

The background is a satellite-style image of Europe at night, with city lights visible. Overlaid on this are numerous glowing blue lines that represent an energy grid, connecting various points across the continent and extending towards the top right.

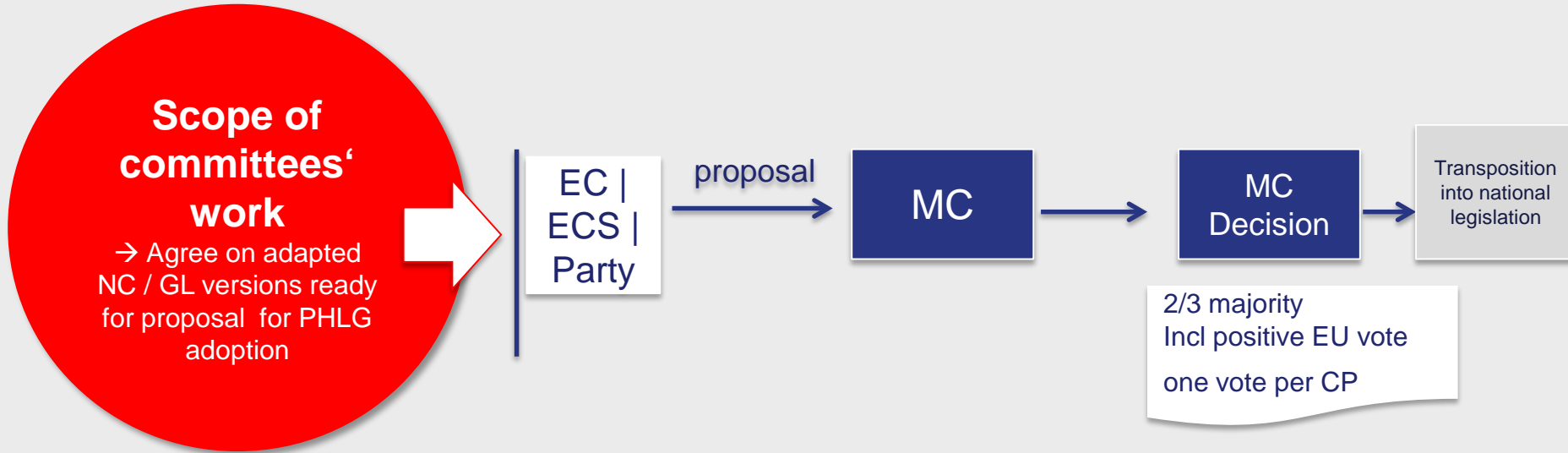
## Bringing system operation and electricity balancing guidelines in the Energy Community

