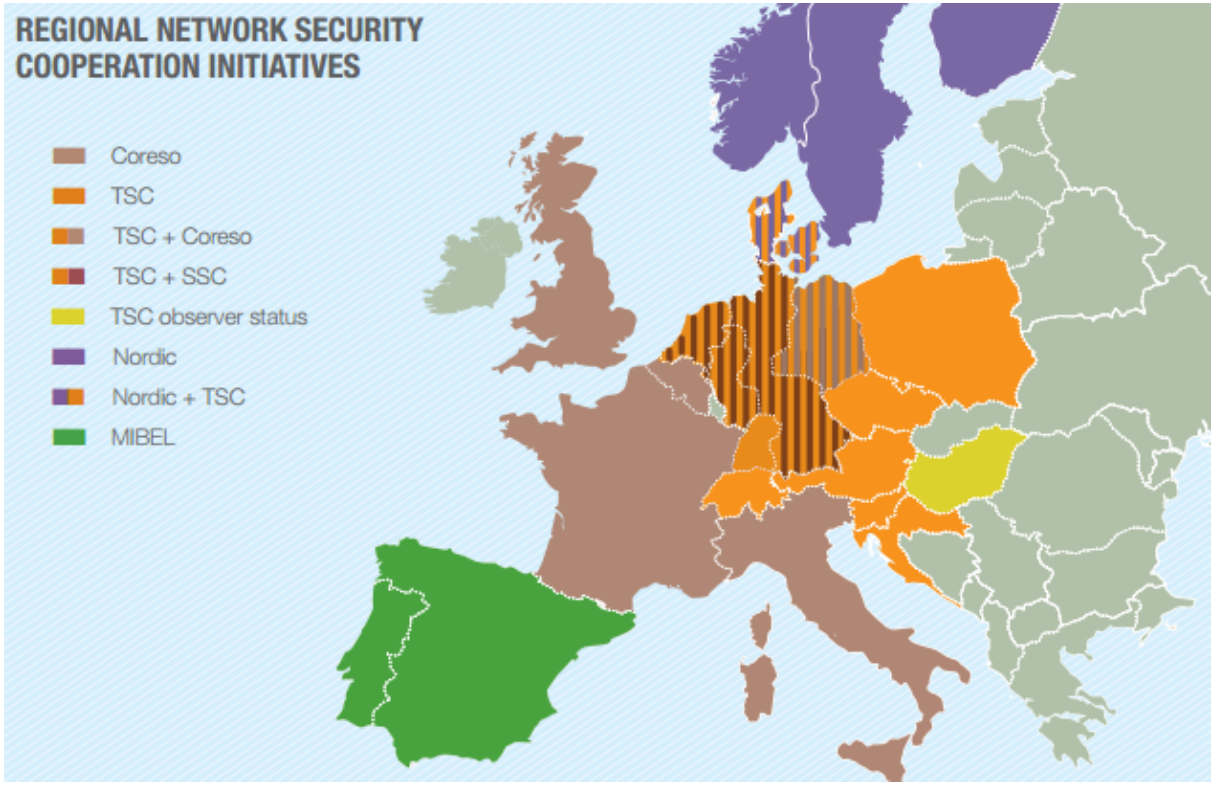
Central East Europe

- Germany, Poland, Austria, Czech Republic, Solvenia, Slovakia, Hungary

Central South Europe

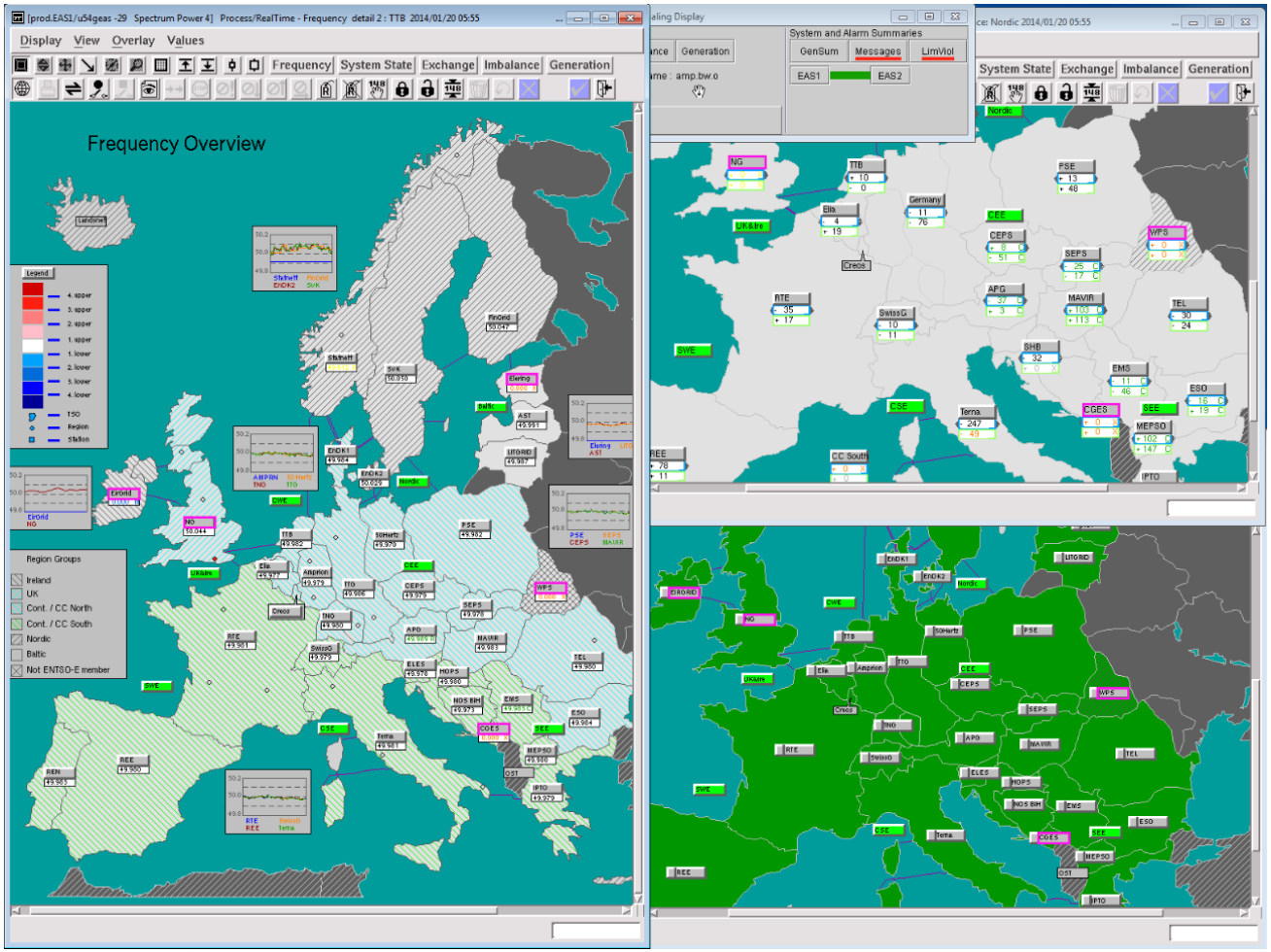
- France, Italy, Greece, Austria, Slovenia, Germany

Regional Security Cooperation Initiatives



Regional security coordination groups such as Coreso, SSC, TSC as well as initiatives through MIBEL and Nordic organisations continue to improve the security of the overall network and maximise the transmission capacity available to market participants.

