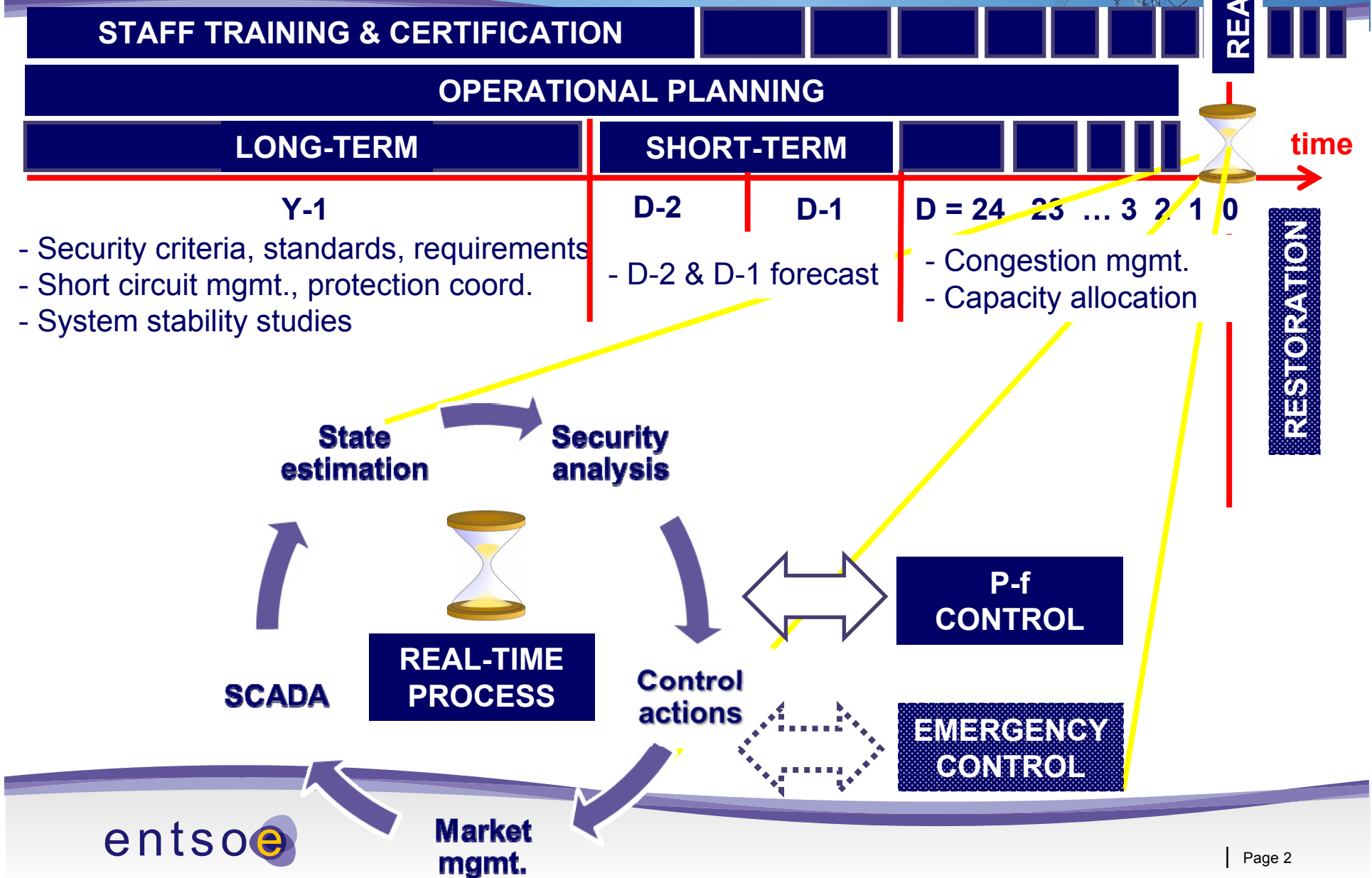
A satellite view of Europe at night, showing the continent illuminated by city lights against the dark blue background of the Earth and the starry night sky. The image is used as a background for the top half of the slide.