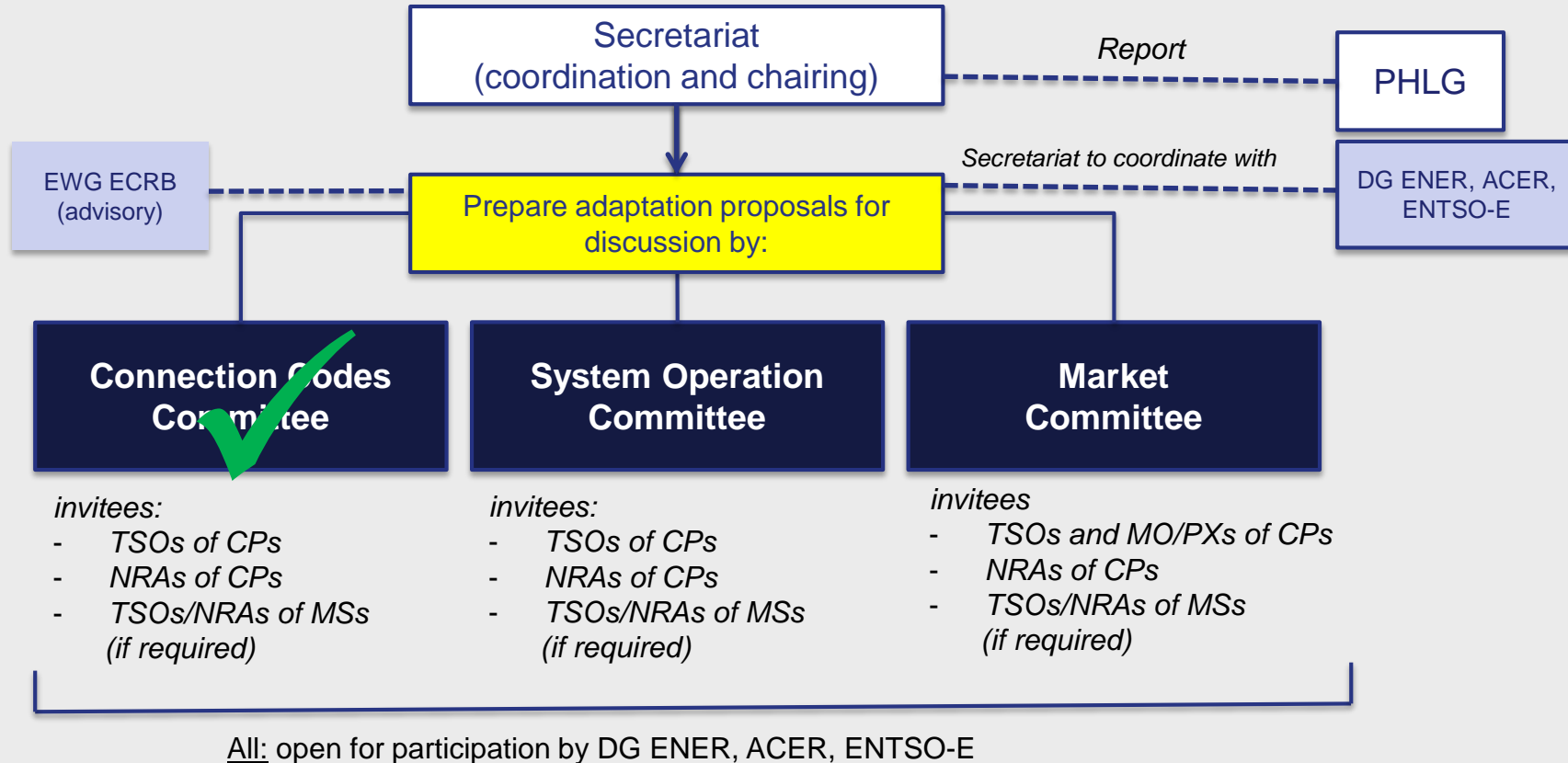
Energy Community Secretariat

# Agenda

1. Procedures
2. Introduction
3. Geographical scope
4. Methodologies – existing vs new | pan-European vs regional
5. Voting
6. Others

# 1. Procedure





- **Standard adaptations**
  - EC → ECS | ACER → ECRB | MS → CP
- **ad-hoc adaptations**
- **Implementation in one step**
- **Implementation deadlines**
- **Reciprocity relevant**
  - Title III
