

# ENTSO-E Operational Security Network Code

in the context of ACER's framework guidelines  
and the objectives of the 3<sup>rd</sup> package

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*ACER workshop on OS NC*  
*09 April 2013, Ljubljana*



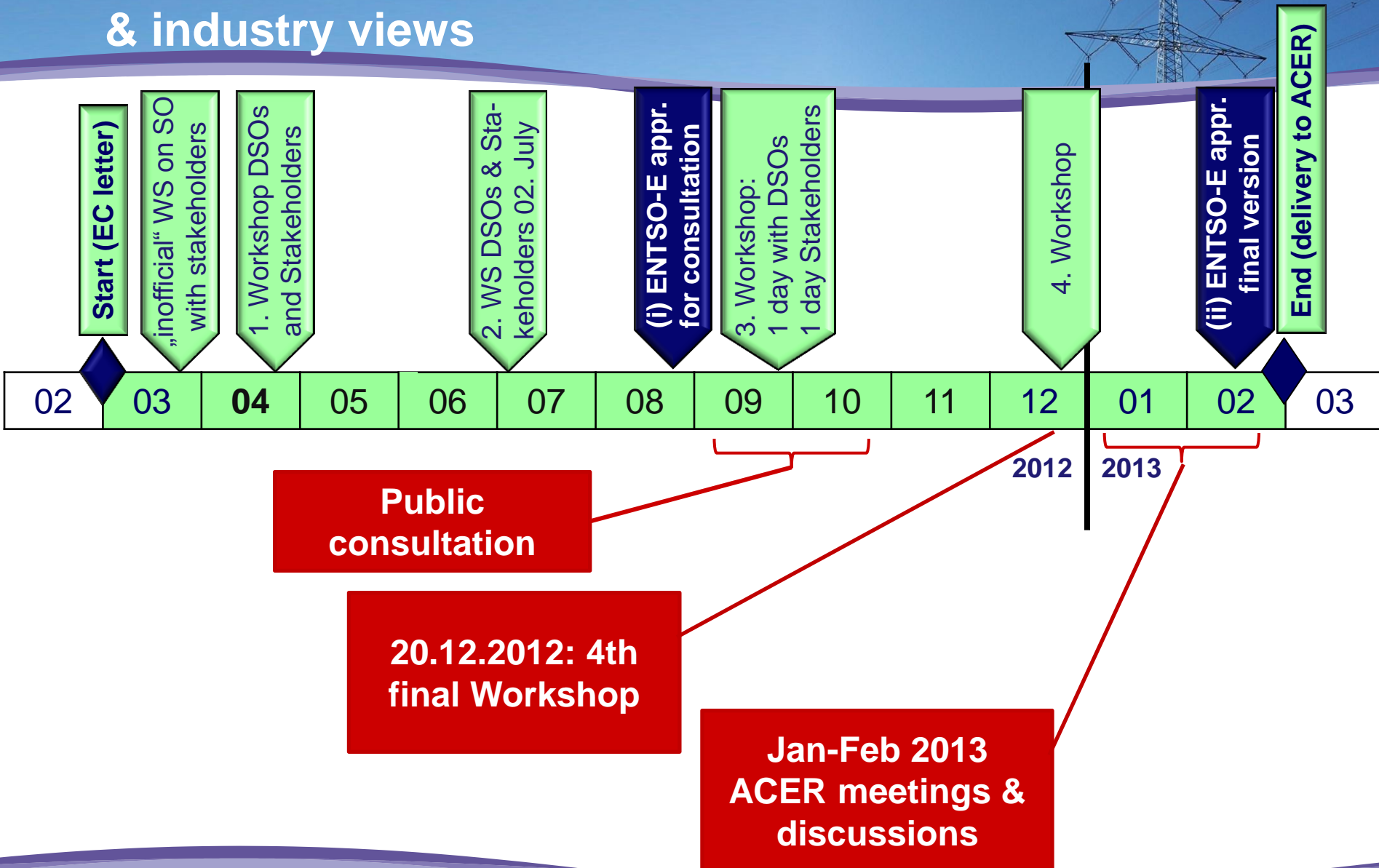
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**OS NC development & integration of stakeholders' and industry views**

