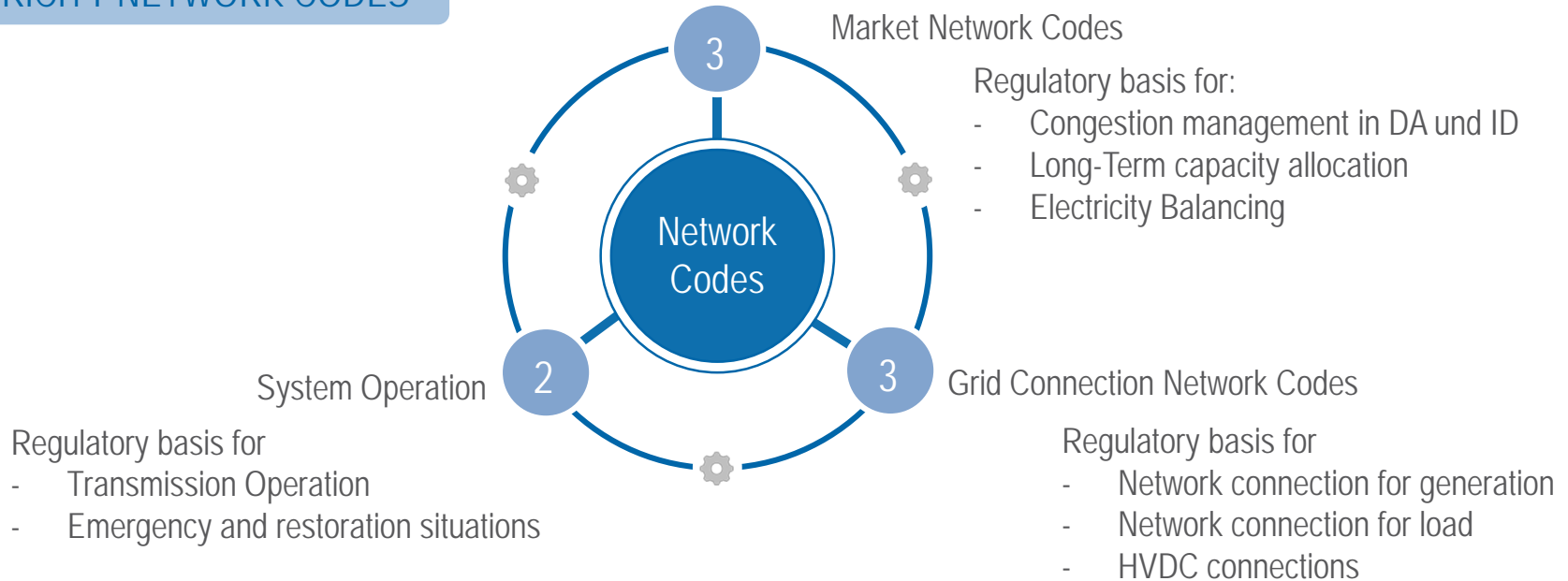




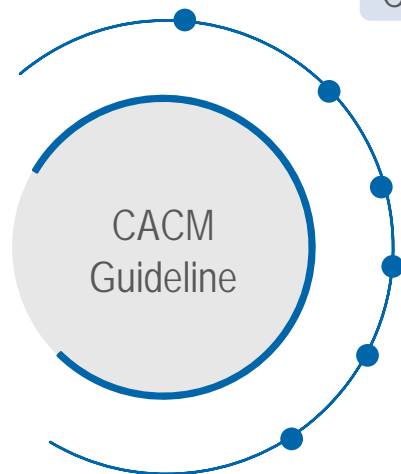
NEMOs & TSOs role in SDAC and SIDC

Energy Community, Workshop on Market Coupling

ELECTRICITY NETWORK CODES



CACM objective is overall market integration



Common EU-rules for TSOs, NEMOs and Market Participants in electricity sector

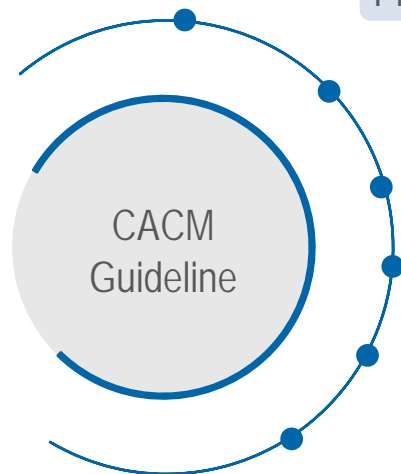
Coordination / harmonization of capacity calculation and allocation DA und ID