  - Alternative Title IV

## Standard adaptation+



=>



*ECS (+EC as necessary) intervenes when no agreement is reached on proposals by TSOs / NEMOs*



=>



*ECRB's role in adopting methodologies in case of failure by TSOs/NRAs  
ACER's role is for information only*



=>



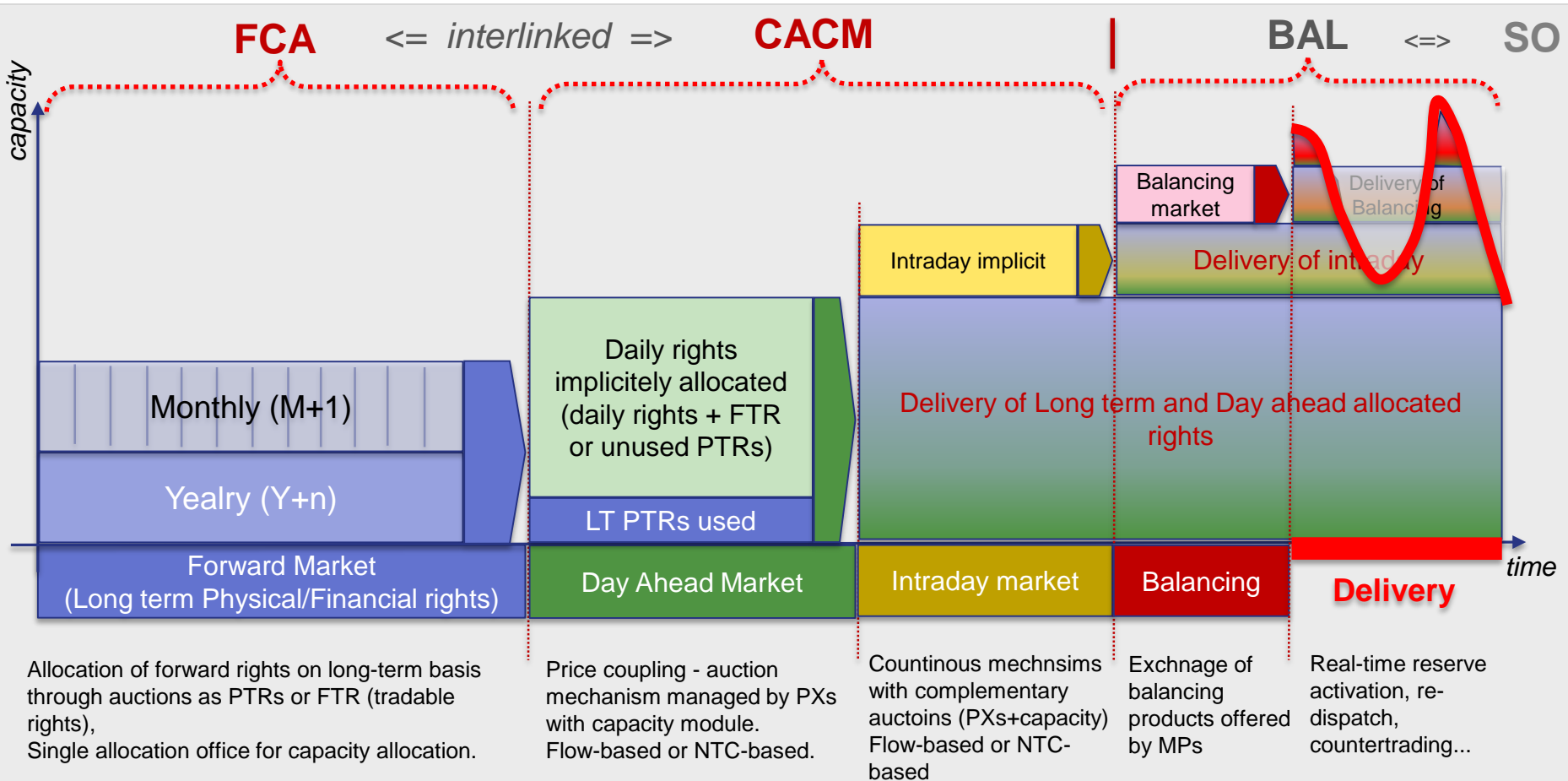
*ENTSO-E's role in assessments, drafting, facilitation, coordination, reporting, etc.  
Requirements coordinated with EU CACM*

