ENTSO-E Market Report and Capacity Calculation and Allocation Report 2021

ENTSO-E

14 September 2021

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Agenda

15:00 – Introduction & Opening Notes	*Kilian Kröger* (ENTSO-E Reporting on Market Integration WG Convenor) *Peter Scheerer* (ENTSO-E Market Committee Vice Chair)
15:10 – Market Report 2021 • FCA – Long-Term Markets • FCA & CACM – Updates of TSOs' projects • CACM – Day-Ahead Markets • CACM – Intraday Markets • EBGL – Balancing Markets • Further topics of the ENTSO-E Market Report 2021	*Martin Palkovský* (ENTSO-E, Member of JAO Supervisory Board) *André Estermann* (ENTSO-E Market Integration WG Convenor) *Gilbert Guntschnig* (SIDC TSO Project Manager) *Michèle Dion* (ENTSO-E WG Ancillary Services Convenor) *Kilian Kröger* (ENTSO-E Reporting on Market Integration WG Convenor)
15:55 – Capacity Calculation and Allocation Report 2021 • Evolution of the Capacity Calculation Regions • Performance Indicators for Capacity Calculation Regions • Common Grid Model Programme	*Kilian Kröger* (ENTSO-E Reporting on Market Integration WG Convenor) *Derek Lawler* (CGM Programme Manager)
16:10 – Summary, Statements of ACER/NRAs and Q&A	Moderation by *Constanza Troiano* (ENTSO-E Secretariat)

Housekeeping Rules and Q&A

- Please note, that the webinar will be recorded
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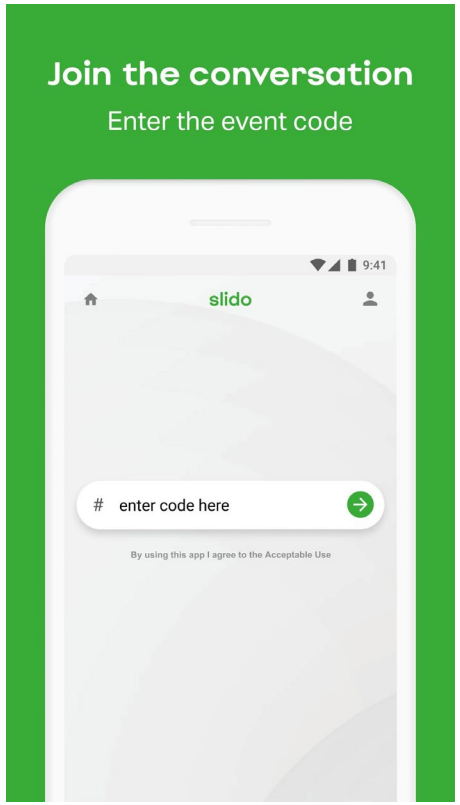

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Introduction

Why to harmonise and integrate electricity markets in Europe?

Market integration is the process of progressively harmonising the rules of markets. In a fully integrated Electricity Market, electricity can flow freely in response to price signals through Europe. This will bring **major economic benefits** to the society while **being one of several enabler for the implementation of the European Green Deal**.

Economic Efficiency

- Reduce electricity prices by increasing competition
- Reducing the need for back-up generation

Security

- Increasing market liquidity
- Increasing system security and resilience

Sustainability

- Integrate intermittent renewable energy sources and reducing CO2 emissions
- Increasing Europe's independence from imports of fossil energy fuels

The network codes pave the way for an integrated electricity market. TSOs and their partners (NEMOs, NRAs, ACER etc.) are working intensively on the implementation of these regulations for a more harmonised, integrated and efficient single European market for electricity.

How to harmonise and integrate electricity markets in Europe?

Long-term markets	
FCA Regulation	Sets out rules for calculation and allocation of **Long-Term Transmission Rights (LTTRs)**

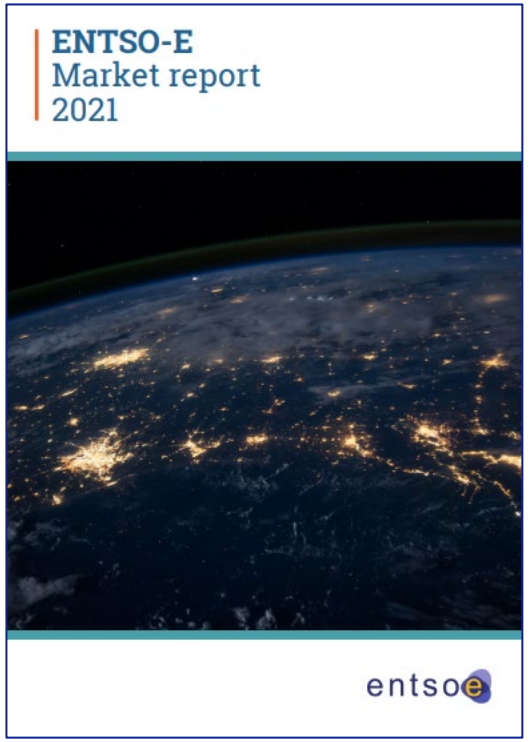
Short-term markets	
CACM Regulation	Sets out rules for implementing a single **Day-Ahead (DA) and Intraday (ID)** electricity market in Europe

