

Key note

Europe on the threshold of an internal energy market: the technical aspect. What has been achieved? What still needs to be achieved? How secure is the system?

*Creating a secure and undistorted European energy market
Bird & Bird's conference
Brussels, 4 February 2014*

Konstantin Staschus
Secretary general of ENTSO-E



About ENTSO-E



41 TSOs
from 34 countries



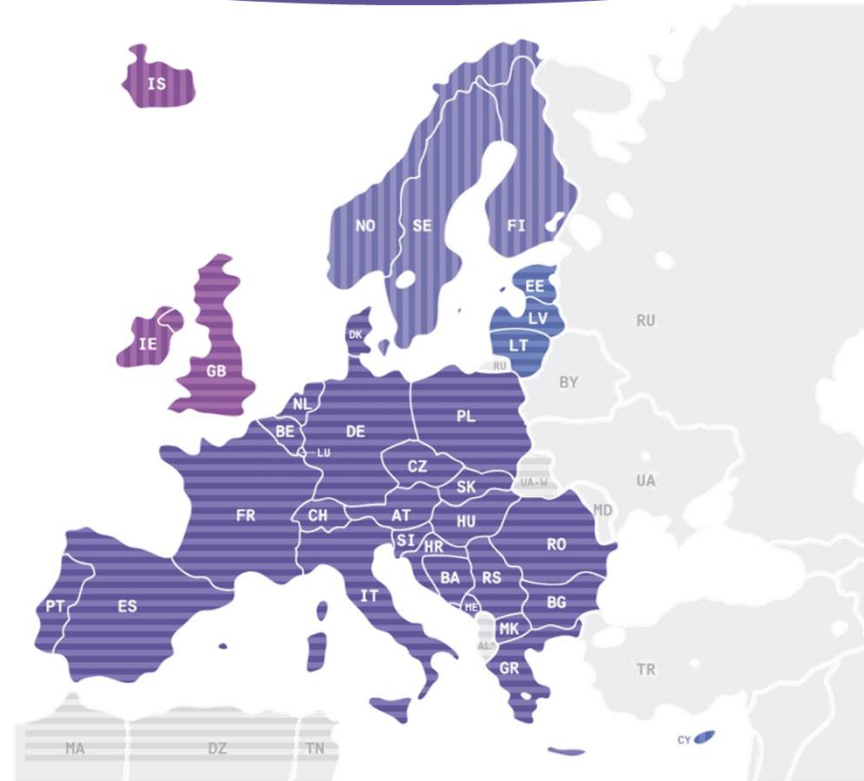
532 million
citizens served



828 GW
generation



305 Thousand Km
of transmission lines



Ten-Year
Network
Development
Plans

Adequacy
forecasts

R&D plans

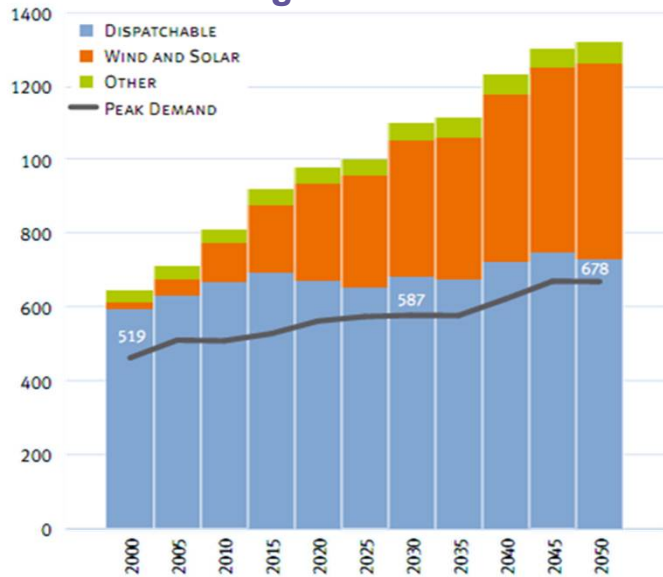
Tools for Market
Integration

Network Codes

The IEM: meeting Europe's low carbon target



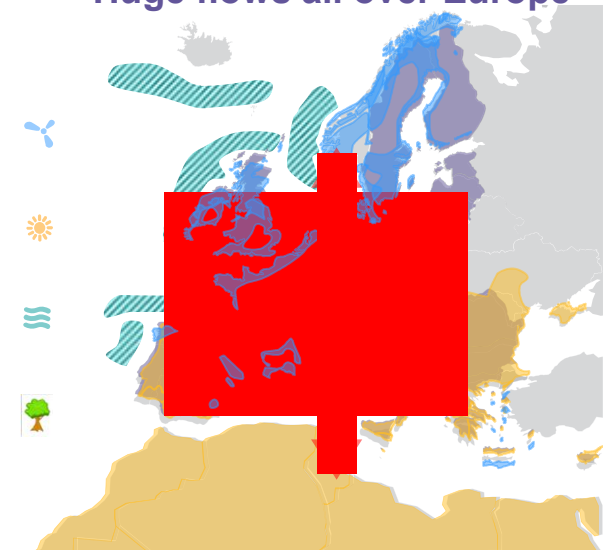
Variable generation