## 2. Introduction



- Electricity Regulation 714/2009 (part of 3<sup>rd</sup> package) adopted by the MC in October 2011
  - Third package sets the basis for a liberalized market (unbundling, non-discriminatory access, etc.)
  - **Network codes and guidelines** established according to EU 714/2009 sets to target model for European market
    - Requirements for forward cross-zonal transmission rights
    - DAM through single and IDM through continuous market coupling algorithm
    - European and regional balancing platforms and close system operation coordination
    - ... and technical and operational requirements

# Target model = market network codes



### 3. Geographical scope

# Geographical scope

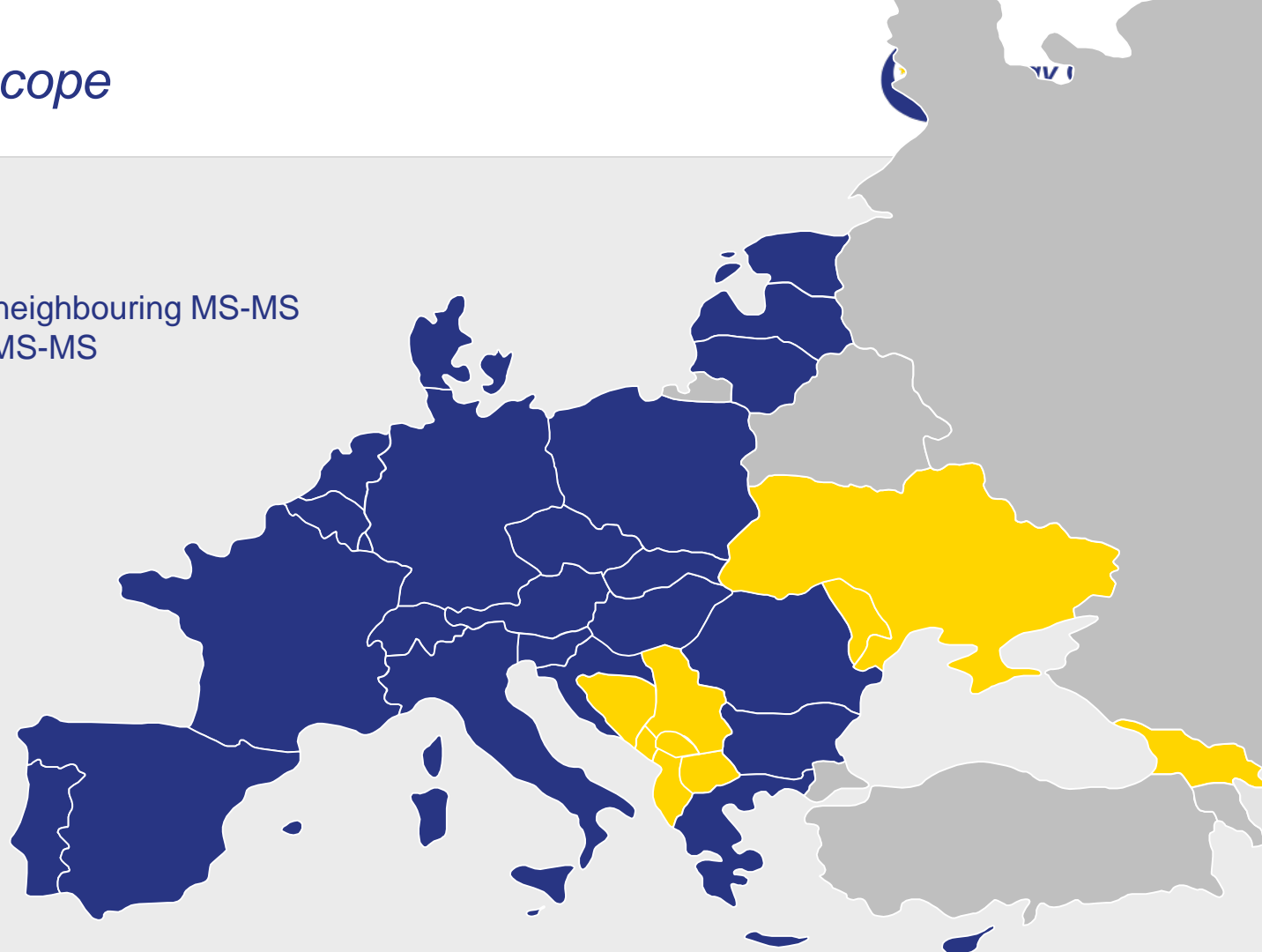
Regions concerned:

Title II – CP-CP

Title III – CP-CP, CP-MS, neighbouring MS-MS

Title IV - CP-CP, CP-MS, MS-MS

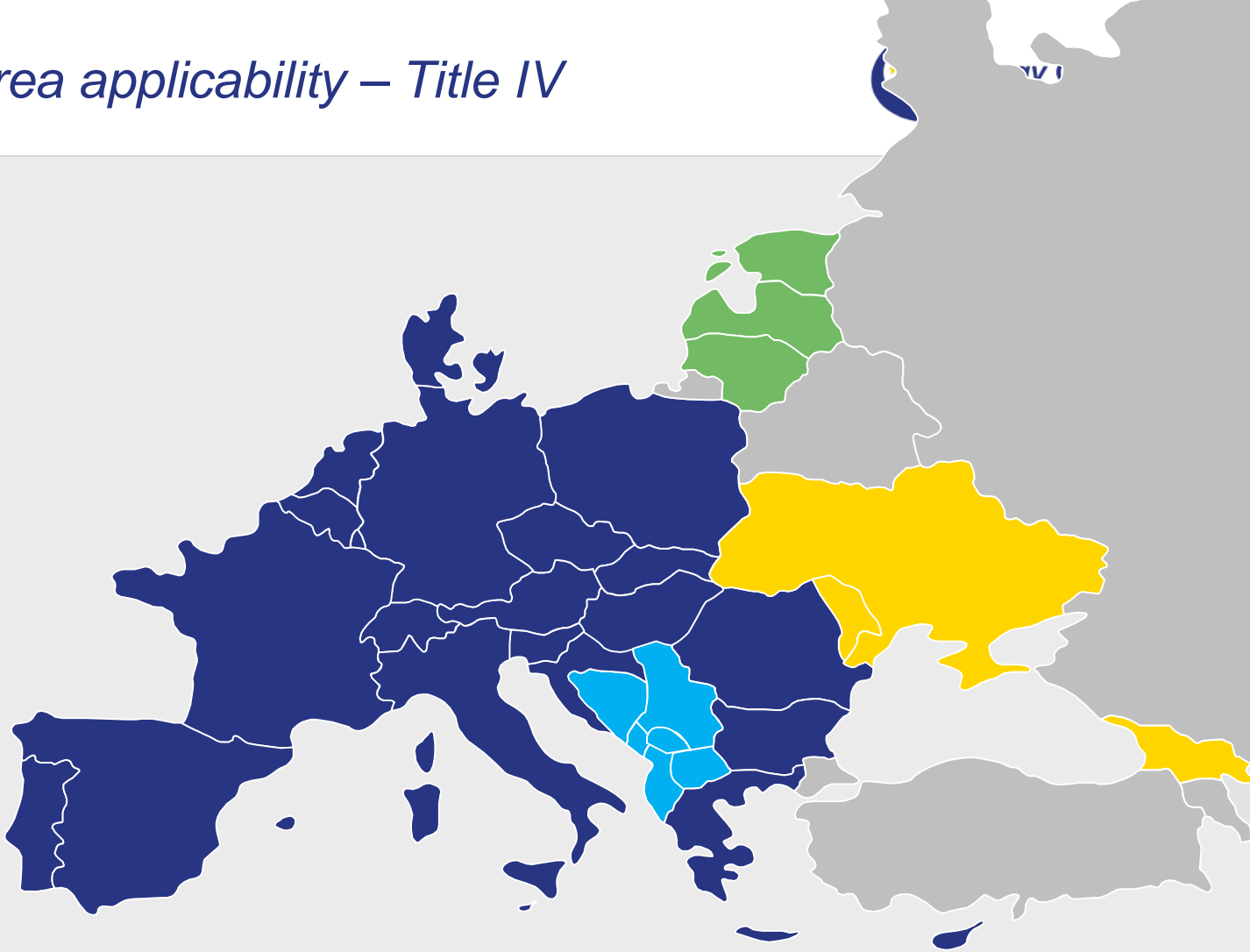
- Member States
- Contracting Parties



# Synchronous area applicability – Title IV

Continental Europe SA

IPS/UPS - Baltic SA +UA/MD/GE



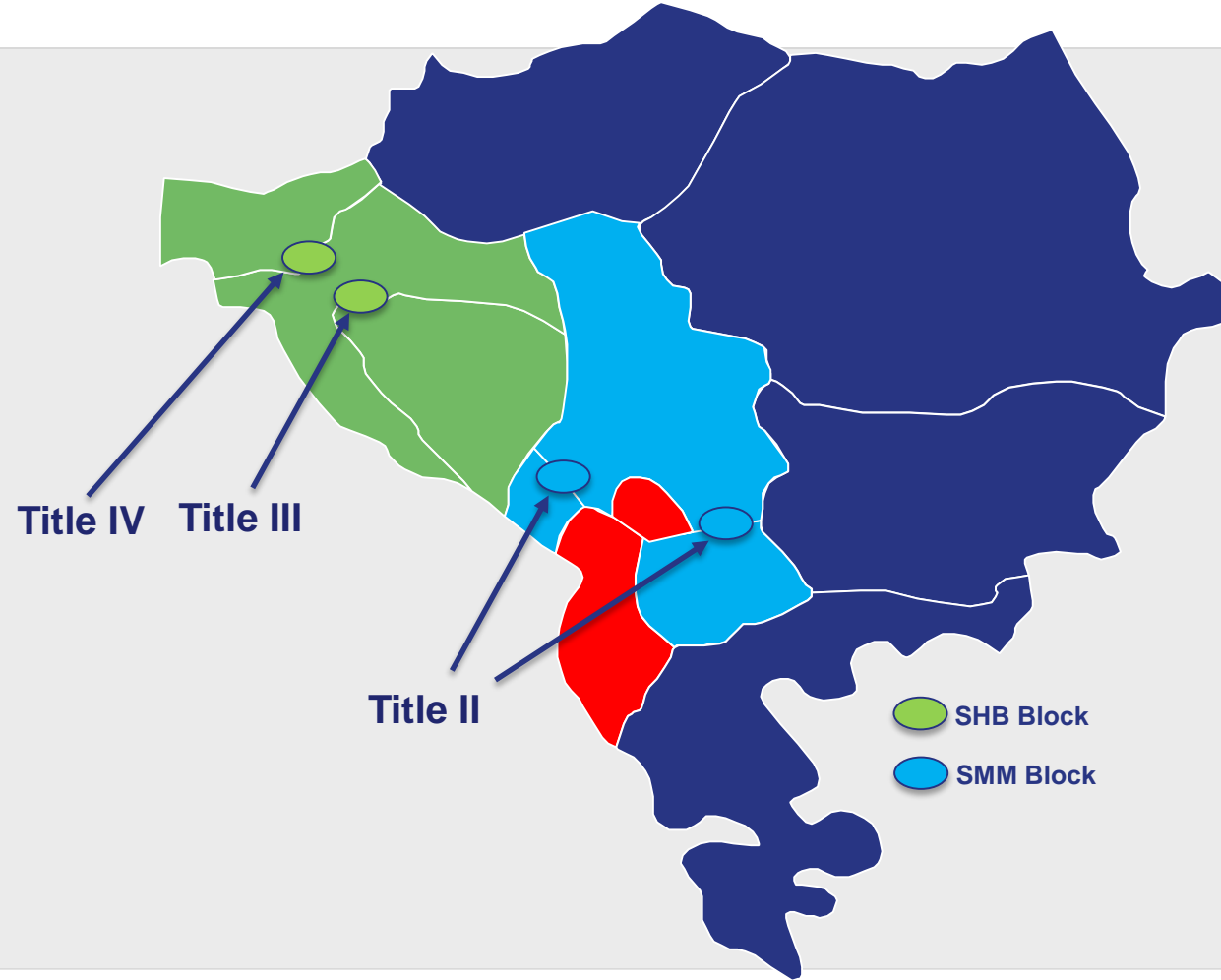
Similar approach as for Lithuania, Latvia and Estonia could apply:

## ***Article 2(4)***

***The TSOs of Lithuania, Latvia and Estonia are, as long as and to the extent that they are operating in a synchronous mode in a synchronous area where not all countries are bound by Union legislation, exempted from the application of the provisions listed in Annex I to this Regulation, unless otherwise foreseen in a cooperation agreement with third country TSOs setting the basis for their cooperation concerning secure system operation pursuant to Article 13.***