Complete coupling of European DA and ID markets

Entered into force as the first NC/Guideline

Developed following the Third Package

Includes numerous obligations for TSOs/NEMOs to elaborate TCMs



Provisions for allocation of scarce transmission capacities

Maximization of welfare in the wholesale market via flow-based capacity calculation

Criteria and provisions for implementation of harmonized methodologies

Provisions regarding algorithm, back-up procedures and fallback

Stepwise implementation of European DA and ID coupling

Criteria for NEMO nomination and definition of NEMO tasks

Market Coupling

- Harmonized minimum requirements for DA and ID
- Mainly flow-based capacity calculation
- Performed by Nominated Electricity Market Operators (NEMOs)

Structure and timeframes

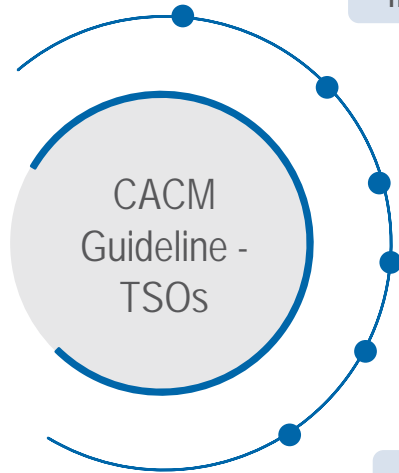
- Drafting of Terms and Conditions and Methodologies (TCMs) by TSOs and NEMOs
- Followed by approvals by NRAs / ACER
- Implementation by TSOs / NEMOs
- Potential amendments of TCMs

Key processes

- Definition of Capacity Calculation Regions (Art. 15)
- Methodologies for capacity calculation (Art. 20-26)
- Bidding Zone Review (Art. 32)
- NEMO Nomination (Art. 4)

Significant TSO processes to be established and performed

TSO tasks (selection)



Implement and perform capacity calculation

Establish TSO requirements for the algorithms

Validation of Market Coupling results

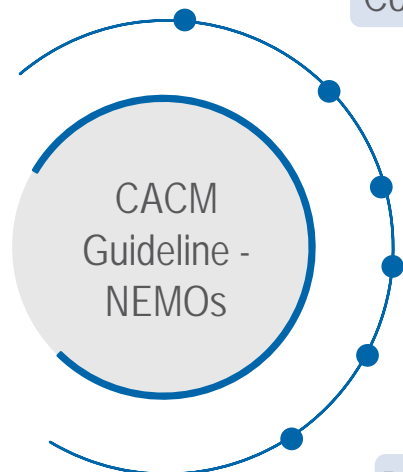
Responsible for Fallback procedures

Sharing of congestion rents and remedial action costs

Perform Bidding Zone Review

Significant NEMO processes to be established and performed

NEMO tasks (selection)



Common definition requirements and establishment of DA and ID algorithm

Implementing the MCO function

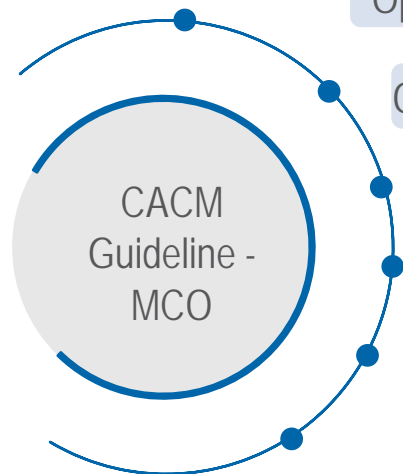
Operating the coupling processes

Information of market parties about results

Establishment of Back-up procedures

Perform the Central Counterparty role for clearing and settlement of transactions

