

# NETWORK CODES

**Dr. Konstantin Staschus**

**Generalsekretär**

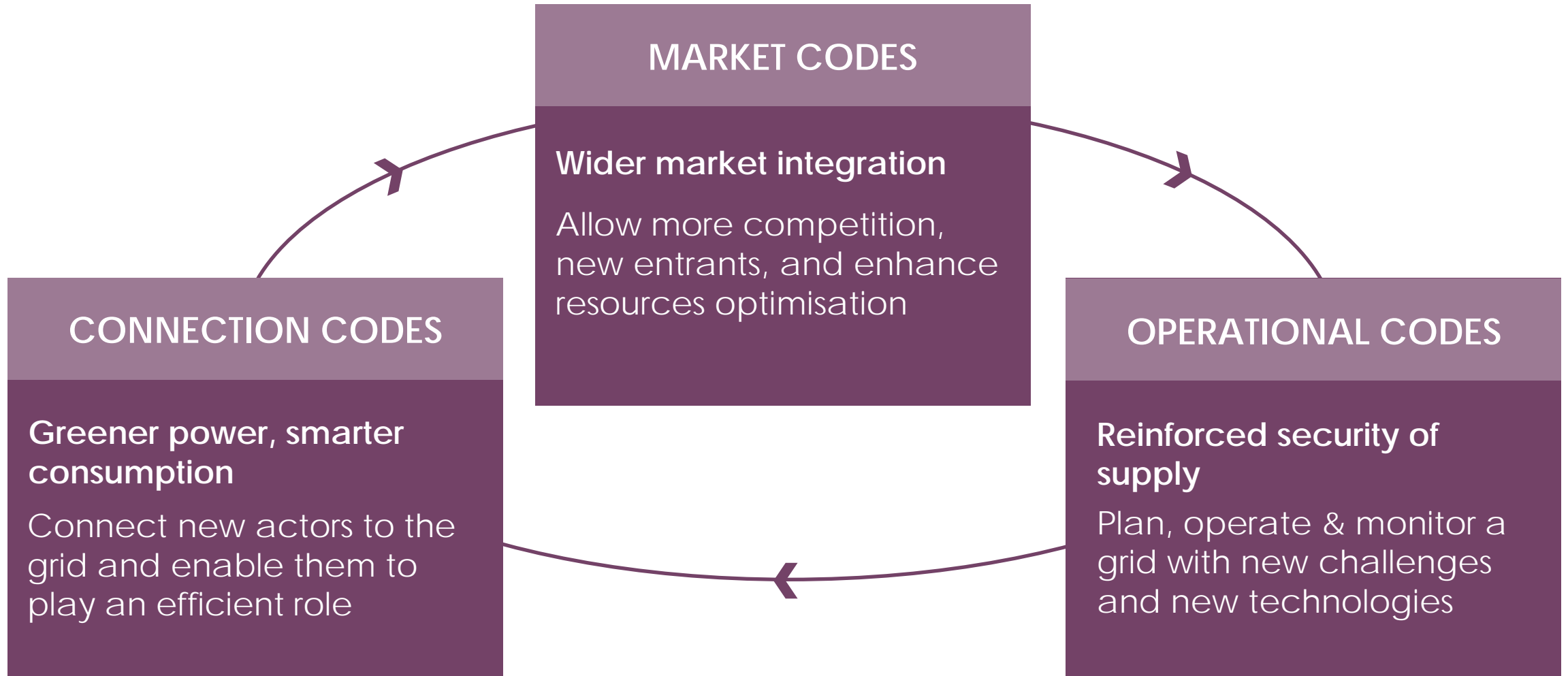
**Netzkodizes – Schwerpunkt Strom  
Hintergründe und Auswirkungen**

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# WHAT IS A NETWORK CODE/GUIDELINE?