Framework Guidelines & Network Codes

System operation Related Network Codes

Florence Forum
22-23 May 2012

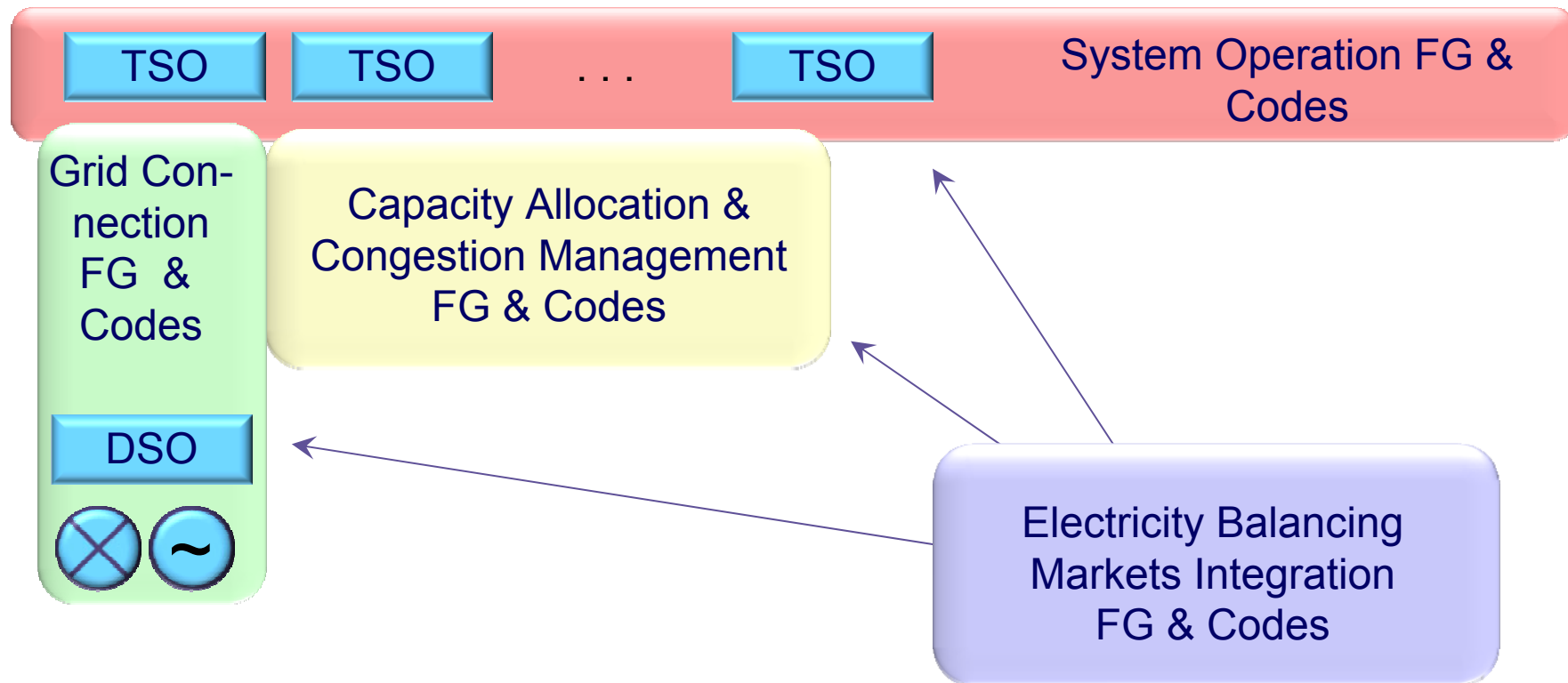
System Operation in Time



System Operation Scope & Interactions

Source: ERGEG presentation on FG and Codes for System Operation,
XIX Florence Forum, 13-14. December 2010

http://ec.europa.eu/energy/gas_electricity/doc/forum_florence_electricity/meeting_019.zip



Highlights

- **System Operation Network Codes**
 - Roadmap
 - Stakeholders' involvement
- **Operational Security NC**
- **Operational Planning & Scheduling NC**
- **Future Prospects**

Highlights

- **System Operation Network Codes**
 - Roadmap
 - Stakeholders' involvement
- Operational Security NC
- Operational Planning & Scheduling NC
- Future Prospects

