

Annex 4  
7 October 2009

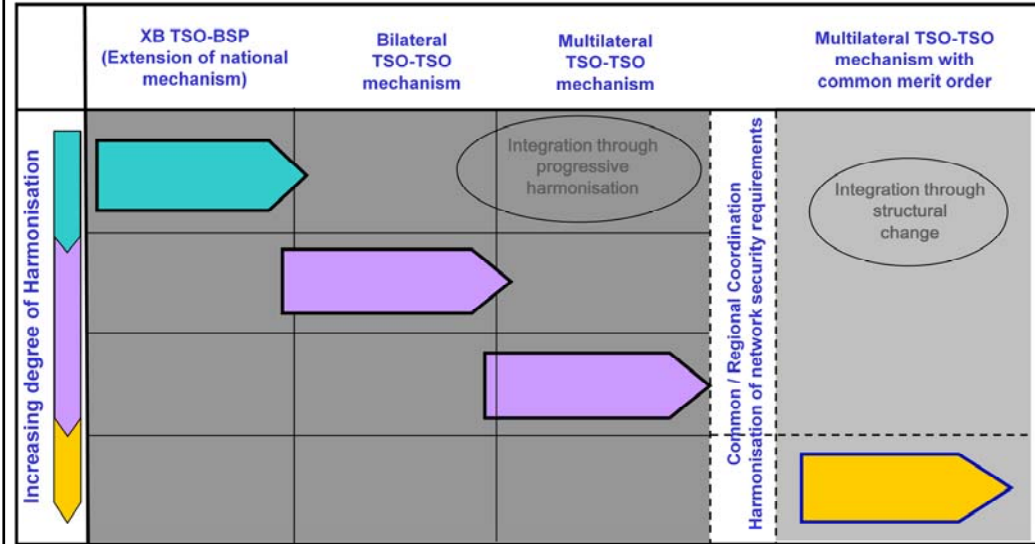
**Workstream Balancing  
Proposal for Target Model and Roadmap**

**Identification of integration stages  
and prerequisites**

## Roadmap - Principles

- Full harmonisation of balancing markets is not a prerequisite for cross-border balancing
- Pragmatic approach is important
- Major steps:
  - ✓ Pilot projects (Social welfare gains - demonstrated in KU Leuven studies)
  - ✓ Harmonisation of gate closures and technical characteristics ( + roles and responsibilities of all major parties)
  - ✓ Introduction of cross-border intraday supports progress in cross-border balancing
  - ✓ Case by case (in a feasible “area”) development of multiple TSO cooperation (ending in coordinated system operation)

## Proposal of roadmap for the Integration of Balancing Markets



## X-border Balancing Models: pre-requisites and harmonisation requirements

	Basic compatibility	Harmonisation by TSOs	Central governance	
	Cross-border extension of national balancing mechanisms	Bilateral TSO-TSO exchanges (without c.m.o.)	Multilateral TSO-TSO exchanges (without c.m.o.)	TSO-TSO exchanges with c.m.o
<b>Prequalification criteria (technical requirements for suppliers)</b>	Not harmonised, but TSO arrangement to ensure the same product quality	Not harmonised, but TSO arrangement to ensure the same product quality	Not harmonised, but TSO arrangement to ensure the same product quality	Harmonised
<b>Delivery mechanism (technical mode of activation)</b>	Not harmonised, but TSO arrangement to ensure the same product quality	Not harmonised, but TSO arrangement to ensure the same product quality	Not harmonised, but TSO arrangement to ensure the same product quality	Harmonised
<b>Bid construction process</b>	BSPs according to BM rules of corresponding TSO	TSOs on the basis of bilateral rules	TSOs on the basis of multilateral rules	BSPs on the basis of common rules
- <i>Product features (size, activation time, duration of activation)</i>	Not harmonised	Exchanged products are tailor-made by TSOs	Exchanged products are tailor-made by TSOs	Harmonised
- <i>Payment schemes</i>	Not harmonised	Pricing of exchanged products tailor-made by TSOs	Pricing of exchanged products tailor-made by TSOs	Harmonised
- <i>Shared volumes (in all cases, "surpluses" beyond each TSO's security reserve requirement)</i>	Some surpluses offered by BSPs willing to participate	All surpluses of 2 TSOs (combined in offers by the TSOs)	All surpluses of involved TSOs (combined in offers by the TSOs)	All offers directly put together
<b>Implementation of exchange</b>	BSPs offer whenever possible (depending on availability of capacity, intraday and national balancing markets), each TSO approves and activates according to security and interconnection situation	Each TSO offers and activates according to security and interconnection situation	Each TSO offers and activates according to security and interconnection situation	TSOs share all offers - regional process of activation on the basis of common security and interconnection situation
- <i>Gate closure time of cross-border intraday market</i>	Not harmonised, BSPs offer whenever possible	Not harmonised, TSOs decide when to share offers	Not harmonised, TSOs decide when to share offers	Harmonised for products to be shared
- <i>Security criteria</i>	Not harmonised	Not harmonised	Not harmonised	Harmonised
<b>Governance</b>	contractual arrangements (coordination limited to involved BSPs and TSOs)	contractual arrangements (bilateral coordination between TSOs with ad-hoc rules for exchanges)	complex contractual arrangements (extensive multilateral coordination between TSOs with ad-hoc rules for exchanges)	central governance with common rules for exchanges and security management
<b>TSO involvement</b>	low (information exchange)	increasing	high	very high

Colour coding on this slide reflects the topics in previous slide.

