

Capacity calculation & zone delimitation

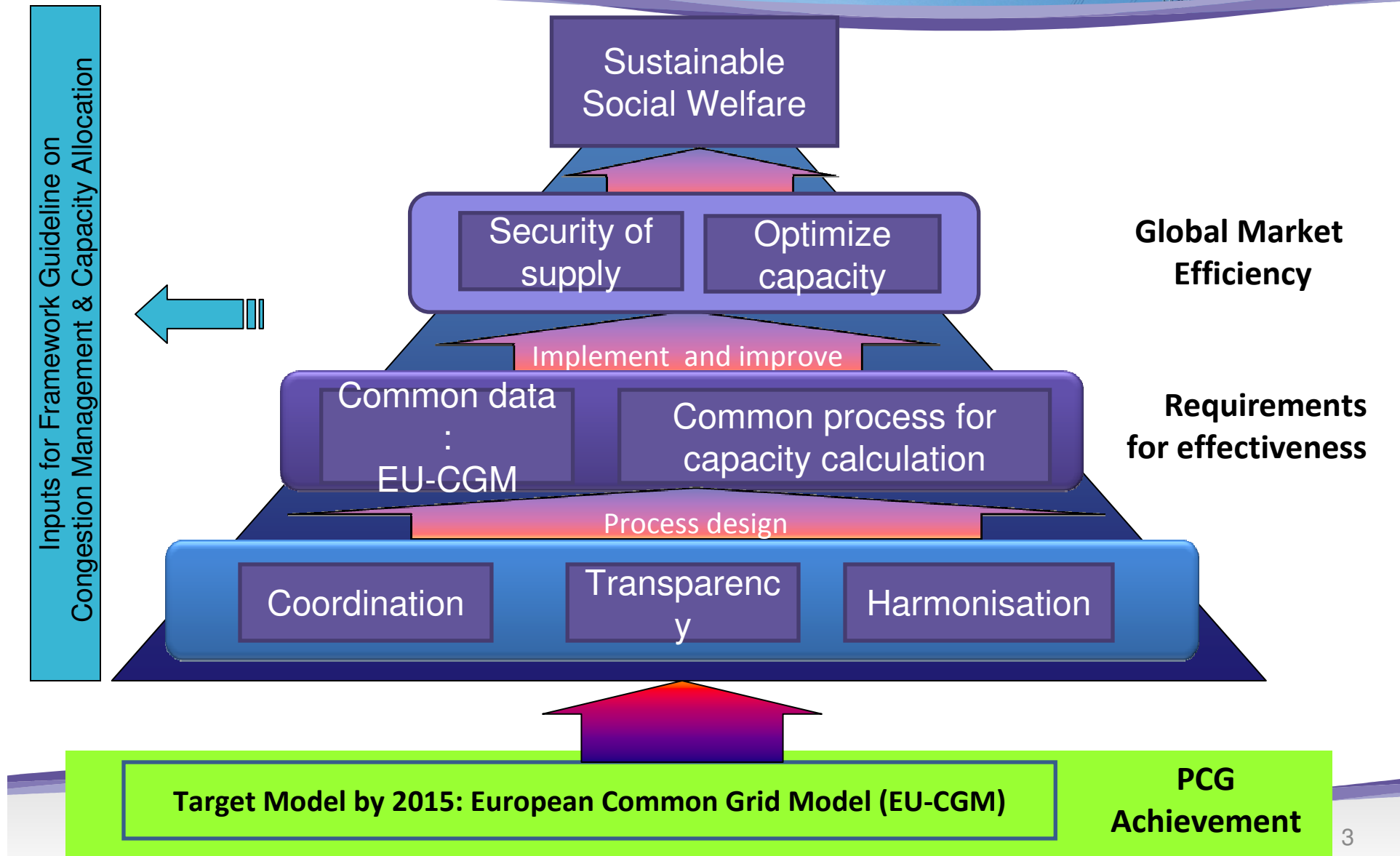
Report from AHAG Capacity Calculation Project