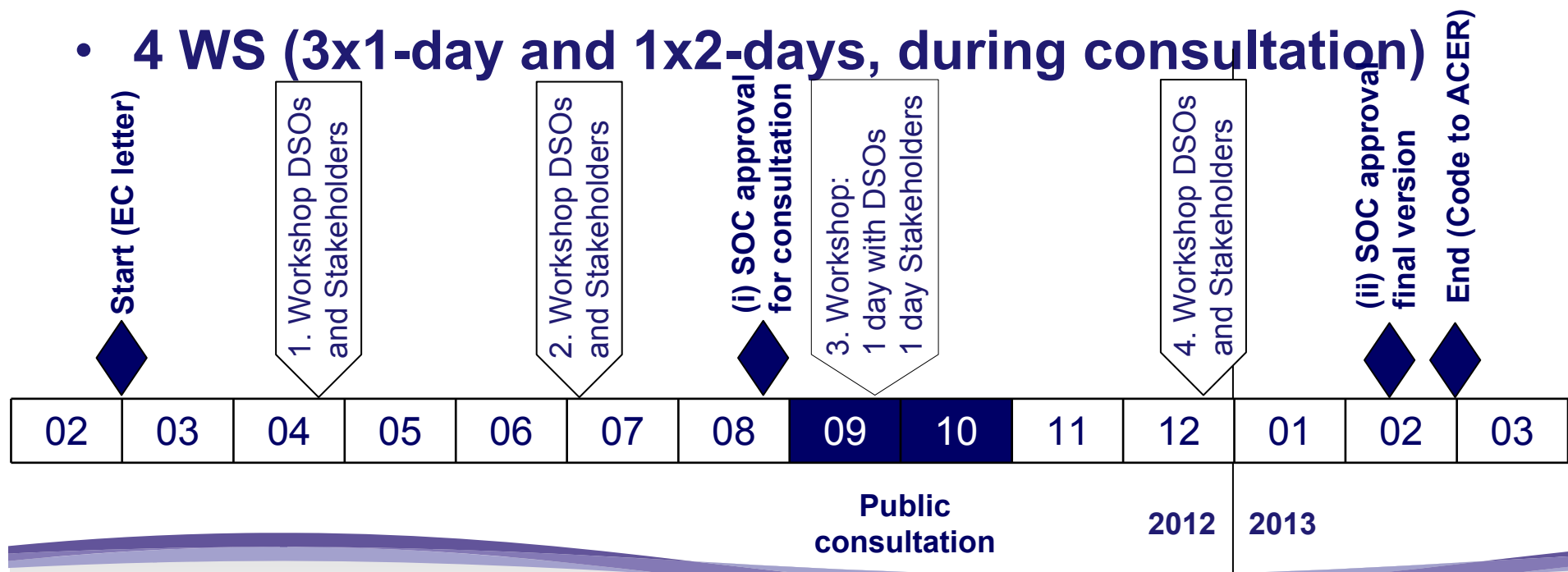
- **ACER FG for System Operation: 02. Dec. 2011**
- **Operational Security NC**
 - 01. March 2012 – 01. March 2013 (formal process started)
 - Public Consultation: September-October 2012
- **Operational Planning and Scheduling NC**
 - 01. April 2012 – 01. April 2013 (formal process started)
 - Public Consultation: October-November 2012
- **Load Frequency Control and Reserves NC**
 - 01. July 2012 – 01. July 2013 (formal process not yet started)
 - Public Consultation: March- April 2013

Highlights

- **System Operation Network Codes**
 - Roadmap
 - Stakeholders' involvement
- Operational Security NC
- Operational Planning & Scheduling NC
- Future Prospects

Stakeholders' Involvement (Example: OS NC)

- Start 03/2012, end 03/2013
- 2 approvals by SOC: (i) consultation; (ii) final version
- 4 WS (3x1-day and 1x2-days, during consultation)



Stakeholders' Involvement (*cont'd*)

- 4 Workshops with Stakeholders
- 4 Workshops with DSOs Technical Expert Group
- 2-months Public Consultation
- Ad-hoc meetings, exchange of views, on-line discussions, etc.
- Full commitment to transparency, early involvement, non-discriminatory approaches in line with Regulation (EC) 714/2009
- Integrating lessons-learned from the Pilot Projects

Highlights

- System Operation Network Codes
 - Roadmap
 - Stakeholders' involvement
- **Operational Security NC**
- Operational Planning & Scheduling NC
- Future Prospects

OS Code guiding principles & Drafting Team („how we do it“ and „who is doing it“)

- Setting out clear and objective **minimum requirements** for the real-time operational security
- Defining goals to be reached to keep the transmission system in **continuous operation**
- Contributing to a **harmonised framework for cross-border exchange** of electricity
- Supporting **non-discrimination**, effective **competition** and efficient functioning of the **Internal Electricity Market**