Market Coupling Operator (MCO)



Optimal matching of buy and sell orders

Optimization of welfare in total

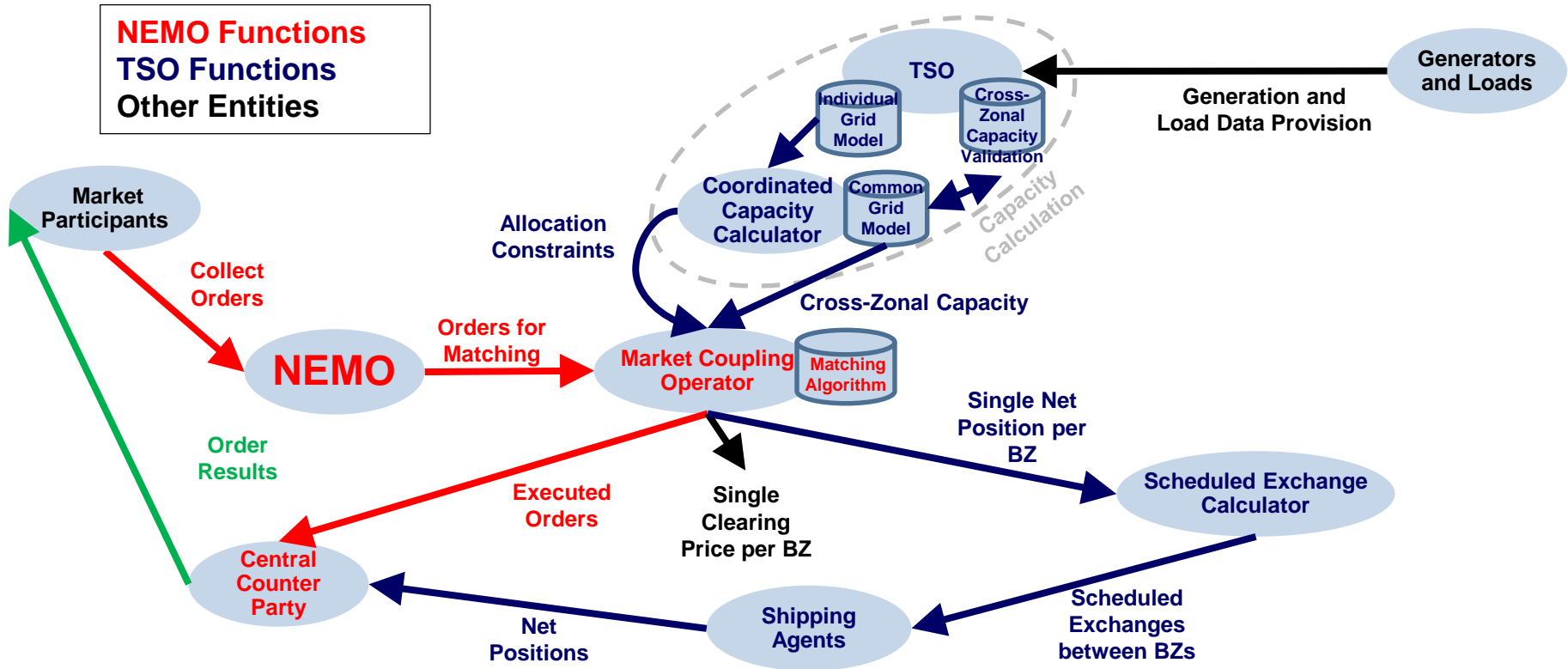
Coupling via implicit auctions in DA

ID Coupling is performed via continuous trading (complemented by auctions)