***Annex I – list of Articles for which they are exempted***

# LFC block applicability – Title IV / Title III / Title II

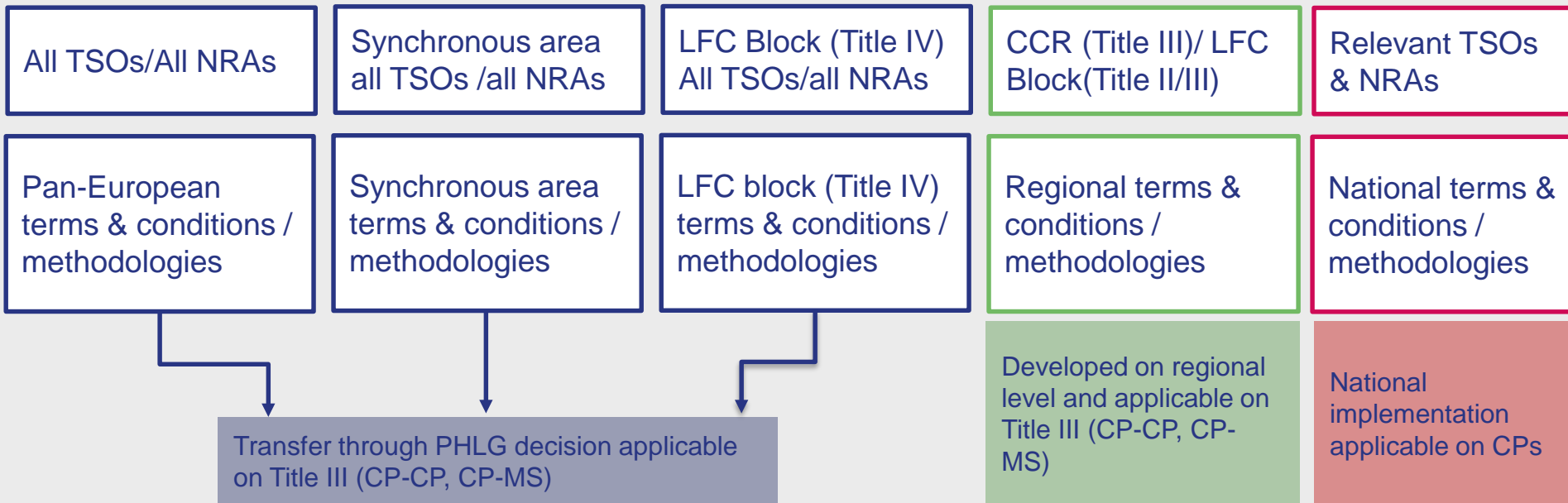


# Article 6 – Approvals of terms and conditions or methodologies of TSOs - applicability

- Article 6(2) – all TSOs proposals/NRAs approvals (Title IV)
- Article 6(3) – regional approvals:
  - (a) Synchronous area-level (Title IV)
  - (b) Capacity calculation region (Title III)
  - (c) At least synchronous area-level (Title IV)
  - (d) Synchronous area-level (Title IV) (synchronous area operation agreements Article 118)
  - (e) LFC block-level (Title II/Title III/Title IV) (LFC block agreements Article 119)
  - (f) Synchronous area or LFC block-level (Title IV)
  - (g) Synchronous area-level (Title IV)
- Article 6(4):
  - National approvals (Title II)



# Possible approach to adaptation for the EnC



# Development of methodologies at EU-level - status

SO GL All/relevant TSOs and ENTSO-E tasks	2018												2019												Consultation period	Workshop
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
<b>Pan-European activities</b>																										
Key organisational requirements, roles and responsibilities in relation to data exchange (Art. 40.6)	■	■	■	■																						
Methodology for building the year-ahead, day-ahead and intraday common grid models from the individual models and for saving them (Art. 67.1)	■	■	■	■																						
Methodology for coordinating operational security analysis (Art. 75.1)																										
<b>Regional activities on synchronous area level</b>																										
OPTIONAL Methodology for the definition of minimum inertia required to maintain operational security and prevent violation of stability limits (Art. 39b)																								■	■	
Methodology for assessing the relevance of assets for outage coordination (Art. 84.1)	■	■	■	■																						
Methodologies, conditions and values included in operational agreements (Art. 118.1)	■	■	■	■																						
Determination of LFC blocks (Art. 141.2)	■	■	■	■																						
Assumptions and methodology for a CBA to be conducted to assess the minimum activation time of FCR - in CE and Nordic synchronous areas (Art. 156.11)	■	■	■	■																						
Cost-benefit analysis suggesting the minimum FCR activation period (156.11)																										
<b>Regional activities on CCR level</b>																										
Common provisions for regional operational security coordination (Art. 76.1)																										

■ ENTSO-E Drafting Proposal / Activity

■ Consultation

w Workshop

■ ENTSO-E Proposal submission / Deadline

■ NRAs Approval preparation

■ NRAs Approval publication

Source ENTSO-E website

## *open questions*

- Open question:
- If and to which extent adaptations of terms and conditions or methodologies adopted at EU-level for synchronous area and LFC block (Title IV) would be needed?
- Example:
- Article 6(3)(g) – common proposal per synchronous area for the determination of LFC block in accordance with Article 141(2)
- Article 141(2)
  - By 4 months after entry into force of this Regulation, all TSOs of a synchronous area shall jointly develop a common proposal regarding the determination of the LFC blocks
    - Will a proposal approved at EU-level include LFC blocks including CPs?
      - If not included, what will be a procedure to include them? Annex to PHLG decision?
  - Participation of EnC CPs TSOs in developing proposals at EU-level would simplify adoption for EnC

*open questions*

- Open question:
- If and to which extent adaptations of terms and conditions or methodologies adopted for LFC block (Title IV) would be needed?
- Example:
- Article 6(3)(e) – methodologies and conditions included in the LFC block operational agreements in Article 119
- Article 119 – LFC block operational agreements
  - By 12 months after entry into force of this Regulation, all TSOs of each LFC block shall jointly develop common proposals for...
    - How will this be implemented for SHB block?
    - This Article shall be applicable to LFC blocks between CPs only (e.g. SMM block) and decision shall be subject to regional all NRAs approval

# *Part IV – Load-frequency control and reserves*

## *Title 1 – Operational agreements*



Subject to all NRAs concerned approval:

- Article 118 - Synchronous area operational agreement
- Article 119 - LFC block operational agreements

Following agreements shall be established among all TSOs concerned:

- Article 120 – LFC area operational agreements
- Article 121 – Monitoring area operational agreement
- Article 122 – Imbalance netting agreements
- Article 123 - Cross-border FRR activation agreement
- Article 124 – Cross-border RR activation agreement
- Article 125 – Sharing agreement
- Article 126 – Exchange agreement

## Article 13

### *Agreements with TSOs not bound by this Regulation*

*Where a synchronous area encompasses both union and third country TSOs, within 18 months after entry into force of this Regulation, all Union TSOs in that synchronous area shall endeavour to conclude with the third country TSOs not bound by this Regulation an agreement setting the basis for their cooperation concerning secure system operation and setting out arrangements for the compliance of the third country TSOs with the obligations set in this Regulation.*