Real time markets	
EB Regulation	Sets out rules for the procurement of **balancing capacity** and for the activation of **balancing energy**

ENTSO-E monitors the implementation of these projects by the present reports

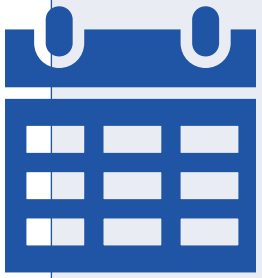
- The following presentation provides only **an overview** of the extensive annual ENTSO-E Market Report 2021 as well as the ENTSO-E Capacitiy Calculation and Allocation Report 2021
- To see the full content, browse https://www.entsoe.eu/network_codes/monitoring/

Market Report 2021



Background & Overview – Yearly Market Report is the ‘flagship’ of ENTSO-E’s market monitoring activities covering all timeframes

ENTSO-E has **42 member TSOs from 35 countries**



ENTSO-E´s Market Report 2021 covers the period from **July 2020 to May 2021**

Every year, **ENTSO-E monitors the progress of the integration of European electricity markets** in accordance to:

- Forward capacity allocation (**FCA**) regulation[1]
- Capacity allocation and congestion management (**CACM**) regulation[2]
- Electricity balancing (**EB**) regulation[3]

Topics covered:

1. How to **improve** the European electricity market
2. Implementation progress across **all time frames**
3. Overview of the **long-term** electricity trading and transmission capacities processes
4. Current status of the single European **day-ahead and intraday** coupling process
5. Harmonisation and integration of European **balancing** markets

[1] Commission Regulation (EU) 2016/1719 of 26 September 2016
[2] Commission Regulation (EU) 2015/1222 of 24 July 2015
[3] Commission Regulation (EU) 2017/2195 of 23 November 2017

FCA – Long-Term Markets

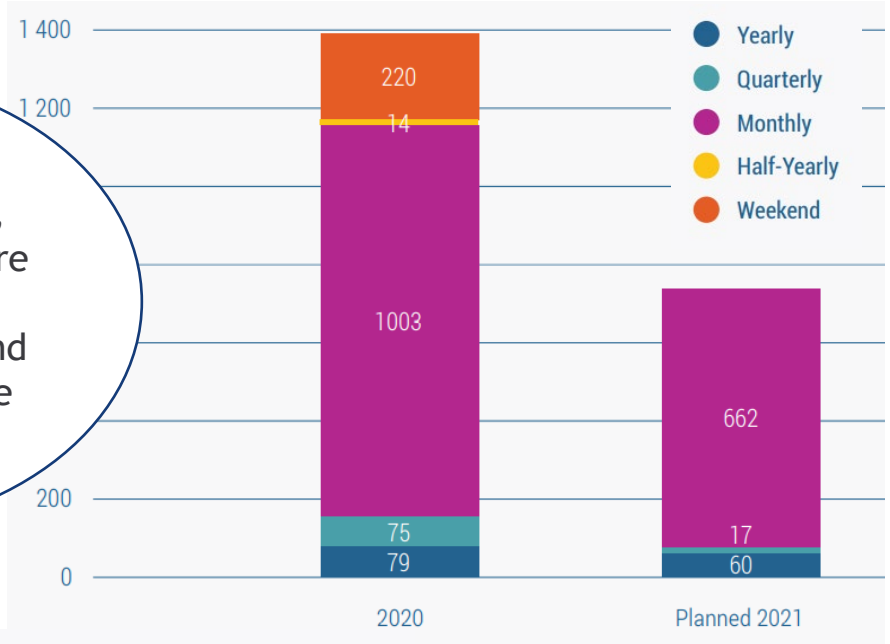
Long-term markets – JAO acts as a cross-timeframe service provider

The **Joint Allocation Office** (JAO) acts as the single allocation platform (SAP) operator for FCA