**OS NC requirements in the context of EC legislation and ACER Framework Guidelines**

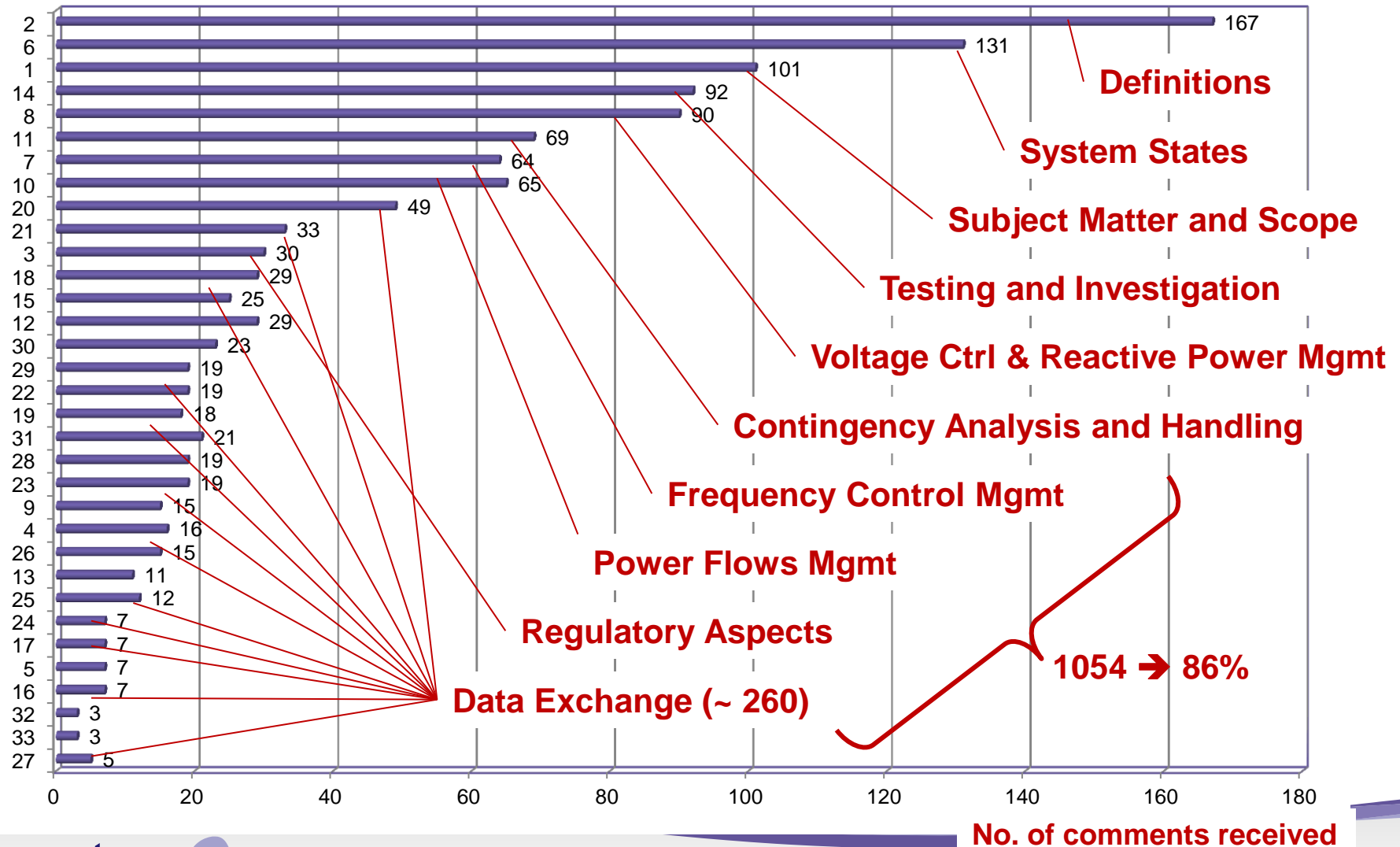
**OS NC requirements to ensure Operational Security throughout the EU**