- 1** A set of rules applying to a cross-border or market integration issue in the electricity sector
- 2** Developed by the European Commission, ACER, ENTSO-E & market participants under Art. 8 of the Electricity Directive
- 3** Going through a EU law-making process called 'Comitology'
- 4** Which at the end make network codes and guidelines binding EU regulations to be implemented in all member states

# STRIVING FOR EUROPEAN HARMONISATION OF OUR PROCESSES



# NETWORK CODES/GUIDELINES: THE FOUNDATIONS OF THE INTERNAL ENERGY MARKET

## 3 CONNECTION CODES

### Requirements for:

- Generators
- Demand side
- HVDC connections

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

## 3 MARKET CODES

### Rules for:

- Capacity calculation
- Day ahead / Intraday
- Forwards
- Balancing

...market coupling...

## 2 OPERATIONAL CODES

### Rules for:

- System Operation
- Emergency situations

...regional cooperation  
to increase security...

# STATE OF PLAY

## 3 CONNECTION CODES

- Requirements for generators
- Demand connection
- HVDC connections

## 3 MARKET CODES

- Capacity allocation & Congestion management
- Forward Capacity Allocation
- Balancing

## 2 OPERATIONAL CODES

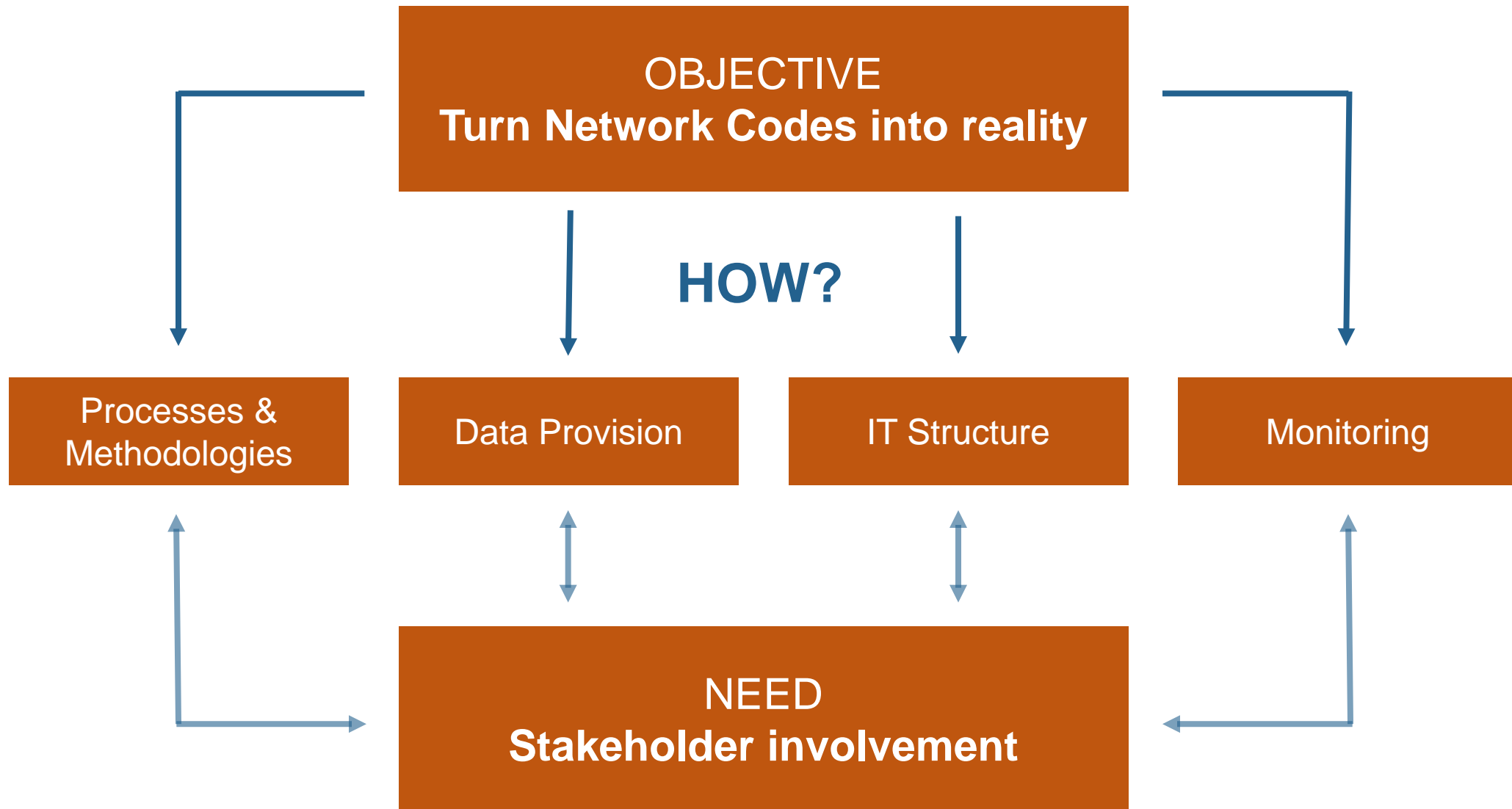
- System Operation Guideline
- Emergency situations