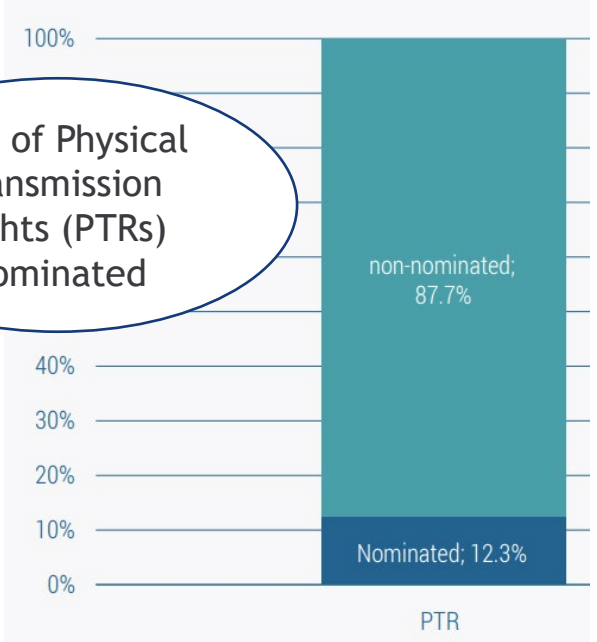
- In operation as of 1 November 2018
- It auctions cross-border transmission capacity rights
- As of 2021 it covers 63 bidding zone directional borders and has 300 registered market participants
- More than 2.996 auctions have taken place since SAP operations began

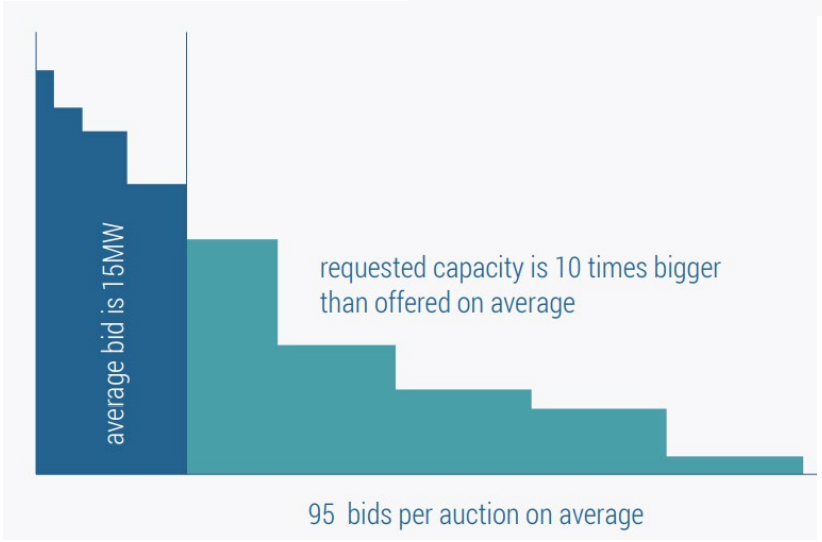
Long-term markets: Key figures illustrate market liquidity – Gradual shift from physical (PTRs) to financial (FTRs) transmission rights observed

In 2021, more than 1,391 auctions with LTTRs. Due to Brexit, around 739 auctions are anticipated for 2021 because half-yearly and weekend products are no longer offered at any EU border.

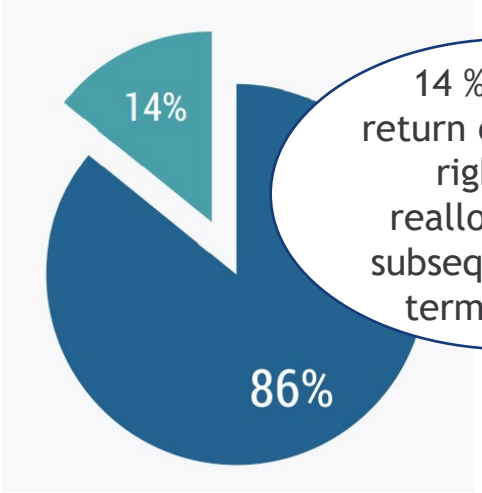


12 % of Physical Transmission Rights (PTRs) nominated





14 % rate of return of capacity rights for reallocation at subsequent long-term auction



Long-term markets – Services and Operations of the Single Allocation Platform (SAP) have been improved during the reporting period

Information technology – Public Application Programming Interface (API)

- Module for all stakeholders interested in integrating JAO's auction data into their own applications
- Real-time data on auction specifications, offered capacity, anonymised bids, results, curtailment etc.