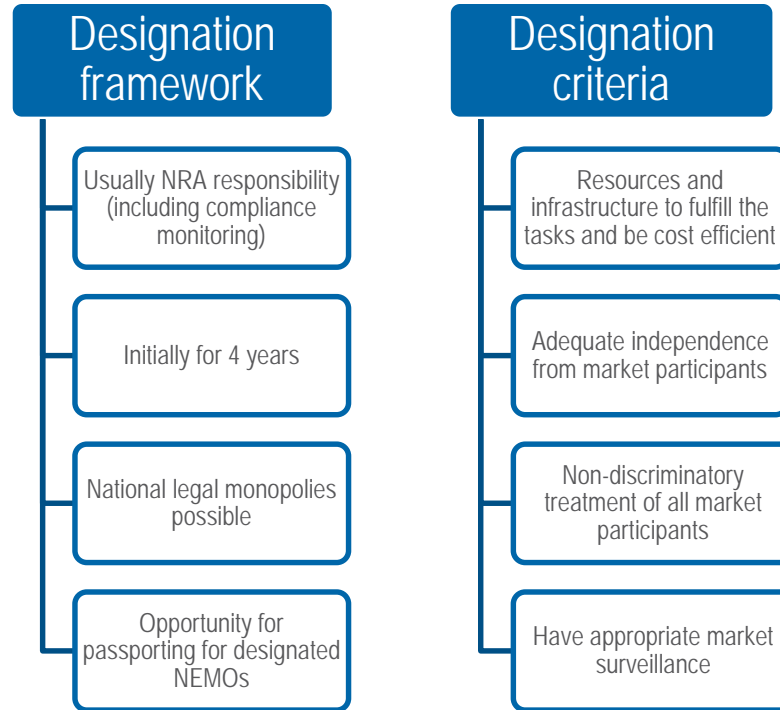
Usage of coupling algorithm (EUPHEMIA)

Establishment of DA und ID Coupling requires
cooperation of competing NEMOs

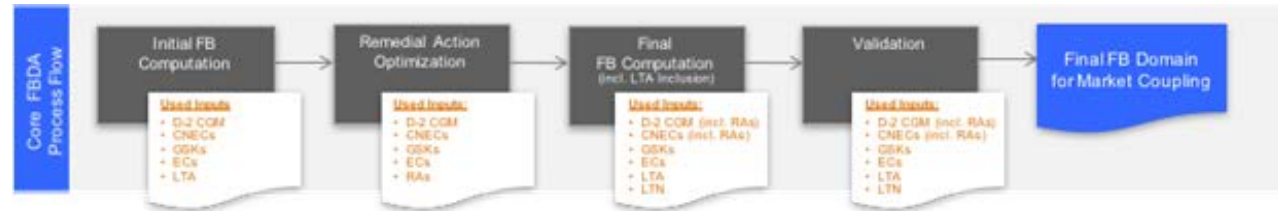
Market Coupling Process



NEMO designation is one of the first processes

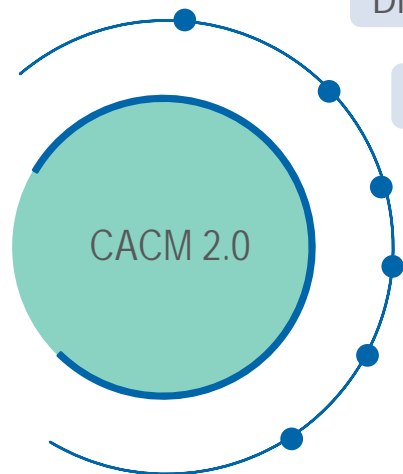


- Is a complex process
- Operational since June 2022
- Provides for better identification of limitations
- Patterns did not change dramatically
- Has also interfaces to other timeframes and needs to become aligned (ID)



Further challenges are currently processed

- Implementation delays – prioritization exercise
- Advanced hybrid coupling for interfaces between regions
- Nordic flow-based calculation implementation
- Harmonized (flow-based) capacity calculations – merging Core and IN
- Bidding Zone Review ongoing
- ...



Discussion on single MCO entity

Alignment and enhancement of capacity calculation

Clarifications and coordination with SO GL, and on cost sharing

Improvements to the BZR articles

- CACM implementation is a key project for overall market integration
- Implementation requires:
 - Close coordination on substance
 - A coordinated project management and cooperation between different entities
- Results show that it provides for significant benefits