Published in the EU  
Official Journal and/or  
in force

Validated by member states'  
representatives, awaiting validation  
by EU Council & Parliament

Pending validation by  
member states'  
representatives

# AND NOW?



# WHICH ROLE FOR TSOs?

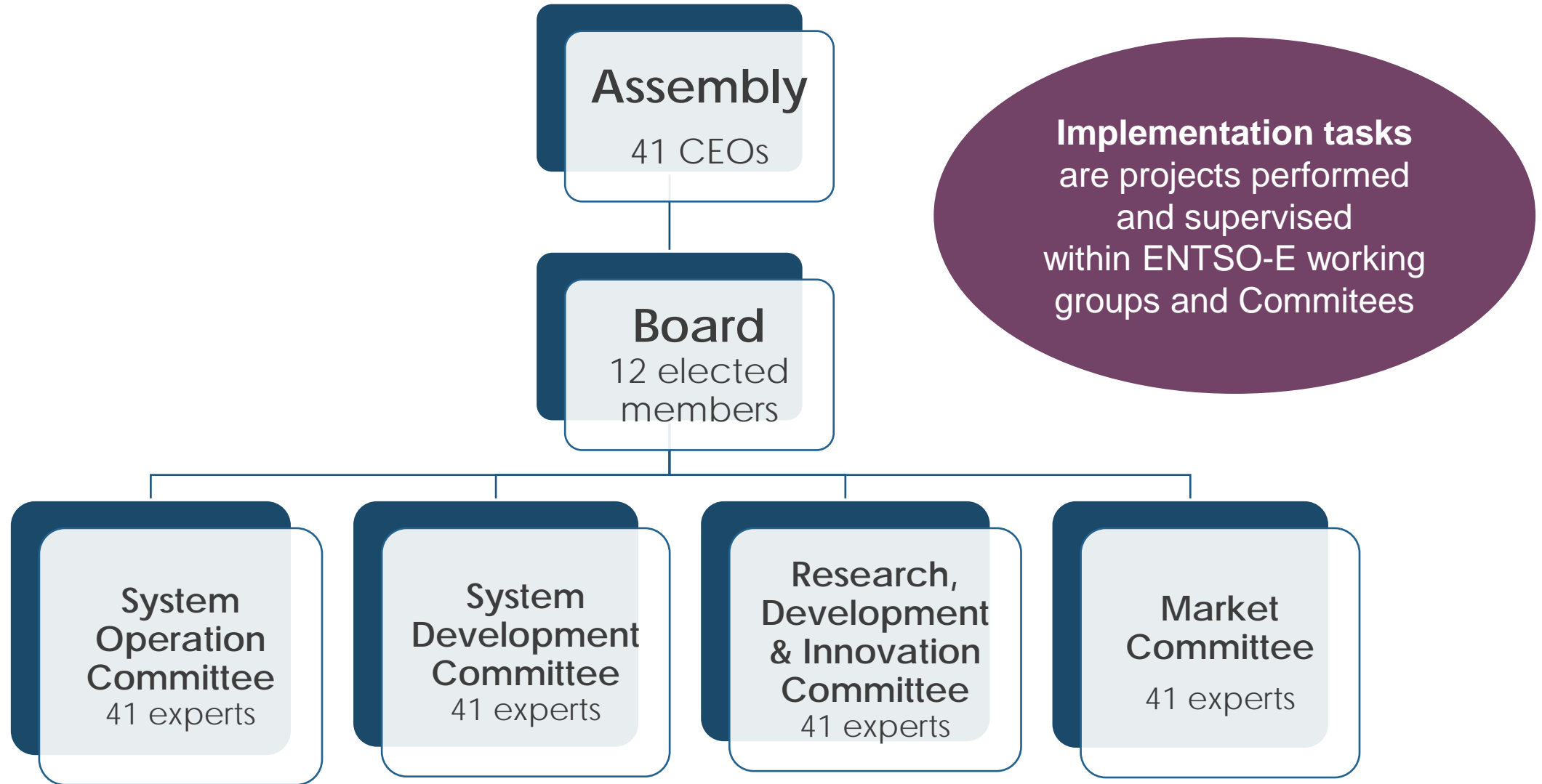
## DIFFERENT LEVELS OF RESPONSIBILITIES AND HARMONISATION

Task	Responsibility	Approval
ENTSO-E	ENTSO-E	ACER
Pan-European “All TSOs”	EU TSOs	All NRAs
Regional “All TSOs”	TSOs of the regions	NRAs of the region
National	Depending on national legislation (TSO, DSO, ...)	National NRAs

Stakeholders involvement, from European and regional groups, until national bodies

Monitoring by  
ACER, EC, ENTSO-E

# ENTSO-E WORKING STRUCTURE





# ENTSO-E GOVERNANCE

## **Assembly**

The CEOs of 41 European power transmission system operators (only full members can sit)

## **Board**

Elected by the Assembly and is in charge of implementing ENTSO-E's strategy

## **Committees**

One representative of each members. In charge of the more technical tasks of the association

## **Secretariat**

+/- 70 staff in Brussels (contracted and seconded) supporting the delivery of ENTSO-E's mandates