# OS NC development and integration of stakeholders' & industry views

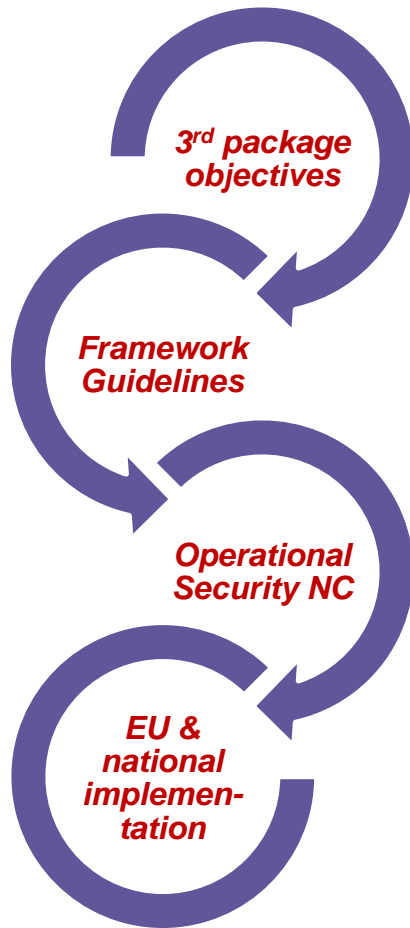


# OS NC development and integration of stakeholders' & industry views – public consultation

## OS NC Article



# OS NC in light of ACER Framework Guidelines' principles (1/2)



## OS NC general requirements

- Covering all provisions mentioned in the Framework Guidelines.
- Complementary with other NCs, most notably OPS, LFCR, RfG, DCC

## Scope and objectives

- Coherent and coordinated behaviour of interconnected Transmission Systems
- Achieving and maintaining satisfactory Operational Security Level

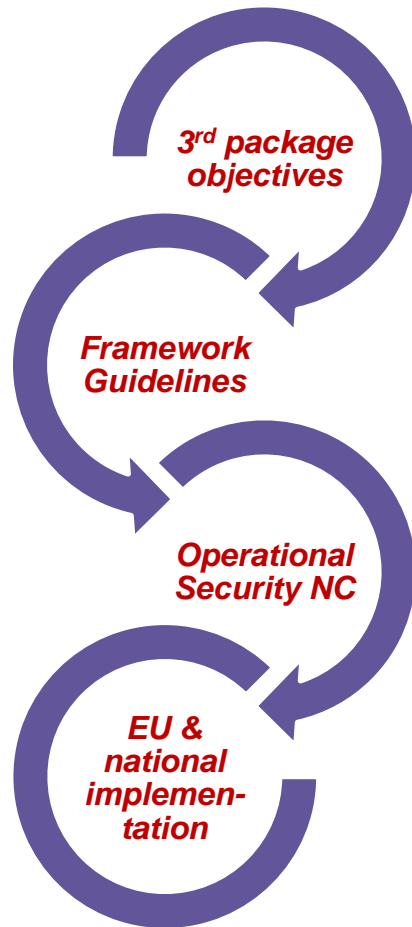
## Criteria

- Operational Security Performance Indicators -> monitoring of Operational Security

## Methodology and tools

- Minimum Operational Security criteria, rules, standards and requirements
- State Estimation, Operational Security Analysis, data exchange, TSOs/SGUs in all System States
- System States, frequency, voltage & reactive power, short-circuit s, stability, protection

# OS NC in light of ACER Framework Guidelines' principles (2/2)



## Roles and responsibilities

- Minimum set of Operational Security provisions to be met by any TSO, DSO or SGU
- Coordinated remedial action plans with cost sharing principles -> NRA