## Comments

- Specific projects don't have to go through all steps, theoretically you could go to a common merit order in one step
- Intra-day harmonisation isn't a prerequisite, but there are technical interdependencies. Hence, a well functioning integrated intra-day market will increase the efficiency of the balancing market
- In the case of a common merit order intra-day gate closure has to be harmonised
- Each step brings additional benefits, but requires:
  - Legal and regulatory changes
  - Greater harmonisation of Balancing Mechanisms
  - Practical changes (coordination, IS changes)
- Need of a careful analysis before each step can be implemented:
  - Analysis of impacts on system safety
  - Economic cost/benefit analysis

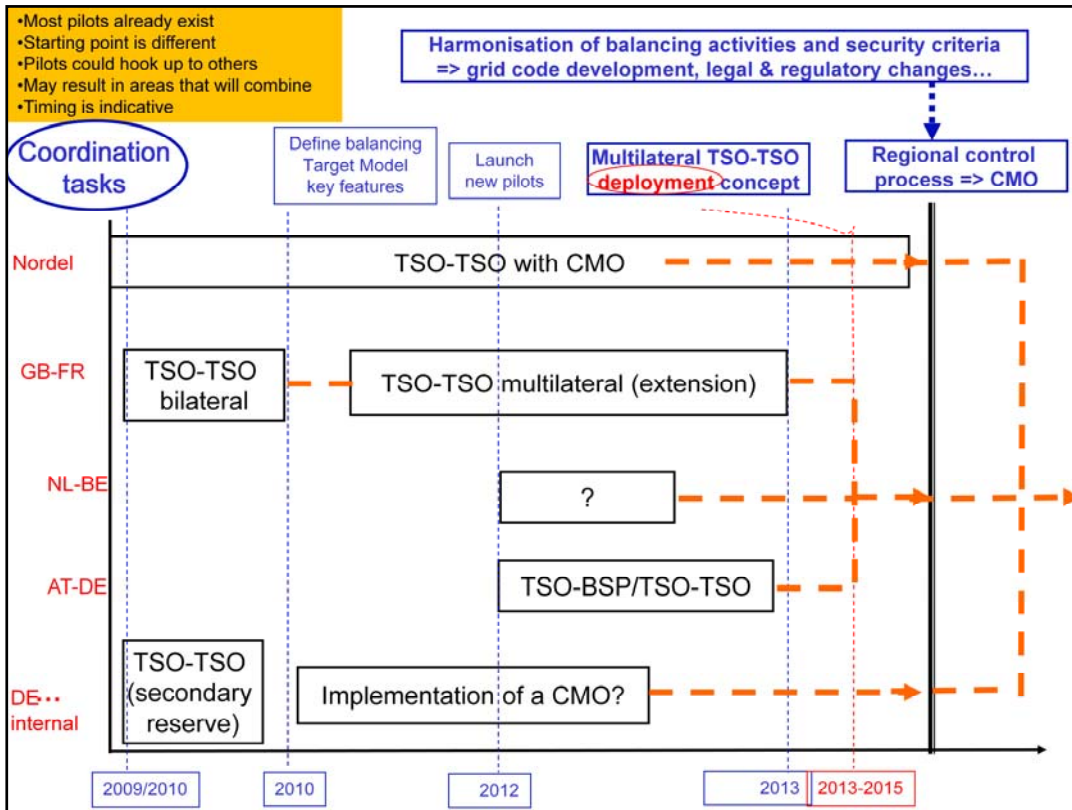
**Integration Road Map  
Regional Dimension**

**(Pilot Projects)**

## List of identified pilot projects

- Projects already implemented:
  - ✓ Nordic area
  - ✓ German & Swiss actors bidding in the French Balancing Mechanism
  - ✓ France/UK TSO-TSO (interim phase started in 03/09, in progress)
  
- Projects not implemented, planned or in discussion:
  - ✓ France/Spain TSO-TSO => discussions starting
  - ✓ Germany/Austria: Hybrid (TSO-Market Participants and TSO-TSO)
  - ✓ Belgium/Netherlands (academic suggestion)
  
- Other identified projects:
  - ✓ German TSO-TSO (inside Germany started in 12/08, in progress)





**Option 2: representation of a roadmap of initiatives in "Capacity Calculation" format**