Legal compliance – Know-Your-Customer and Anti-Money-Laundering

- Significant development and implementation of additional checks
- The basis for requesting the additional information is being integrated into the HAR (from 2022)

Operations – Flow-Based, FTR options, 15-minute products

- Implementation of the flow-based allocation of LTTRs soon due to Core and Nordic CCR
- Expected shift from PTR to mostly FTR options for the Core CCR bidding zone borders
- Future IT tools and procedures for adaptation to the 15-min day-ahead market products

FCA & CACM – Updates of TSOs' projects

Updates on further FCA Regulation requirements – Flow-Based allocation of long-term transmission rights in the focus

Harmonised Allocation Rules (HAR) methodology (Art. 51, 52)	• HAR to be periodically reviewed by TSOs and SAP (see HAR Art. 68(5)) • ENTSO-E is reviewing the HAR methodology, submission on July 2021 • ACER's approval is expected by 1 December 2021
Cost of ensuring firmness and remuneration (FRC) of LTTRs (Art. 61)	• FRC sets out the rules for sharing costs of curtailment and remuneration of long-term capacity between TSOs • In April 2020, TSOs submitted FRC proposal to ACER • In October 2020, ACER issued a decision while one TSO appealed against this decision • April 2021 the Board of Regulators adopted a decision, now remitted to ACER
Long-term flow-based allocation assessment (Art. 49, 51, 57, 61)	• ACER has requested ENTSO-E to start working on updating the FCA methodologies to enable the long-term flow-based allocation
Block bids	• Market participants indicated in the MESC of June 2020 their interest in individual hedging products, so-called 'block bids' • In Q1 2021, TSOs and NRAs launched a public consultation on block bids. Since no clear preference could be observed, TSOs will further assess future solutions

Updates on TSOs projects according to CACM – Redesign of CCRs; harmonization of CCMs and redispatching processes

Determination of the CCRs (Art. 15)	• Based on a request of ACER, all TSOs submitted – after running a public consultation – an update of the existing CCR proposal to ACER for approval on 9 November 2020. Adoption by ACER on 7 May 2021 • Due to the Brexit, the bidding zone borders of the Channel and Ireland United Kingdom CCR are deleted
CCR assessment report (ACER Decision No. 04/2019)	• TSOs are mandated to analyse the optimal determination of the Hansa and Channel CCRs • An all-TSOs CCR assessment report was submitted to ACER in October 2020
Harmonisation of the CCMs (Art. 21(4))	• The ENTSO-E assessment concluded, that the conditions to harmonize the CCMs of CCRs are not fulfilled yet • ACER agreed to the ENTSO-E assessment and encouraged TSOs to propose plans for CCM harmonisation • A harmonisation assessment will be prepared by 2025 and included in the ENTSO-E CC&A report 2025
Harmonisation of redispatchting and countertrading cost-sharing (Art. 74(7))	• ENTSO-E project established to harmonise the regional RDCT cost-sharing methodologies • The methodology for the Italy North CCR may not receive final approval unit the second half of 2021
Fallback procedure (Art. 44)	• Following a common assessment of TSOs and NEMOS, it was decided to move the time for decoupling by 10 min and to allocate the time to the SDAC algorithm. This has an impact on the CCRs' fallback procedures • Core, SWE, Italy North and GRIT have amended their fallback procedures
Congestion Income Distribution (CID) (Art. 73)	• Core CCR requested to amend the CID methodology to incorporate flow-based approach and LTTR remuneration • Submission in June 2021 and approval before Core CCR CCM day-ahead go-live in February 2022

Updates on NEMOs' and joint NEMO-TSOs' projects according to CACM

Joint NEMO-TSO deliverables	**Day-to-day management of the SDAC and SIDC** (Art. 10)	• SIDC and SDAC parties have set up a timeline to implement the Market Coupling Steering Committee, a high-level decision body for both SDAC and SIDC. go-live expected for Q1/2022
	Scheduled exchanges methodology (SEC) (Art. 43(4) and 56(4))	• In accordance with CACM, all TSOs reviewed the scheduled exchanges methodologies • No need to amend the methodologies in 2021. The only change concerns the annex, where cost coefficients deriving from the go-live of the Interim Coupling Project are adjusted
	CACM annual report (Annex I to the ACER Decision 04/2020)	• The 2019 CACM annual report, created jointly by TSOs and NEMOs was published on 30 September 2020 and can be found on the NEMO Committee website
	SDAC and SIDC costs (Art. 80)	• 2019 CACM cost report was submitted on 30 July 2020
NEMO deliverables	**Products of the single day-ahead coupling** (Art. 40)	• ACER Decision No. 37/2020 of 22 December 2020, determined which products can be taken into account in SDAC • Require each NEMO to publish in its market rules the list of SDAC products that are available in its trading hub
	Multiple NEMO arrangements (MNA) (Art. 45, 57)	• On 9 February 2021, the Polish MNA for the day-ahead market went live • The Danish Hansa interconnectors MNA went live on 24 June 2021