Thousands of small units



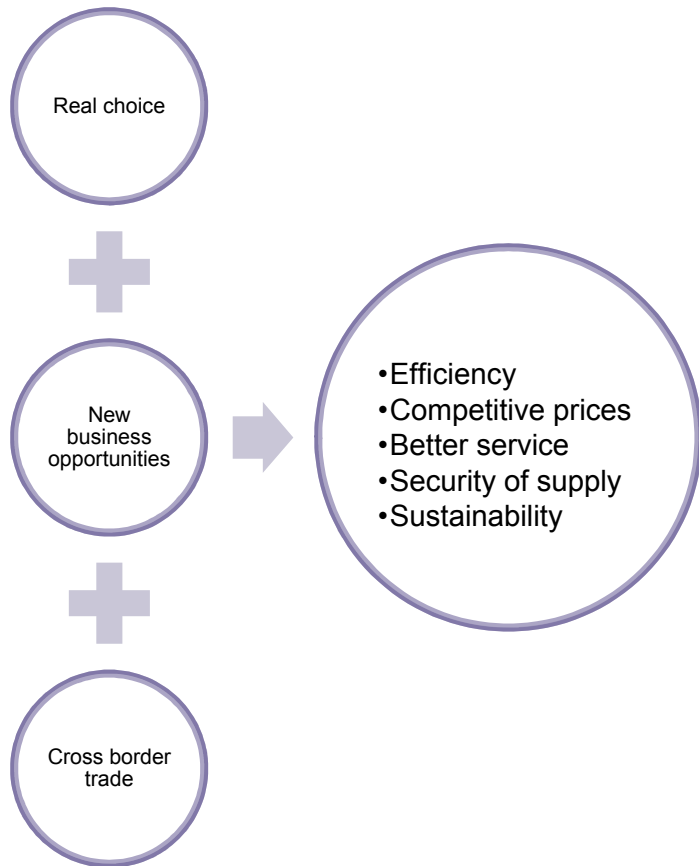
Huge flows all over Europe



Challenges

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

The IEM: creating benefits for European customers



420 billion €
electricity sector's annual turnover

80 % of power generation
still controlled by the long-established utilities

13 billion € / year
saved by EU customers through IEM

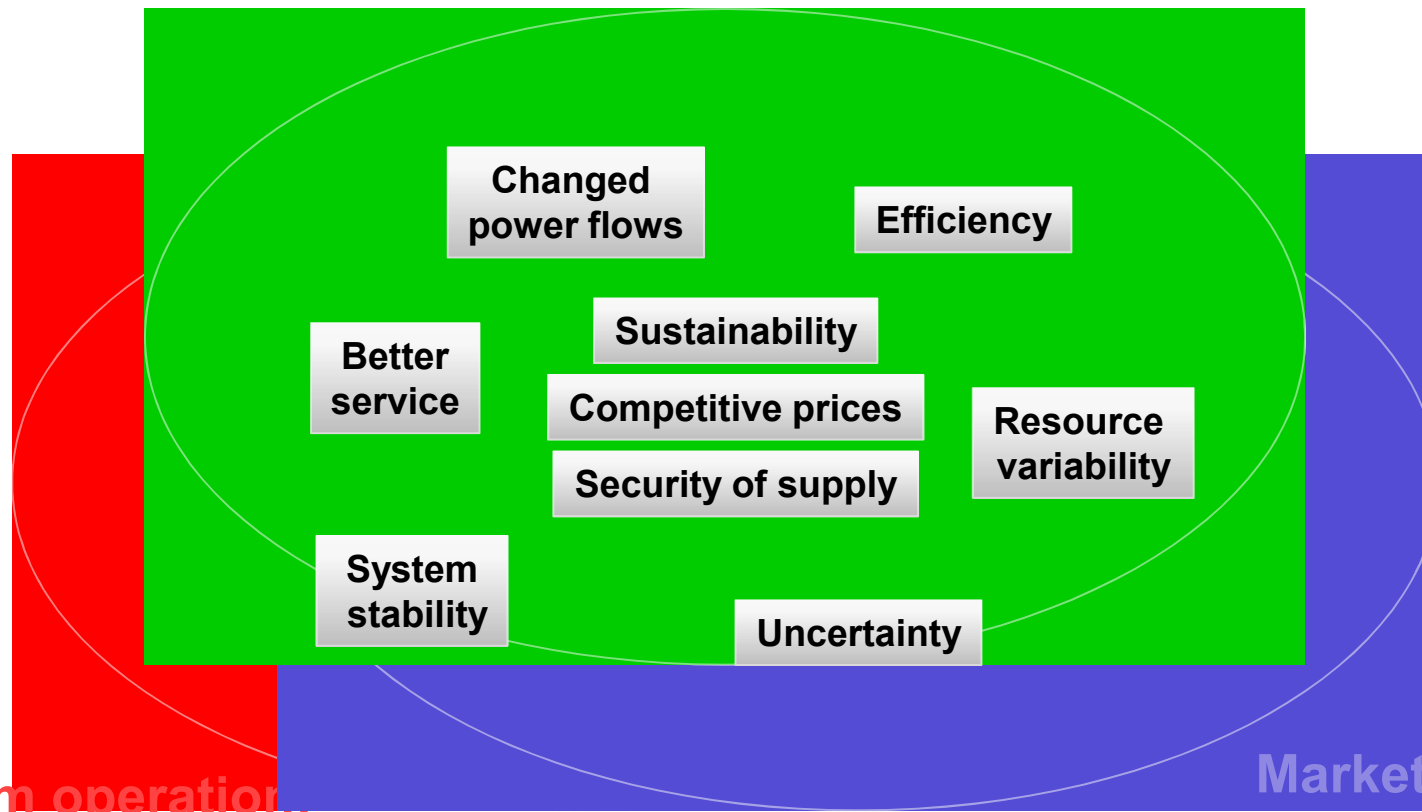
Source: 3rd Energy package and EC communications

Three pillars for delivering the IEM



Infrastructure:

Delivering a fit for purpose network



System operation

Delivering coordinated schemes

Market

Delivering well designed pan-European markets

The network code framework (Reg. 714/2009)

The network codes become European law through Comitology and shall be developed:

- *for cross-border network issues and market integration issues and*
- *shall be without prejudice to the Member States' right to establish national network codes which do not affect cross border trade*

The network codes prepared by the ENTSO for Electricity are not intended to replace the necessary national network codes for non-cross-border issues.

The network codes form the foundation on which the IEM is being built

Internal electricity market

3 Connection Network Codes

set requirements for

- Generators
- Demand-side (including DSM)
- HVDC connections

...paving the way for offshore wind...

3 Market Network Codes

set market rules for

- Day ahead/intraday & Capacity calculation
- Long-term timeframes
- System balancing

... day-ahead market coupling...