ERGEG Workshop
Brussels, 18 October 2010

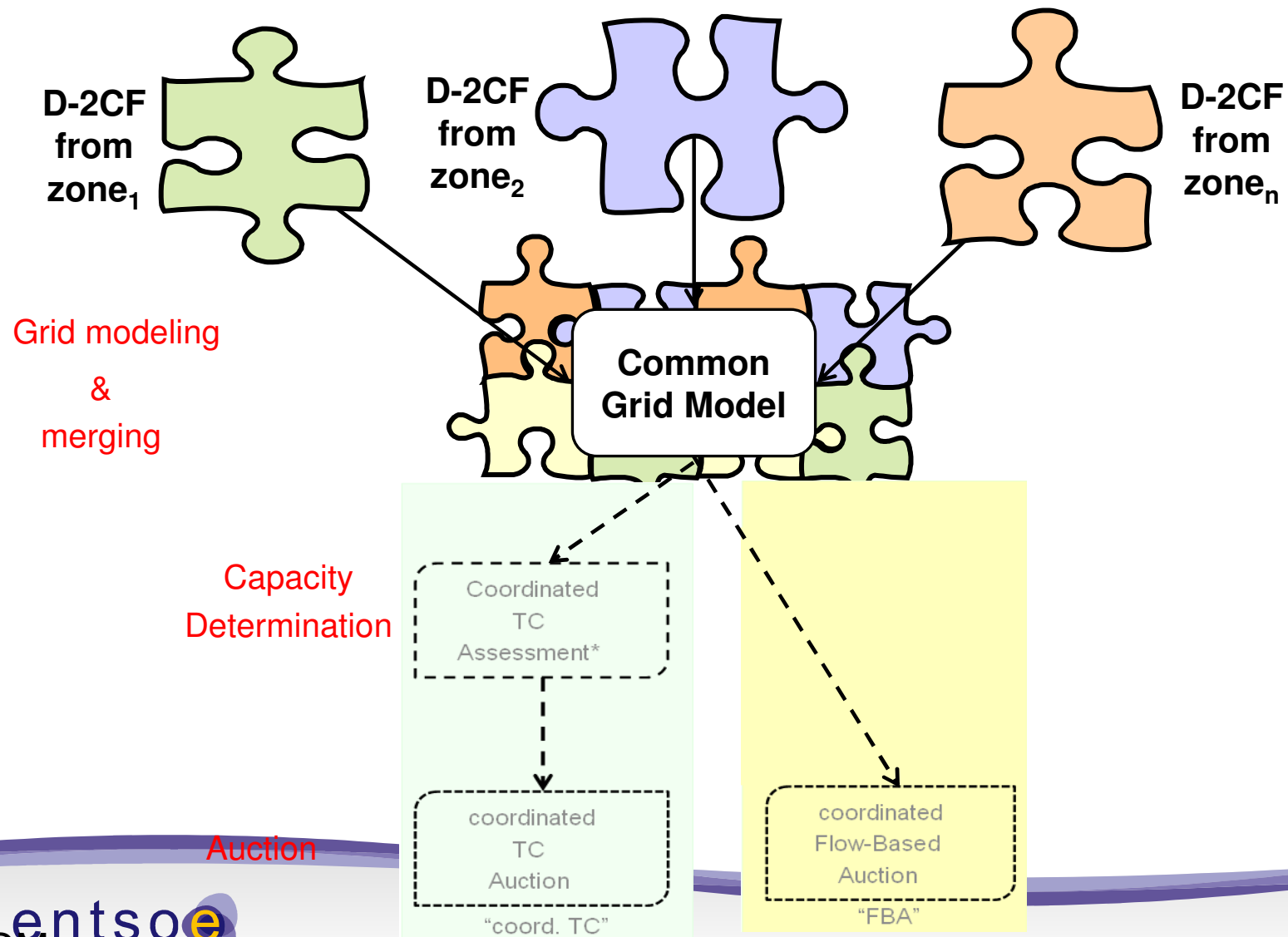
Main topics

- Key issues from AHAG Capacity Calculation Project
- Main comments regarding the Draft Framework Guidelines on capacity Allocation and Congestion Management