CACM – Day-Ahead Markets

Short-term markets – 27 countries part of Single Day-Ahead Coupling

Single day-ahead coupling (SDAC)

- SDAC uses the day-ahead market coupling operator function with the **EUPHEMIA** algorithm. It calculates electricity prices across Europe and implicitly allocates auction-based cross-border capacity
- **27 countries with 30 TSOs and 17 NEMOs** currently involving 61 bidding zones.
- **On 17 June 2021, the MRC and the 4M MRC have been coupled** via the borders PL-DE, PL-CZ, PL-SK, CZ-DE, CZ-AT and HU-AT → 98,6 % of EU coupled

MRC
- Integrates 23 countries, representing more than 95% of European electricity consumption and circa 1 500 TWh/ year, in one market solution.
- Since 2014, full market couplings have been avoided (only 3 partial decouplings)

4M MC
- Coupling Czech Republic, Hungary, Romania and Slovakia

- **SDAC will be further extended** to the borders Hungary-Croatia (02/2022), Bulgaria-Romania (Q4 2021) and Ireland-France (expected for 2025)

Evolution of Short-term markets: Several extensions of the SDAC went live – Merge of MRC and 4M MC is a major milestone

Nov. 2020	8 Dec. 2020	15 Dec. 2020	17 Feb. 2021	11 May 2021	17 June 2021
• Implementation of Evolved Flow-based with EUPHEMIA due to ALEGrO (BE-DE) go-live	• NordLink cable (NO-DE) commercialized	• Extension of MRC to Greece	• Losses functionality on the Skagerrak cable	• Extension of MRC to Bulgaria	• Merge of MRC and 4M MC

Further Evolution and Changes during 2020/21

- ❑ In 2020 and 2021 the functionality of handling **multiple NEMOs (MNA) has been further expanded**:
  - Poland (SwePol cable and LitPol Link)
  - NorNed (Hansa)
  - Nordic
  - DK Hansa+ interconnectors
- ❑ **UK borders have been removed** as of 1 Jan 2021

Foreseen future improvements of the algorithm

- ❑ Change of operational timing - 10 additional minutes for the day-ahead algorithm calculation
- ❑ Implementation of a 15-minute imbalance settlement period in all scheduling areas
- ❑ R&D programme to improve the performance of the algorithm
- ❑ Extension of Flow-based capacity allocation and integration of Evolved Flow-based into EUPHEMIA

CACM – Intraday Markets

Short-term markets – 22 countries part of Single Intraday Coupling

Single Intraday Coupling (SIDC)