## Information exchange

- Timing and content of data exchange between TSOs, TSOs and DSOs, and SGUs
- Common Grid Model. real-time and configuration information, compliance / monitoring

## Implementation

- Within and between Synchronous Areas
- Perspective and relation to other network codes (most notably system operation, RfG and DCC)

# OS NC – maintaining / ensuring Operational Security in the EU (1/2)

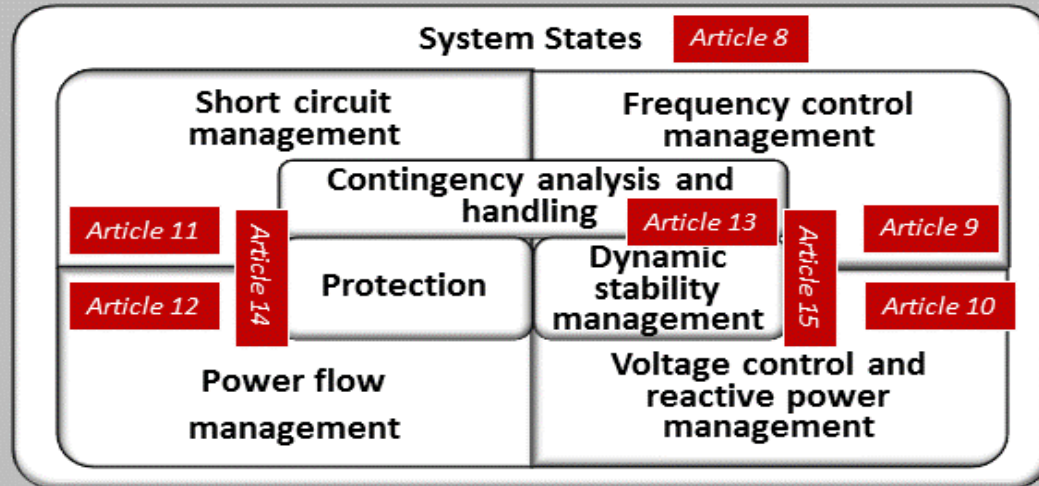
- **Operational Security requirements and principles for Transmission Systems**
- **Applicable to all TSOs, DSOs and SGUs**
- **Specific and detailed provisions related to Normal & Alert System State**
- **General provisions related to Emergency & Blackout State and Restoration**
- **Provisions for training and certification**

# OS NC – maintaining / ensuring Operational Security in the EU (2/2)

**1. GENERAL PROVISIONS:** Subject matter and scope, Definitions, Regulatory aspects and approvals, Recovery of costs, Confidentiality obligations, Agreements with TSOs not bound by this Network Code

Articles 1-7

## 2. OPERATIONAL SECURITY REQUIREMENTS



## 3. DATA EXCHANGE

Articles 16-29

## 4. TRAINING

Operational training and certification

Article 30

## 5. COMPLIANCE

Responsibility of the SGUs

TSOs, DSOs Responsibilities

Common testing & analysis

Articles 31-33

Amendments

Entry into force

## 6. FINAL PROVISIONS

Article 34-35



# Summary and next steps

- The OS NC specifies **provisions and tools for ensuring Operational Security throughout the EU and necessary fundamentals for other System Operation Network Codes**
- ENTSO-E is grateful for **extensive stakeholder cooperation and valuable feedback** during the workshops, public consultation and discussions, enabling OS NC improvements and preparing it for adoption as EU Regulation.
- ACERs current task to assess that the Network Code complies with the **principles and objectives of the Framework Guidelines**, is essential for the successful final implementation of the code.

# Thank you for your attention

**Further information on the development of the OS NC:**

<https://www.entsoe.eu/major-projects/network-code-development/operational-security/>

**Further information on the whole portfolio of Network Codes:**

<https://www.entsoe.eu/major-projects/network-code-development/>

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