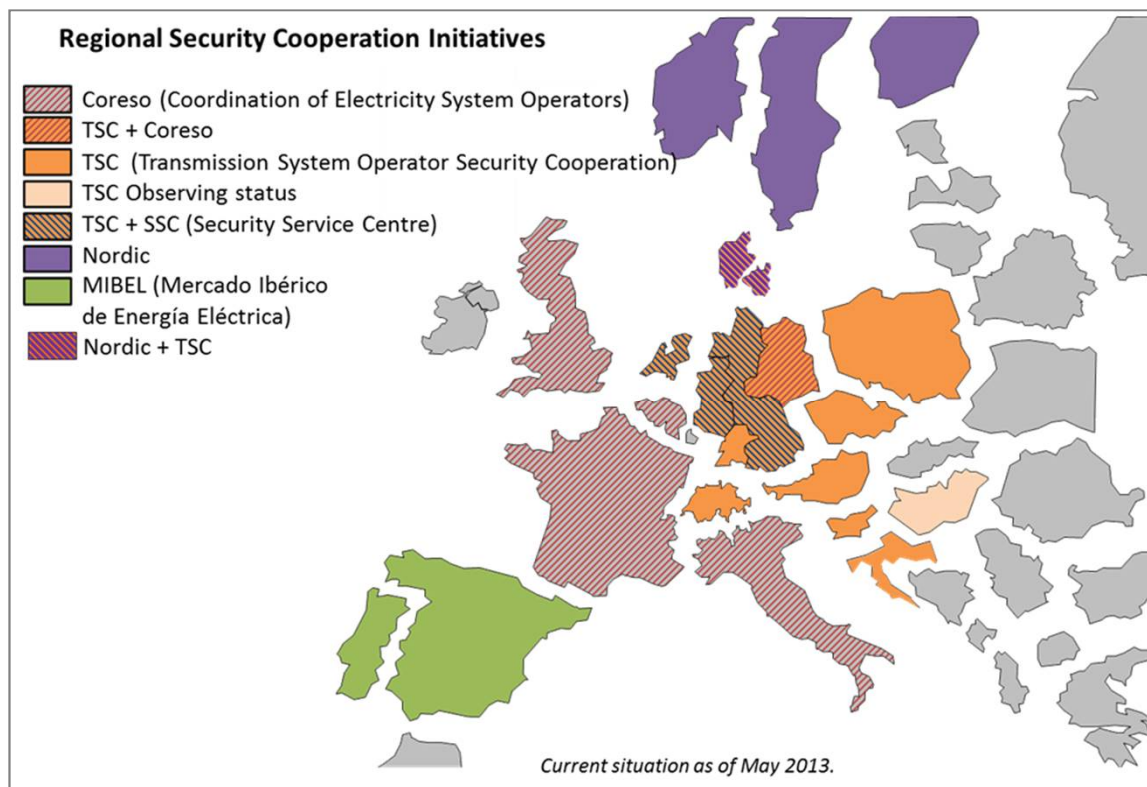
4 Operational Network Codes

set common rules for

- System security
- Assessing adequacy
- Planning outages
- Emergency situations

...regional security coordination initiatives...

Coordinated Security Assessment & Network Codes



Regional TSO coordination across Europe is necessary to securely manage more volatile power flows, and is already increasing

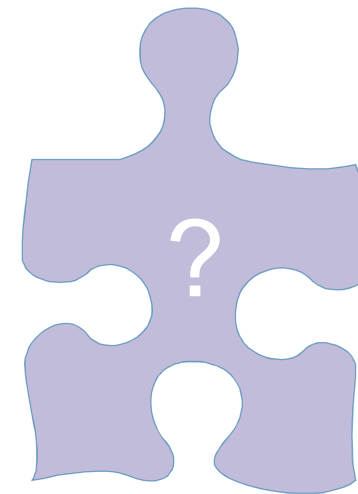
The network codes will act as a catalyst and legal framework for deeper and wider TSO coordination