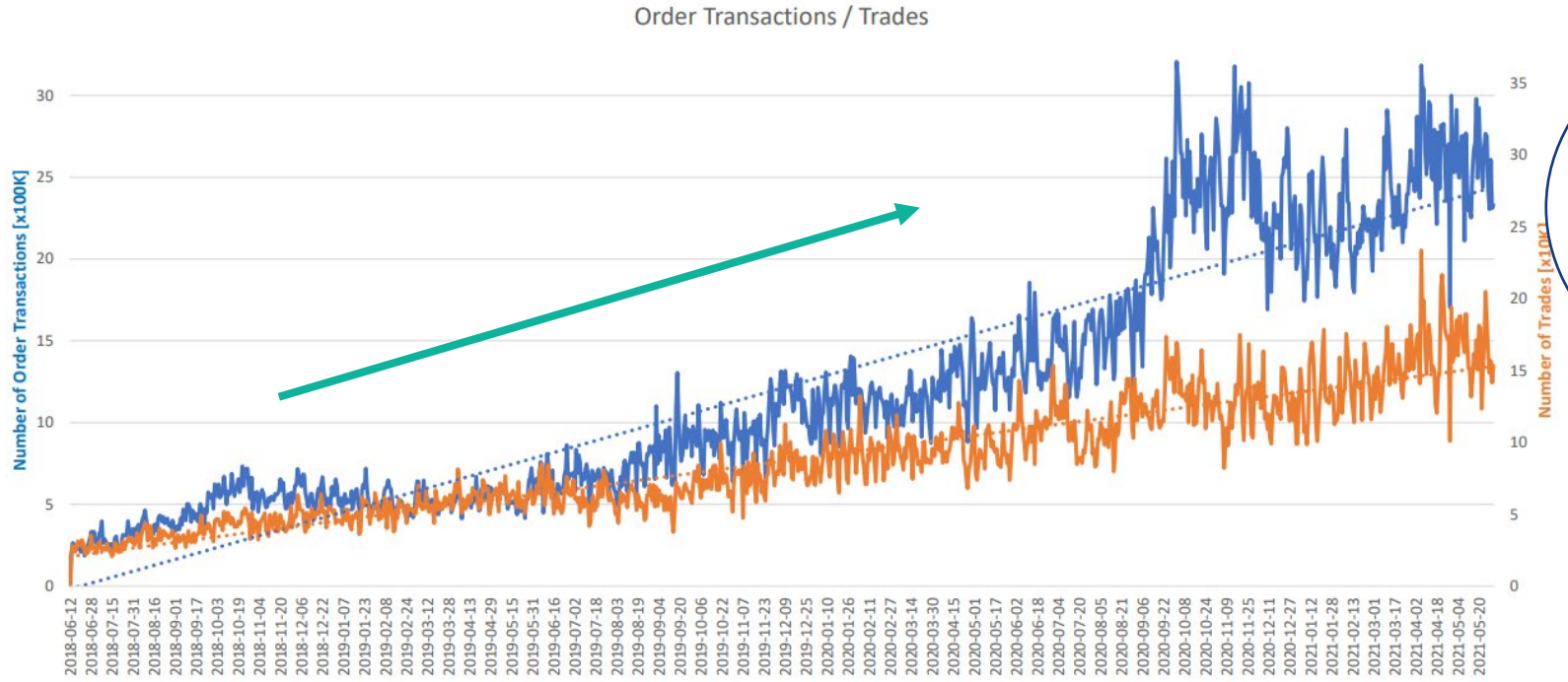
SIDC enables **continuous cross-border trading across Europe**. It is based on a common IT system with a shared order book, a single capacity management module and a shipping module

It covers **27 countries**, 22 of which are operational with at least one border

30 TSOs and 15 NEMOs cooperate under the Intraday Operational Agreement aimed at governing the SIDC

Almost **80 million trades** have been executed within SIDC since its inception in June 2018 while the downtime summed up to only 70 hours and 48 minutes

Short-term markets: SIDC continues its strong and steady growth – Several updates during the reporting period

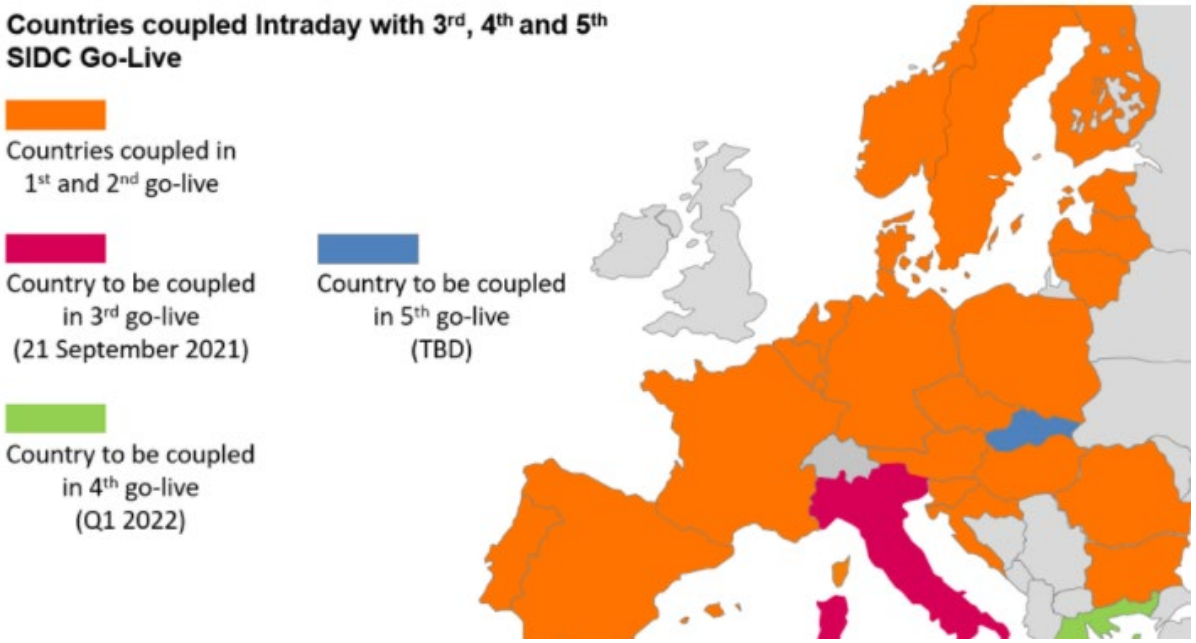


Steady growth of number of order transactions and trades since SIDC foundation in 2018