Capacity Calculation Project: background & objectives



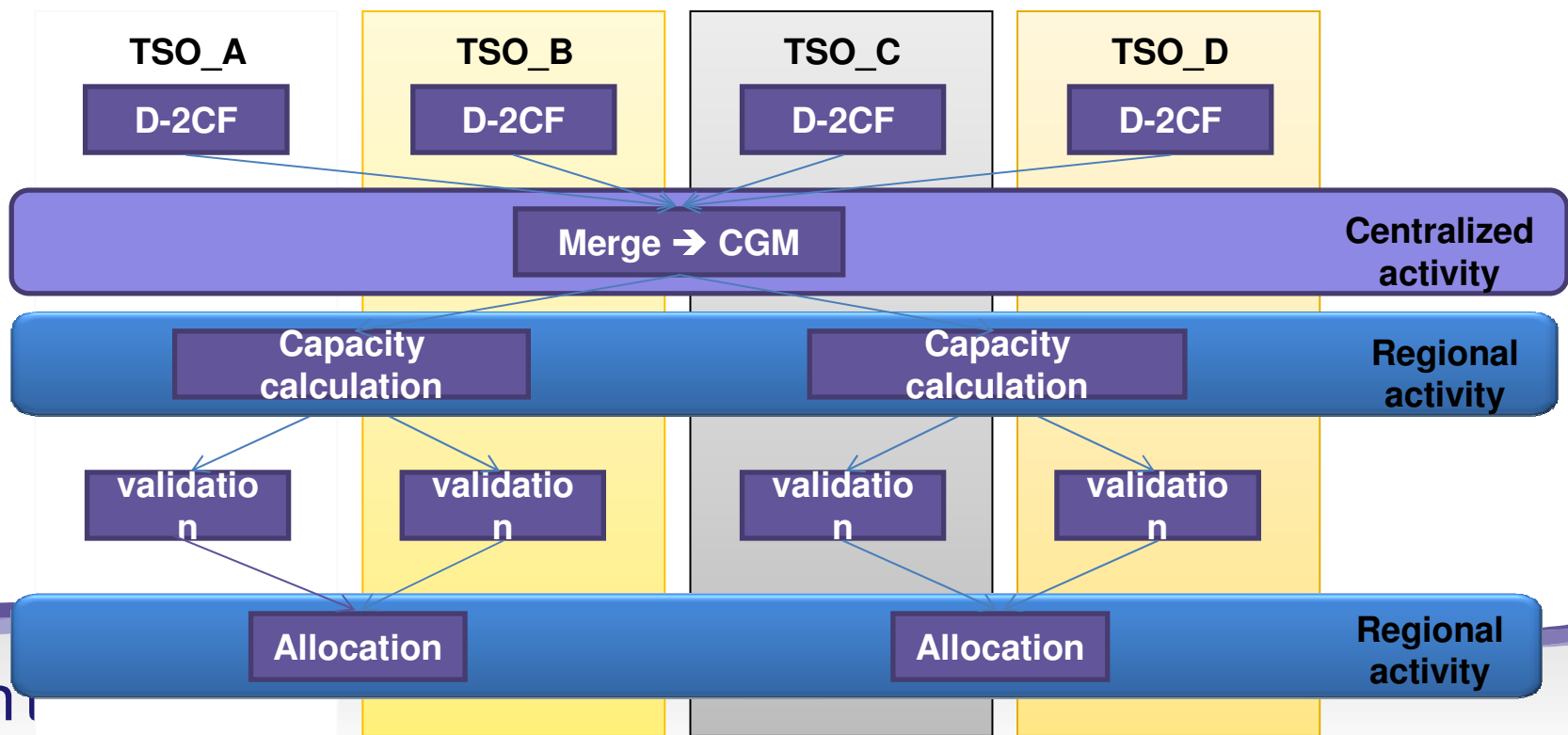
Common Grid Model and coordinated capacity calculation From PCG achievement : design for day ahead