Common: tools, data, processes

Challenge 1: Extending the target model's scope

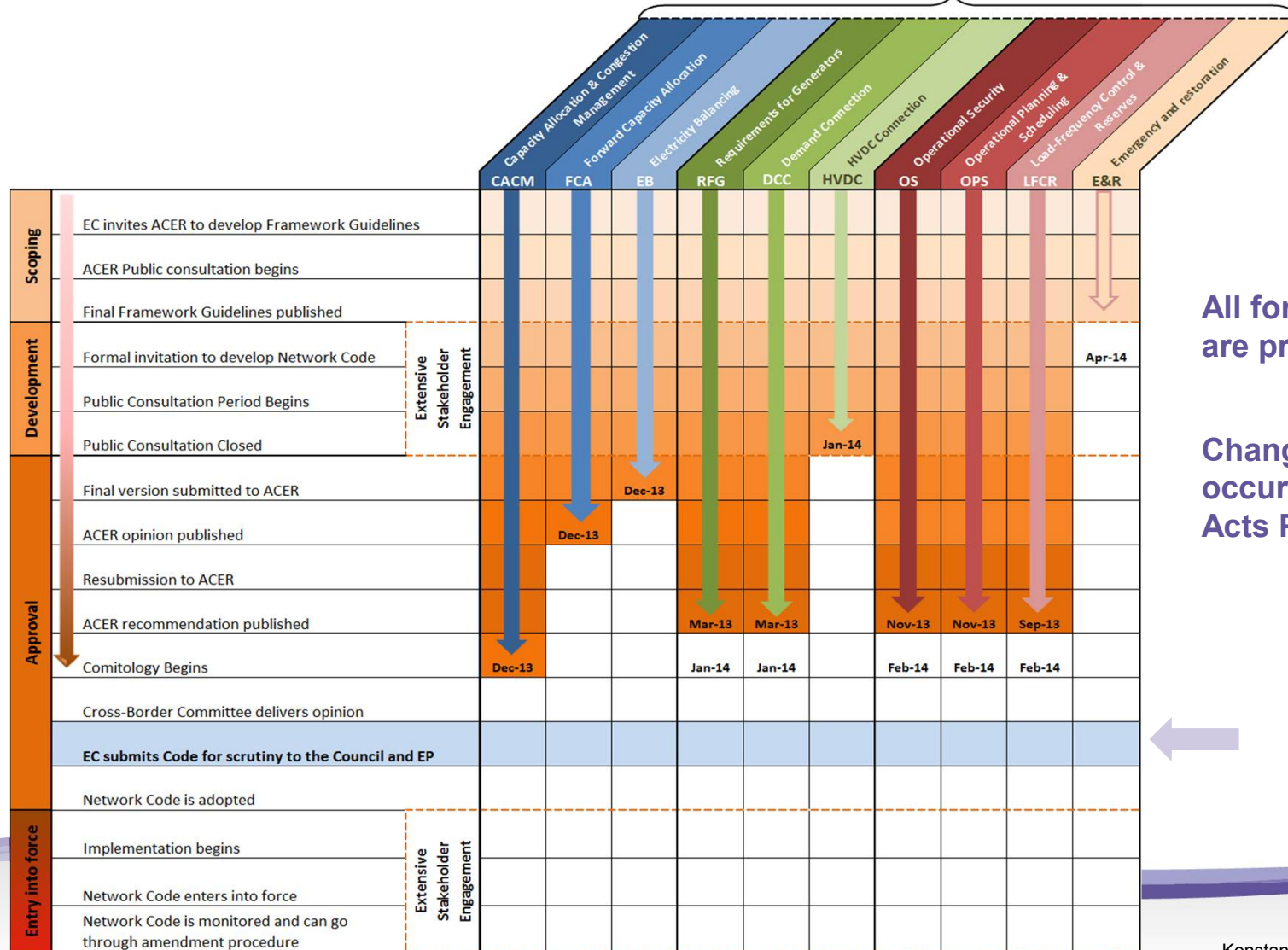
- The European Target Model as outlined in the framework guidelines and presently being described in network codes should be implemented as planned.

- However, it should be augmented with additional elements in order to address the future market challenges.



Current status of 10 network codes

Delivering the IEM



All forward looking dates are provisional

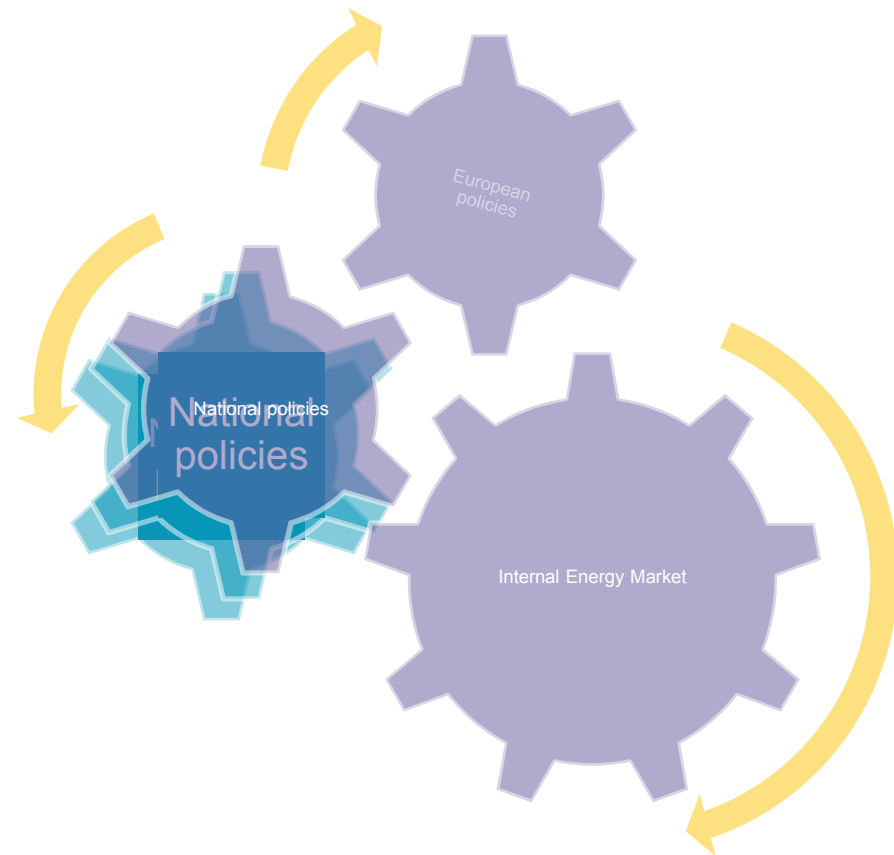
Changes in process may occur if the Delegated Acts Procedure applies