SIDC IT solution is being steadily improved. Updates during the reporting period:

- **Release 3.0** introduced three major functionalities necessary for the secure operation of the intraday market as well as enhanced submission of offered capacity data to the ENTSO-E Transparency Platform
- **Release 3.1** introduced a CMM graphical user interface refresh function, additional reporting features related to introduction of new indicators and alignment with REMIT requirements

Short-term markets –SIDC continues to expand and innovate



Further geographical expansion foreseen for 2021/22

- ❑ 21 September 2021: 3rd go-live wave to integrate AT–IT, IT–FR, IT–SI and internal IT borders into SIDC
- ❑ Q1/2022: 4th go-live wave to integrate GR–IT and GR–BG
- ❑ Q4/2022: 5th go-live wave to integrate CZ-SK, PL-SK and SK-HU

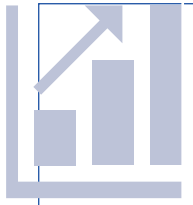
Major innovation (4.0) for SIDC IT Solution coming up

- ❑ Further extension of products (15 min)
- ❑ Cross-product matching feature (e.g. matching a 60-minute product with several 15-minute products)
- ❑ Performance improvements to cope with growing ID market and smaller granularity of products
- ❑ Flow-based allocation in continuous trading European intraday auctions (IDAs) to enable capacity pricing in ID
- ❑ Implicit losses on HVDC (prevent electricity from flowing if the price difference is lower than the losses)
- ❑ Offered capacity published at ENTSO-E Transparency Platform during cross-border trading halts

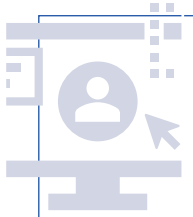
EBGL – Balancing Markets

Balancing markets – 4 balancing platforms to increase security of supply and economic efficiency of balancing activities in Europe

TSOs are implementing **European platforms** for the exchange of balancing energy: **TERRE, MARI, PICASSO, IGCC**



Ensure that each country's balancing demand is met through activating the most efficient bids in Europe, while also considering operational security constraints



Application of a centralized Capacity Management Module (CCM) to optimize allocation of cross-zonal capacity for balancing across all platforms

Increase security of supply in Europe

Besides these platforms, **TSOs operate already several cooperations launched on TSOs' initiative** such as

- ❑ Frequency containment reserves (FCR) cooperation to launched in 2015, currently involving 11 TSOs
- ❑ Frequency restoration reserves (FRR) procurement cooperations by Nordic TSOs or between Germany and Austria

Balancing markets: TERRE and IGCC already operational since 2020 – PICASSO and MARI go-live soon in early 2022

RR platform	IN platform	aFRR platform	mFRR platform
TERRE - Trans-European Replacement Reserves Exchange	**IGCC** - International Grid Control Cooperation	**PICASSO** - Platform for the International Coordination of Automated Frequency Restoration and Stable System Operation	**MARI** - Manually Activated Reserves Initiative
Article 19 EB regulation	Article 22 EB regulation	Article 21 EB regulation	Article 20 EB regulation
RR cooperation includes 11 countries with 11 TSOs	24 countries with 27 TSOs	27 countries with 30 TSOs	31 countries with 34 TSOs

Balancing cooperations lead to significant savings for the society

RR platform 'TERRE'

- ✓ 6 TSOs connected during first year of operation
- ✓ Robust operation with 99.9 % system availability
- ✓ 1.6 million bids were submitted, totaling 88 million MWh
- ✓ On average 315 MWh hourly activations