ENTSO-E Awareness System (EAS)



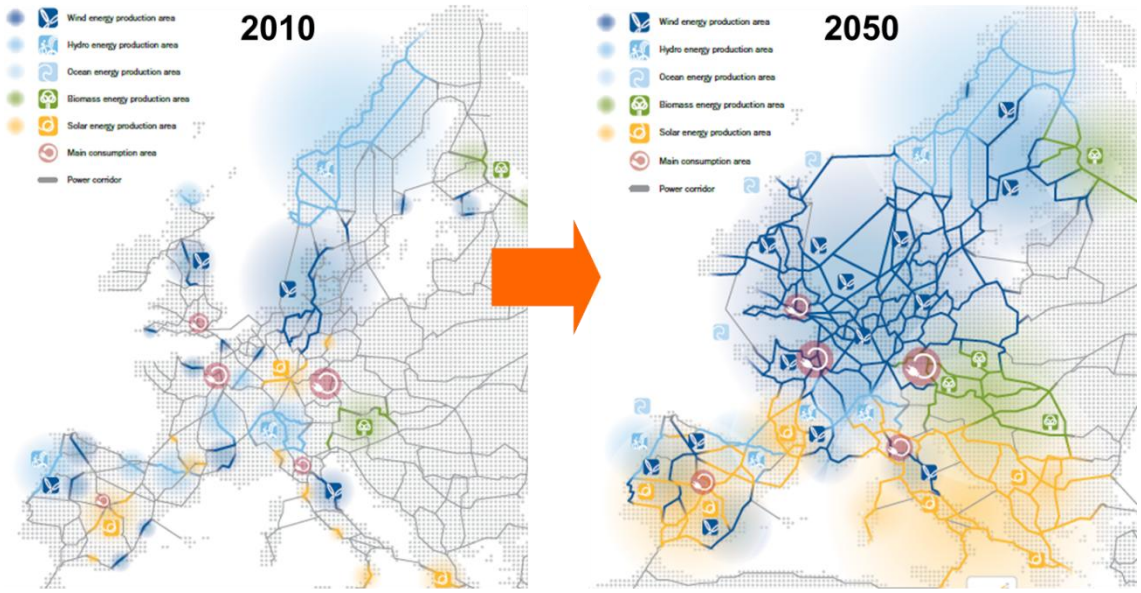
Go-live in April 2013, but building on decades of TSO cooperation