Challenge 2 - The market design should be European wide and so reduce the need for national interventions

Undue distortions of electricity markets should be avoided – in particular when complementing the European Target Model.

Policies/interventions on national and European level need to be consistent.

Regulatory and/or support mechanisms should be coordinated between member states to the highest possible degree.



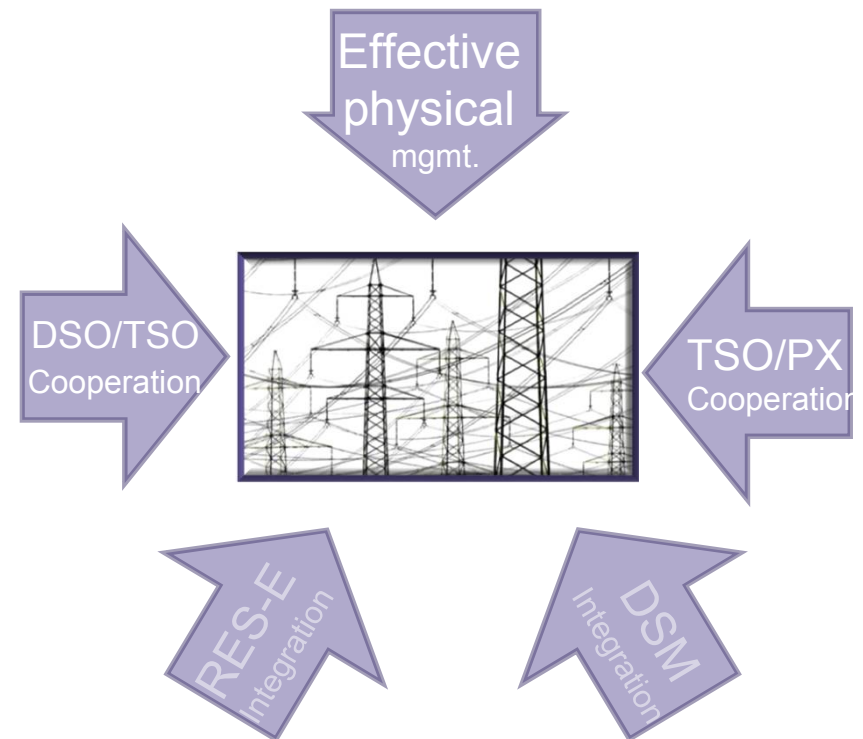
Challenge 3: Ensuring the resilience of the physical system and redefining and/or clarify responsibilities

Markets should contribute more to system management in all time frames,

- Requiring strong TSO/PX co-operation in D-1 and ID time frames.
- Interface between TSO and DSOs should also be further clarified.

TSOs responsibilities on physical system security have to go along with effective possibilities of physical management, including generation units and distribution networks.

Balancing responsibility for RES-E as well as full integration of DSM into the market design will be necessary.



IEM benefits for European consumers, and what has been achieved so far?

Delivering better service and more choice to European customers

Paving the way for technological innovation

Securing Europe's future competitiveness

Joint European planning -
TYNDPs every 2 years, and...

Infrastructure Regulation 347/2013
gives hope on permitting speed,
defines CBA and PCIs, but...

Actual permitting still slow

Network codes a very effective
tool for European market integra-
tion and technical issues, and...

10 NCs in the works, 6 ready for
Comitology, but...

NCs still awaiting approval

Conclusion: What has been achieved? What still needs to be achieved? How secure is the system?

The power system is facing significant changes and challenges

The IEM and adequate infrastructure address these challenges

Infrastructure is the 'hardware', now jointly planned;
operations and market rules in the network codes are the 'software'

Hardware and software need to go hand-in-hand to deliver the IEM,
with security of supply and pursuing sustainability goals in the most affordable way

This addresses the challenges for now and for 2020, and lays the foundation for 2030

Thank you for your attention

More info: <http://networkcodes.entsoe.eu/>

Questions?