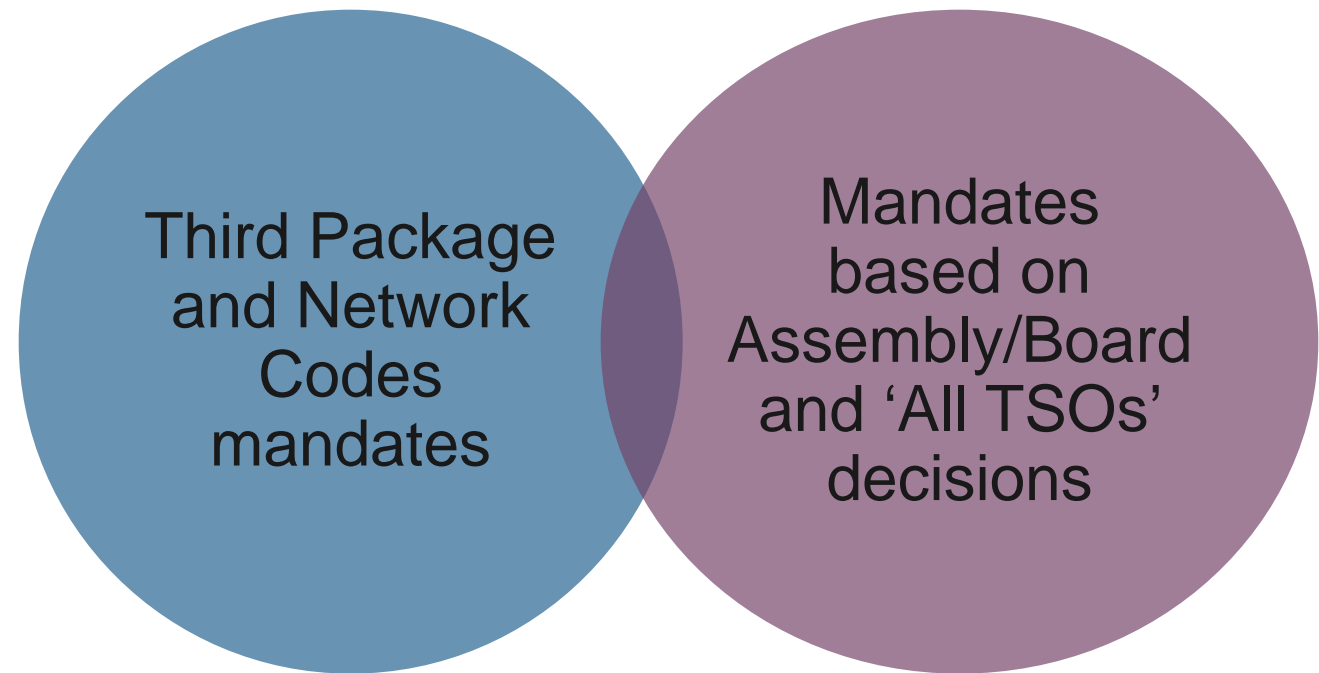
## **Advisory Council**

Created in 2016 to support the opening of the association towards stakeholders

# “All TSOs” PROCESS: WHICH ROLE FOR ENTSO-E?

## ➔ Responsibility on the TSOs

- Facilitation of “all TSOs” tasks
  - Established for pan-EU tasks
  - Can be applied for regional tasks
- Specific rules apply
  - ToRs approved by the TSOs
- Use of ENTSO-E as platform
  - Gather TSOs, Secretariat support
- Inter-operability, stakeholders engagement and communication



# FIRST IMPLEMENTATION TASKS: MARKET CODES



➔ Several Tasks involving ENTSO-E, all TSOs, regional TSOs

## Capacity Allocation & Congestion Management

Monitoring plan & information delivery	Done by 2016
Definition of Capacity Calculation Regions	Done by 2016
Data provision for Common Grid Model	Done by 2016
Schedule Exchanges methodology	Done by 2016
Bidding zone review	2017
Congestion Income Distribution	Done by 2016
TSOs - NEMOs Cooperation	2017
Day ahead firmness deadline	Done by 2016
Cross border Intraday gate open/close time	Done by 2016

## Forward Capacity Allocation

Harmonized Allocation Rules	2017
Single Allocation Platform	2017

## Balancing Guidelines

Standard Products
Settlement TSO-TSO, TSO-BSP, TSO BRP
Early implementation projects for Imbalance netting, aFRR, mFRR, RR

# FIRST IMPLEMENTATION TASKS: OPERATION CODES



➔ Several tasks involving ENTSO-E, all TSOs, regional TSOs

System Operation Guidelines		Emergency & Restoration	
Regional Coordination	2019	Regionally coordinated system defence and system restoration plans	2018