Coordinated capacity calculation process for day ahead : mid-term target (2015)

5 main common steps for capacity calculation up to allocation

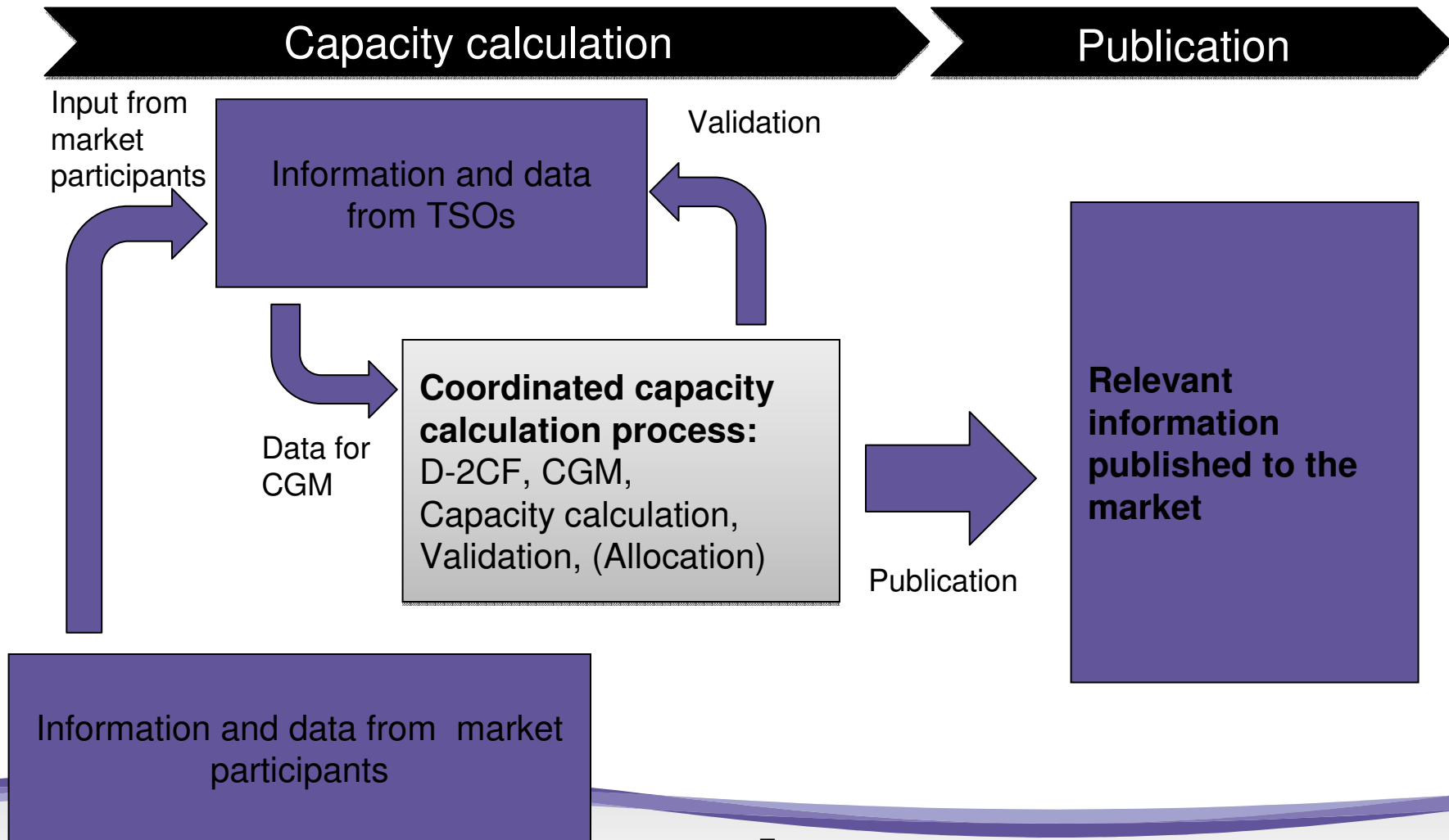
- D-2CF : base case for day ahead = description of the power system
- Merging the base case to obtain EU-Common Grid Model
- Capacity calculation
- Validation
- Allocation