A pan-European view of the network

Real-time view of energy flow and the state of the network across Europe

An essential collaborative tool for TSOs in 32 countries

Grid development is essential to allow higher RES penetration



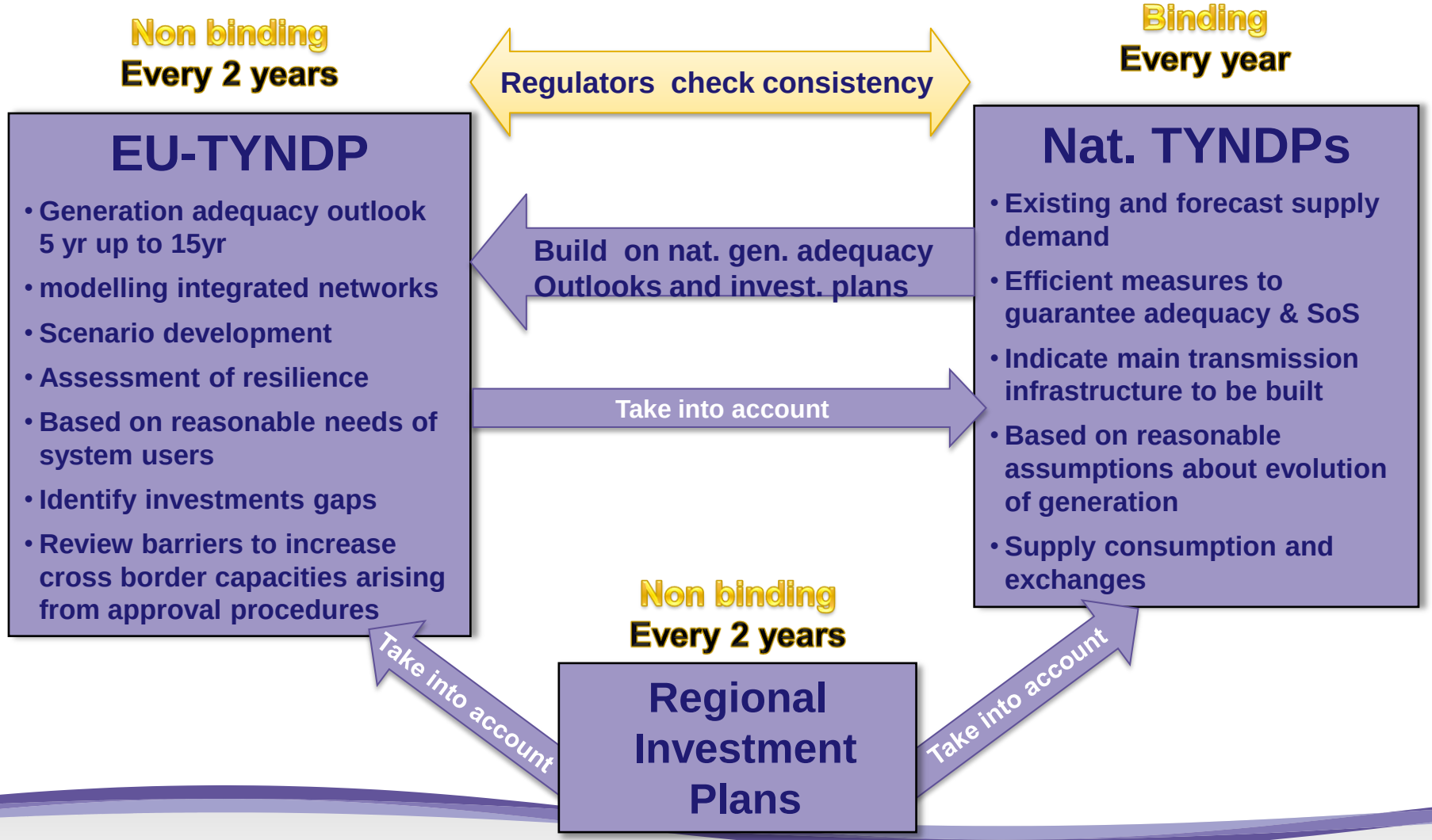
Source: European Wind Energy Association

Tasks of the Grid:

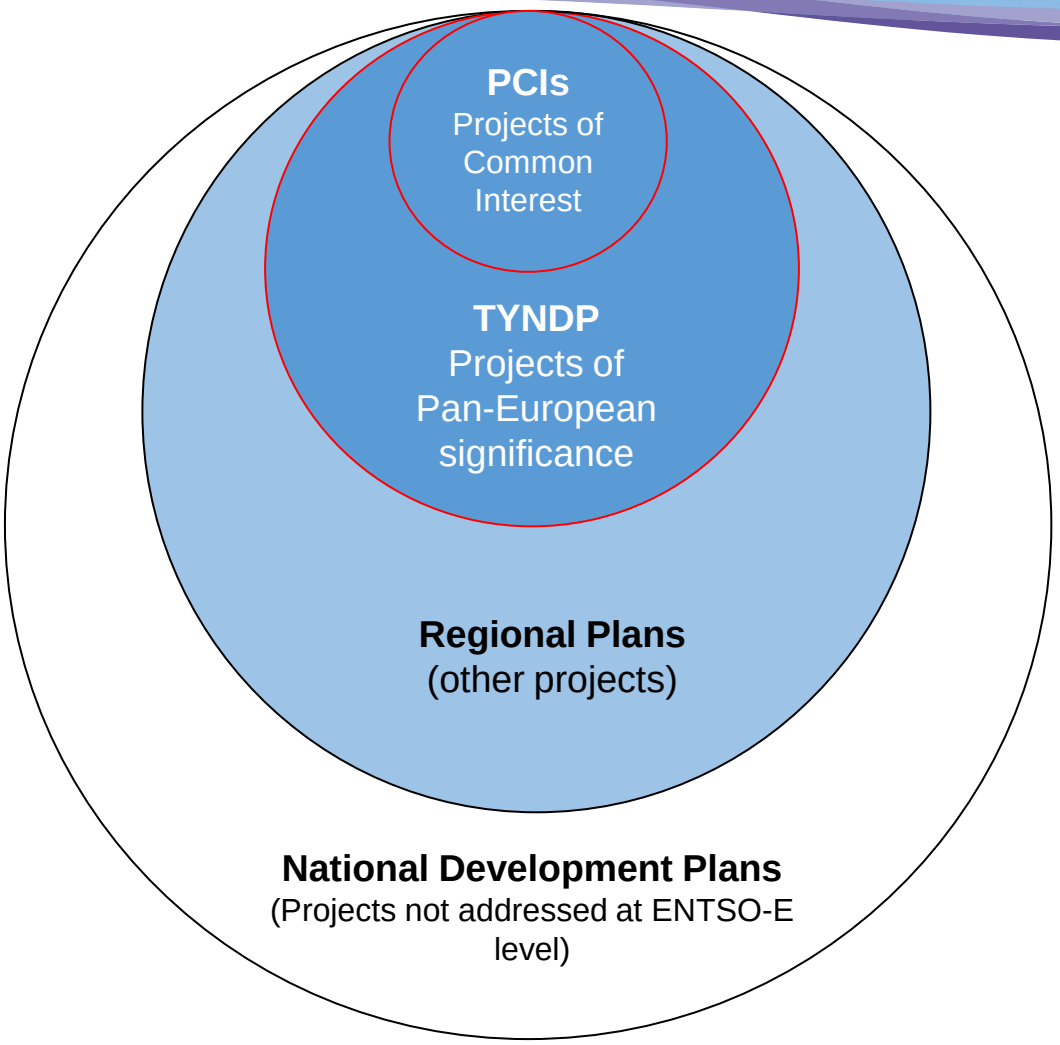
- Geographic balancing of volatile RES generation
- Accommodate decentral generation and generation by smaller units on lower voltage levels (→ upward feeds, i.e. change from supply to feed back)

→ The grid of the future will be increasingly dense and more meshed.
→ TYNDP and PCIs are agreed upon and monitored on European Level.

Regional TSO cooperation – infrastructure development



What cover the TYNDP's projects of Pan-European significance?



Definition of Projects of Pan-European Significance

- Meeting the EU energy targets: RES, SoS, IEM
- Voltage & capacity thresholds

From TSOs & 3rd parties

- Non-discriminatory procedure

Basis for further selection of **P**rojects of **C**ommon **I**nterest

The PCI process as an outcome of Reg. (EU) 347/2013

ENTSO- E	Project promoters	NRAs *Electricity*	EC Regional Groups	ACER	European Commission
• Prepare TYNDP for electricity	• Submit projects for EC • Criteria • CBA	• Check application of criteria • Cross-border relevance	• Evaluate projects • Rank • Adopt regional lists	• Opinion • Cross-regional consistency	• Adopt Union-wide list of projects of common interest (no ranking)

General criteria

Priority corridor implementation

Economic viability

Crosses border or has cross-border impact

Specific criteria

Market integration

Security of supply

Sustainability

→ Cost-Benefit Analysis (CBA)

ENTSO-E‘s views on draft 2030 targets and energy governance

ENTSO-E welcomes 2030 initiative as TSOs need investment certainty

Targets will only be achieved if the right infrastructure is in place on time

Interconnection targets need to be country-specific and derived from the TYNDP

EU coordinates the general target modell, but ENTSO-E and TSOs contribute to the long-term market design

EU monitors the achievement of objectives through key indicators, but indicators need to be defined adequately

- Interconnection indicator to be based on the TYNDP projects
- Market coupling indicator to measure amount of electricity markets connected to the day-ahead & intraday coupling algorithms.

Governance framework to be kept simple:

- Adopt best practice from current experience
- A governance scheme for the coordination of grid and generation investments is required

Thank you for your Attention!

Please ask Questions!

Regional Cooperation and new Energy-Governance Initiative
Ecologic Institut, Berlin, 30. April 2014

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