**⇒ Could be applied to all EnC CPs**

**⇒ Not binding for EnC CPs, is voluntary approach enough?**

## Article 26

### *Security plan for critical infrastructure protection*

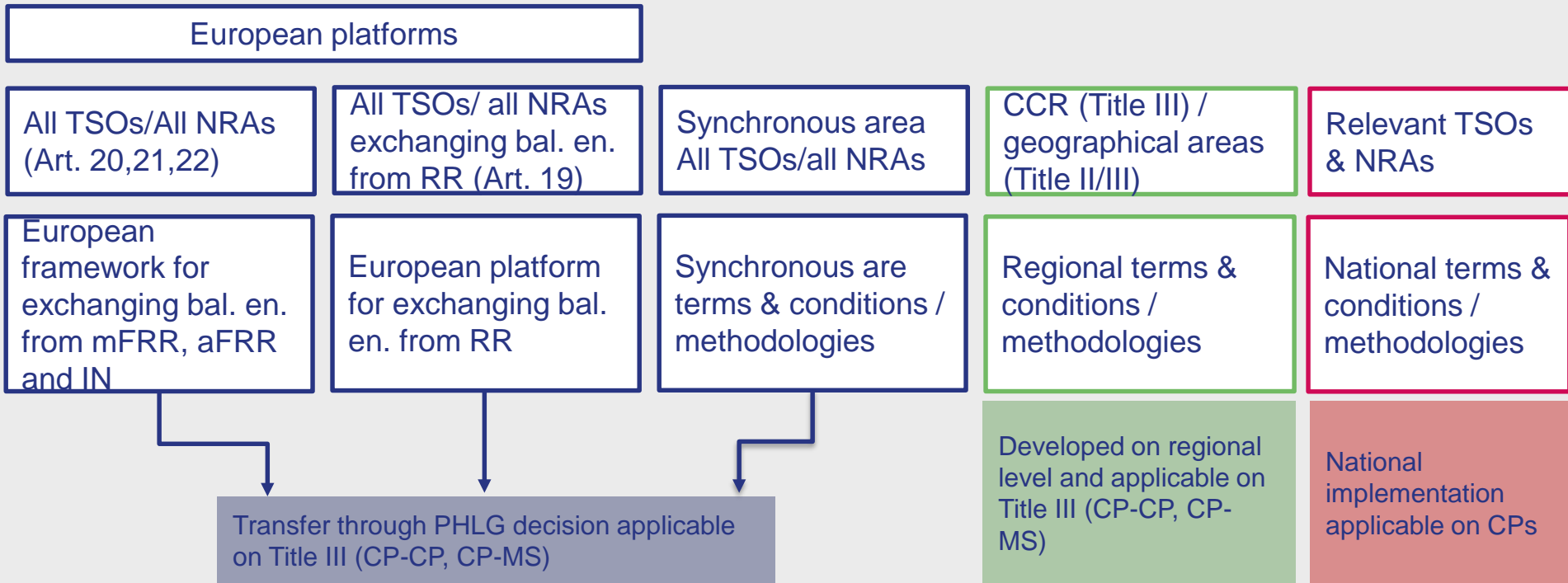
1. *Each TSO shall specify, taking into account **Article 5 of Council Directive 2008/114/EC\***, a confidential security plan containing a risk assessment of assets owned or operated by the TSO, covering major physical or cyber threat scenarios determined by the Member State.*

**\*COUNCIL DIRECTIVE 2008/114/EC of 8 December 2008**

**on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection**

**⇒ Article 5 of Directive 2008/114/EC could be adapted for the EnC or to propose adoption of this Directive in the EnC**

# Possible approach to adaptation of EBGL for the EnC





# EBGL - Development of methodologies at EU-level



GLEB All/relevant TSOs and ENTSO-E tasks	2018												2019												Consultation period	Workshop
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
ENTSO-E to update manual of procedures of Transparency Regulation																									Expected: Sept. - Oct.	
Proposal for activation purposes										w																
Each TSO to propose T&Cs for BSPs and BRPs																										
Proposal for pricing method for all products																									Expected: Sept. - Oct.	
Proposal for TSO-TSO settlement of intended exchanges of energy																									Expected: Sept. - Oct.	
Proposal for TSO-TSO settlement of settlement of ramps and FCR and unintended exchanges within and between SA																										
Proposal for harmonisation of certain features of imbalance calculation & pricing				w																					Expected: Sept. - Oct.	23/03/2018
CZC Allocation - Proposal for list of Standard Balancing Capacity Products																										
CZC Allocation - Methodology for calculating CZC for balancing																								w		
CZC Allocation - Harmonise allocation of CZC within CCR																										
CZC Allocation - Methodology for cooptimised CZC allocation																								w		
CZC Allocation - Methodology for market based CZC allocation																								w		
ENTSO-E monitoring plan																										
Proposal for implementation framework for European platform for replacement reserves			w																						21/02/18 - 04/04/18	19/03/2018;
Proposal for implementation framework for European platform for frequency restoration reserves with manual activation				w		w																			Expected: May-June 2018, pot. June-July 2018	27/03/2018;
Proposal for implementation framework for European platform for frequency restoration reserves with automatic activation					w																				Expected: May-June 2018; pot. June-July 2018	26/03/2018;
Proposal for implementation framework for European platform for imbalance netting																									15/01/2018 - 15/03/2018	20/06/2018

ENTSO-E Drafting Proposal	NRAs Approval preparation
Consultation	NRAs Approval publication
w	Workshop
ENTSO-E Proposal submission	

Source ENTSO-E website

The background is a satellite-style image of the Earth at night, showing city lights. Overlaid on this are numerous glowing blue lines that curve and intersect across the globe, representing a global energy network.