**SO Codes
Drafting Teams
Members**

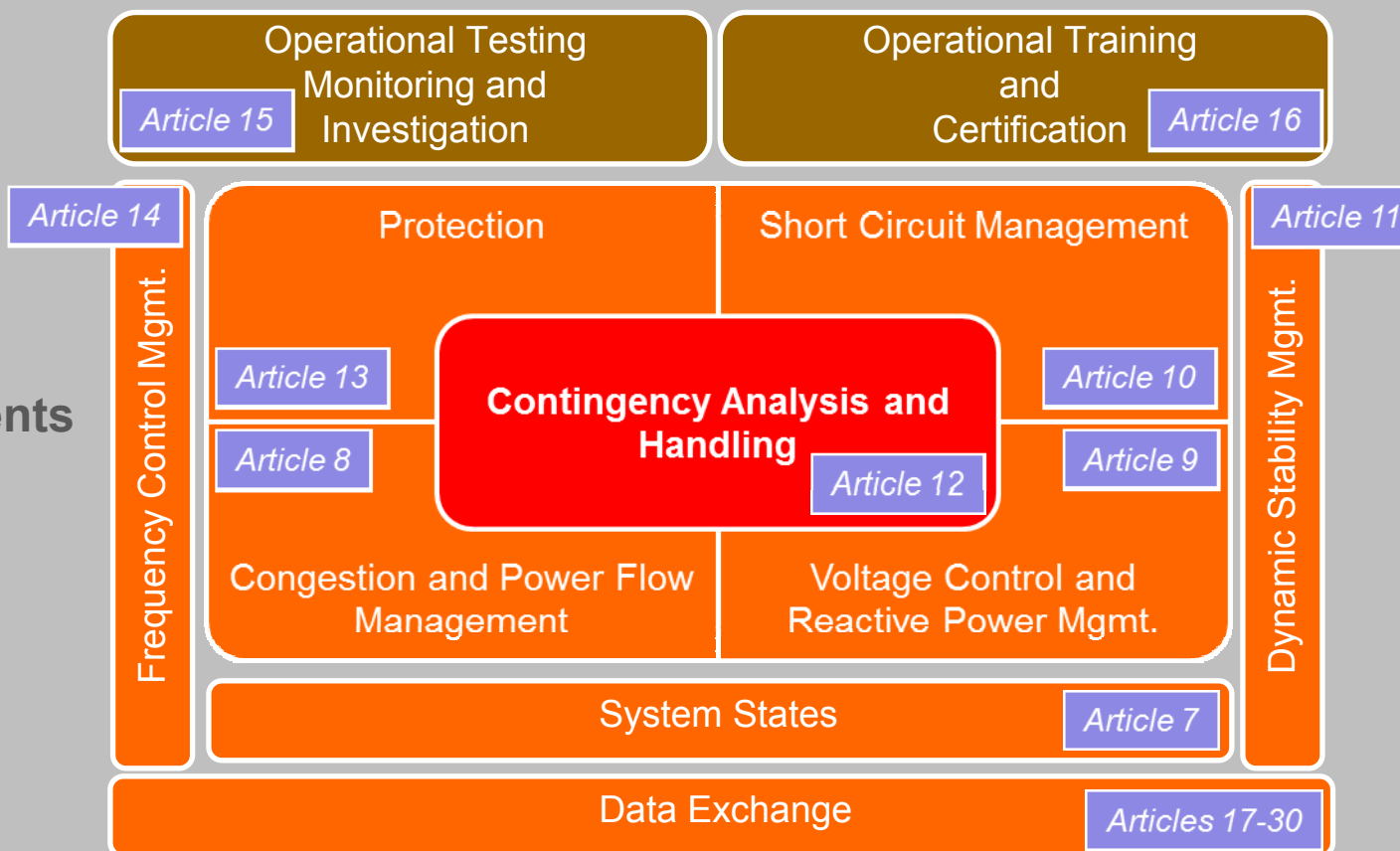


Operational Security Code Structure

Articles 1-6

General Provisions: Subject matter, Definitions, Scope, Regulatory aspects, Confidentiality, Relation with National Law