Principles for coordinated capacity calculation

- Main orientations of FG CACM: in line with AHAG CCP work
 - Common and coordinated process
 - Transparent process
 - Common Grid Model as a main milestone of the process
 - Coordination and data exchange to make security analysis and capacity calculation
 - Starting from PCG's achievement , 2 methods studied as 2015 targets: coordinated ATC and FB
 - Using a pragmatic and stepwise approach
 - Coherence and compatibility between different timeframes and different regions
- ENTSO-E recommendations:
 - Capacity level must be in coherence with the power electric system
 - Long term capacity must take into account the level of uncertainties
 - TSO are responsible to define the level of long term capacity

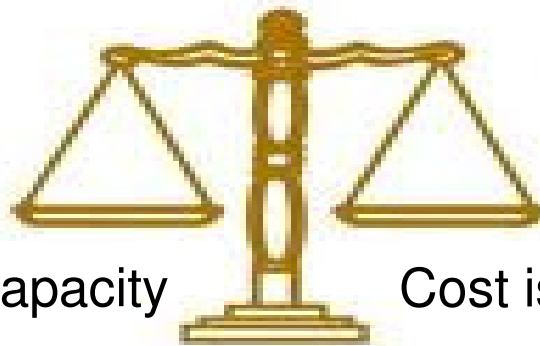
Transparency framework for coordinated capacity calculation process



Firmness of capacity

- The capacity level should be coherent to the physics of the grid (physical risks)

Firmness of capacity



Maximize capacity

Cost issues for TSOs

Being OK with security of the power system management

- ENTSO-E recommendations:
 - TSOs must have the guarantee that all firmness costs are covered and shared,
 - Harmonized regulatory framework is needed for cost sharing (i.e. for redispatch)

- Key issue dealt by the AHAG Capacity Calculation Project
 - Qualitative methodology to define bidding areas, under discussion with stakeholders
 - Why defining new bidding areas?
 - With which criteria/What are the main challenges?
 - What are the main impacts and consequences?
- ➔ *This should be an input to the related question in the consultation process (question 13)*
- Qualitative analysis is a major first step to understand fully the question
 - It should be a good basis and may be fine tuned for more accurate analysis

Zone delimitation: *Draft FG CACM:* *ENTSO-E recommendations*



- Proposal of new zone delimitations could be done by TSOs, and approved by NRA
- The FG provision to carry out a yearly survey on zonal delimitations (1.2.6.) would cause a heavy workload for TSOs due to the complexity of the task and the short time left to carry out the survey properly. Basic analyses or elementary surveys should be delivered in longer time intervals including conceivable scenarios (e.g. every 3 years).
- Social welfare is not the only element to consider: it should be more general (e.g. Market Design, Environmental issues, market power...)
- Zone definition, in terms of bidding areas should be the same for all time frames.
- The cost recovery issue for congestion management and firmness should be handled also in the context of zone definition where full and timely cost recovery needs to be ensured by NRAs.

Conclusion

- Basically AHAG CCP agrees with the main messages of the FG CACM
- Main issues to be further addressed:
 - Long term capacities
 - Firmness
 - Clarification and simplification related to the zones definition and evaluation
 - Compatibility of Flow-based with other initiatives



ANNEX

Main deliverables of AHAG CCP

- Design the coordinated capacity calculation principles
 - ✓ How to build the EU- Common Grid Model?
 - ✓ What are the data needed from the stakeholders and to be coordinated among TSOs?
- Provide an overview of the capacity calculation methods:
 - ✓ Illustration of the methodology for grid modelling and capacity calculation
 - ✓ The present status
 - ✓ Comparison between different methodologies for capacity calculation
- Coordinated reliability margins' assessment principles
- Principles for coordinated operational measures among TSOs to support firmness of capacities
- Principles for determining the sharing of capacities among the borders, depending on the methodology applied
- Transparency of the capacity calculation process towards market stakeholders