*Thank you!*

[www.energy-community.org](http://www.energy-community.org)

## *Background slides*

## Methodologies

# EU: high-level structure of market network codes

All TSOs /(NEMOs)  
All NRAs

Pan-European  
terms & conditions /  
methodologies /  
platforms



Relevant TSOs  
/(NEMOs) & NRAs

Regional (CCR)  
terms & conditions /  
methodologies /  
platforms



Relevant TSOs  
/(NEMOs) & NRAs

National (CCR)  
terms & conditions /  
methodologies /  
platforms



*EC intervenes when no agreement is reached on proposals by TSOs / NEMOs*

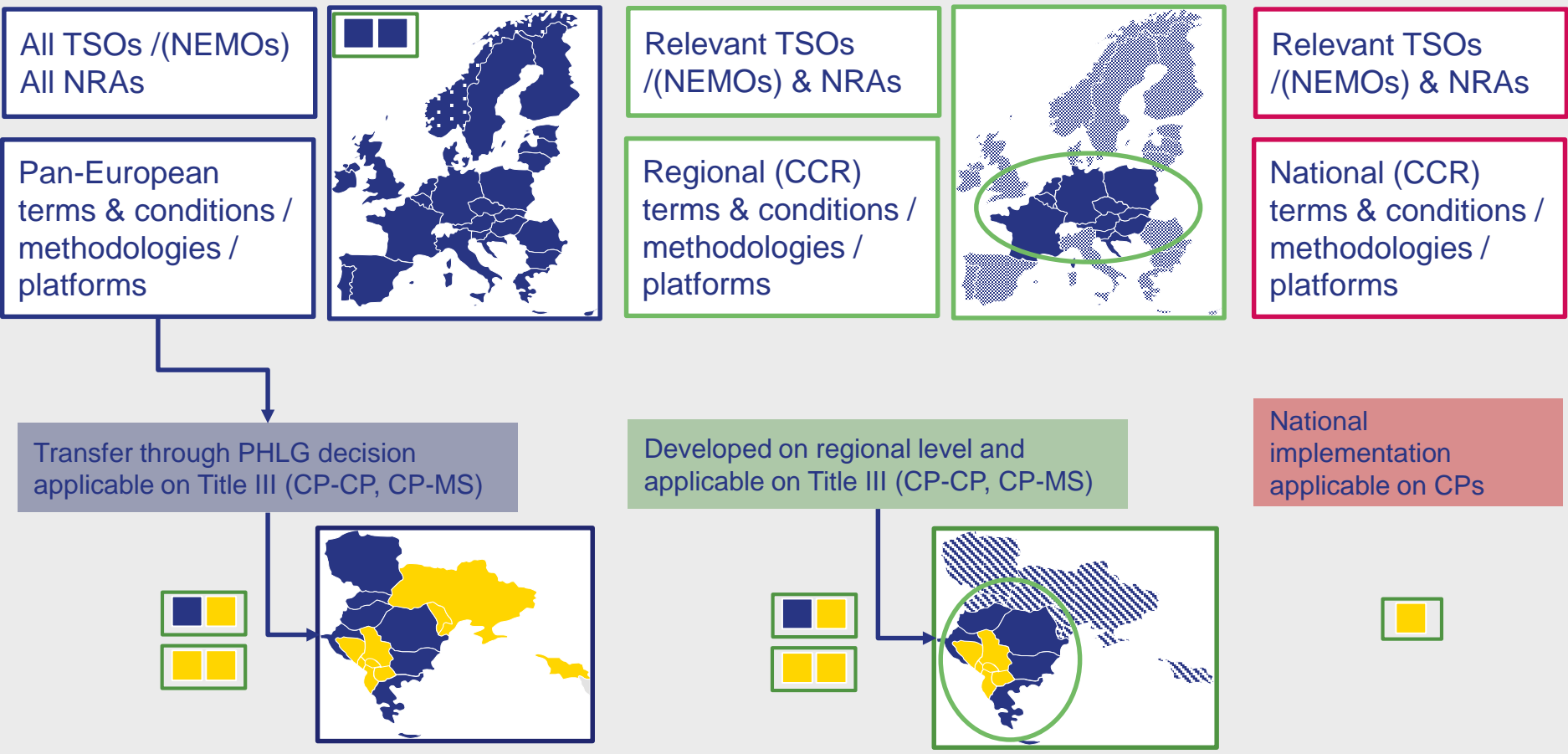


*ENTSO-E's role in assessments, drafting, facilitation, coordination, reporting, etc.*



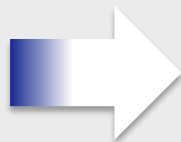
*ACER's role in adopting methodologies in case of failure by TSOs/NRAs*

# Adapted approach for the EnC



## Voting

**EU GL**  
TSOs/NEMOs voting



**EnC GL**  
TSOs/NEMOs voting

## ***Pan-European methodologies:***

- Qualified majority

55% of MS + 65% of population of the EU

## ***Regional methodologies:***

- Qualified majority of the region

72% of MS + 65% of population of the region

***Region <5: consensus***

## ***Pan-European methodologies:***

- *Unchanged taken as part of EU acquis, applicable under PHLG decision requiring national transposition in CPs*

## ***Regional methodologies:***

- Qualified majority of the region

2/3 of the CPs/MSs of the region

***Region <3: consensus***