Requirements



Articles 31-41

Compliance

Derogations

Liability

Final provisions

Highlights

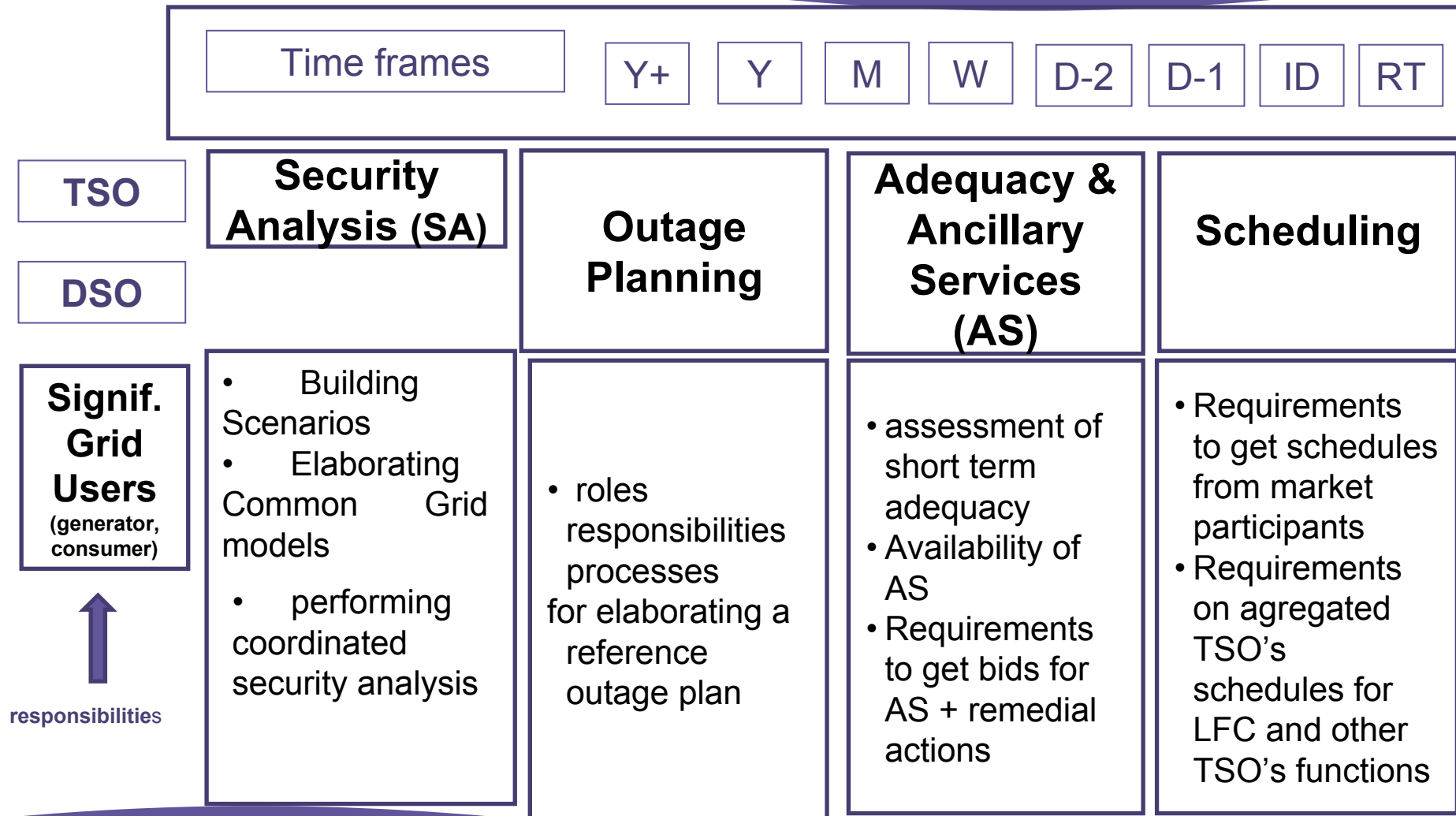
- System Operation Network Codes
 - Roadmap
 - Stakeholders' involvement
- Operational Security NC
- **Operational Planning & Scheduling NC**
- Future Prospects

Operational Planning and Scheduling

Ensuring a coherent and coordinated preparation of real-time operation by:

- ❑ **Making compatible in a technical and economical way the needs for maintenance of Grid elements and Grid Users facilities under system security constraint, this involves:**
 - Information Exchanges procedures between TSO and Grid Users on given timeframes to identify the needs, the flexibilities and to explore the envelope of opportunities
 - Agreements on period of works and flexibility capacities
- ❑ **Assessing the security of the interconnected system at all times frames, in connection with planned outages and preparing remedial regarding**
 - Flows constraints
 - Adequacy constraints

Operational Planning and Scheduling NC



Highlights

- System Operation Network Codes
 - Roadmap
 - Stakeholders' involvement
- Operational Security NC
- Operational Planning & Scheduling NC
- **Future Prospects**

Prospects & expectations – overview of targets

	Code to ACER	ACER Opinion	EC/Comitology (?)	EC / entering into force (?)
Operational Security	01.03.2013	01.06.2013	01.06.2014	Q3/2014
Operational Planning & Scheduling	01.04.2013	01.07.2013	01.07.2014	Q3/2014
Load-Frequency & Reserves	01.07.2013	01.10.2013	01.10.2014	Q4/2014

- **Emergency & Restoration > 2014**
- **Substituting respective parts of existing system operation rules and codes > 2015**
- **Effects on and coherence of national codes**



Thank you very much for your attention!