Common Grid Model: methods, data	2017	Coordinated automatic over-frequency control	2019
Data Exchange	2017		
Coordinated operational security analysis	2018		
Operational planning data environment	2019		
Synchronous area operational agreements	2018		

# FIRST IMPLEMENTATION TASKS: GRID CONNECTION CODES

➔ Member states, responsible for national implementation

## ENTSO-E Guidance

Non-biding implementation guidance documents

- RfG Done by 2016
- DCC 2017
- HVCS 2017

Monitoring with ACER

Support to TSOs coordination

Exchange of experience and coordination

# STAKEHOLDER COMMITTEES



- One stakeholder committee per family of codes.
- Grid connection and market already in place.
- ACER chairs.
- ENTSO-E in charge of secretariat.
- All information publically available on [entsoe.eu](https://entsoe.eu)

# DEVELOPING NETWORK CODES – LESSONS LEARNT

More co-creation with stakeholders

Systematic use of stakeholder groups and organisation of feedback workshops

Pro-actively reach out to less involved stakeholders: civil society, consumer organisations, less active countries

Filtering role on amendments for the Stakeholder Committees recognised by ACER

Ensure sufficient resources at Commission, ACER and ENTSO-E to deliver implementation

Include Energy Community from start in implementation projects

# THANK YOU

## FOR YOUR ATTENTION



**info@entsoe.eu**



**+32 2 741 09 50**



**For more information:  
<http://www.entsoe.eu>**



**Av. de Cortenbergh 100  
1000 Brussels Belgium**