FCR cooperation

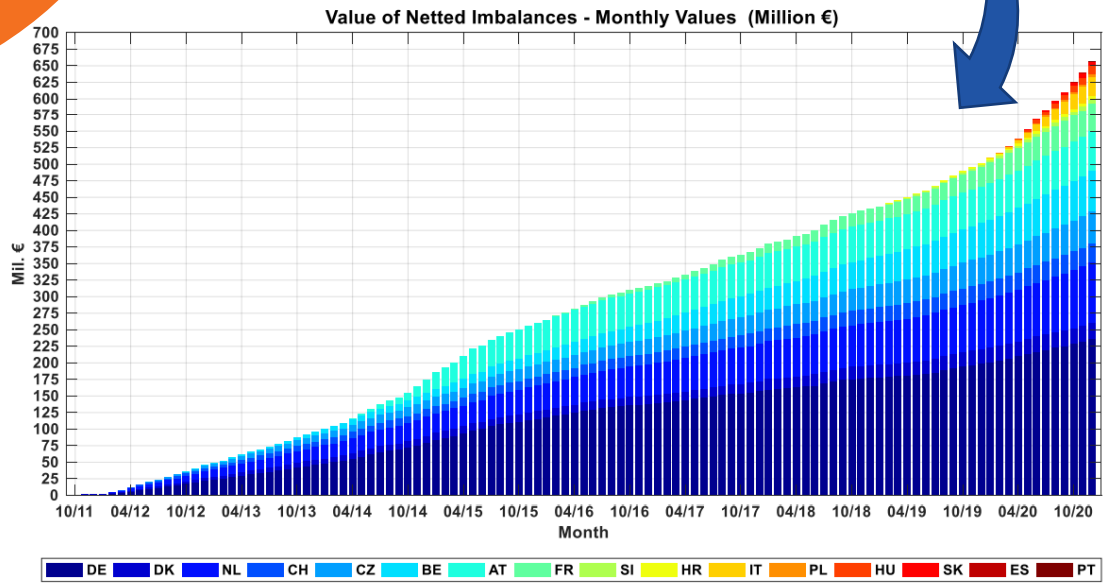
- ✓ Launched in 2015 on TSOs' initiative
- ✓ Currently involves 11 TSOs
- ✓ Procurement of 1400 MW of FCR (approx. 50% of the total 3000 MW FCR needed for continental Europe synchronous area)

IN platform 'IGCC'

- ✓ 19 TSOs already connected
- ✓ Restulted in total savings of approx. 155 million Euro in 2020

DE-AT aFRR cooperation

- ✓ Savings in Austria of up to 3 million EUR (approximately -10 % of total costs for aFRR)
- ✓ Savings for Germany up to 15 million EUR (approximately -8.4 % of total costs for aFRR).



Further data: Browse ENTSO-E Market Report 2021 for extensive data and analyses of balancing platforms, cooperations and markets

Updates on further TSO projects according to EBGL – ACER adopted various decisions on balancing methodologies during 2020 and 2021

Implementation frameworks (IF) for mFFRRIF and aFRRIF respectively IN platform	Art. 20, 21, 22	• The IF includes the high-level design and the functions to operate the balancing platforms • Decision adopted by ACER in January 2020 respectively June 2020
Pricing methodology	Art. 30	• Establishes rules for the pricing of balancing energy resulting from the activation of the frequency restoration and replacement reserve processes • Decision adopted by ACER in January 2020
Activation purposes methodology	Art. 29	• Describes purposes for the activation of frequency restoration and replacement reserves • Decision adopted by ACER in July 2020
Settlement methodology	Art. 50	• Provides common settlement rules for TSO participating in the European balancing platforms • Decision adopted by ACER in July 2020
Standard product for balancing capacity methdology	Art. 25	• Provides a list of standard products for frequency restoration and replacement reserves • Decision adopted by ACER in June 2020
Methodologies for cross-zonal capacity allocation for the exchange of balancing capacity or sharing of reserves	Art. 40-42	• The EB regulation foresees three processes to allocate cross-zonal capacity for balancing: 1. Co-optimised allocation process (European methodology): ACER decision in June 2020 2. Market-based allocation process (per CCR): ACER decision for Nordics in August 2020 3. Economic efficiency (per CCR)
Imbalance settlement harmonisation (ISH) methodology	Art. 52	• Specifies and harmonises the imbalance calculation with one single position for each imbalance settlement period and for each BRP • Decision adopted by ACER in July 2020

Further topics of the ENTSO-E Market Report 2021

Further topics: Suggestions for improving the European Electricity Market – Robust CEP70% performance of TSOs in 2020

1st time TSOs' suggestions for improving European electricity markets are included	• **The importance of a reliable and future-oriented regulatory framework for continuous innovation** • **The crucial role of the Joint Allocation Office** as a cross-time frame service provider for TSOs • Further analysis and **recommendations for the Electricity Balancing Guideline**
TSOs analyzed their performance in regard to the CEP's 70% minimum cross-zonal trading provisions	• Overall, **robust performance of TSOs in 2020. TSOs assume a very high degree of compliance** • During 2020 most TSOs applied Derogations and/or Action Plans
Other topics	• Governance, operations and expenditures of SAP, SIDC, SDAC • Impact of Brexit on projects and electricity markets

Capacity Calculation and Allocation Report 2021

Overview – CCRs harmonise cross-zonal capacity calculation

- TSOs are implementing coordinated capacity calculation processes in **Capacity Calculation Regions (CCR)** aiming to:

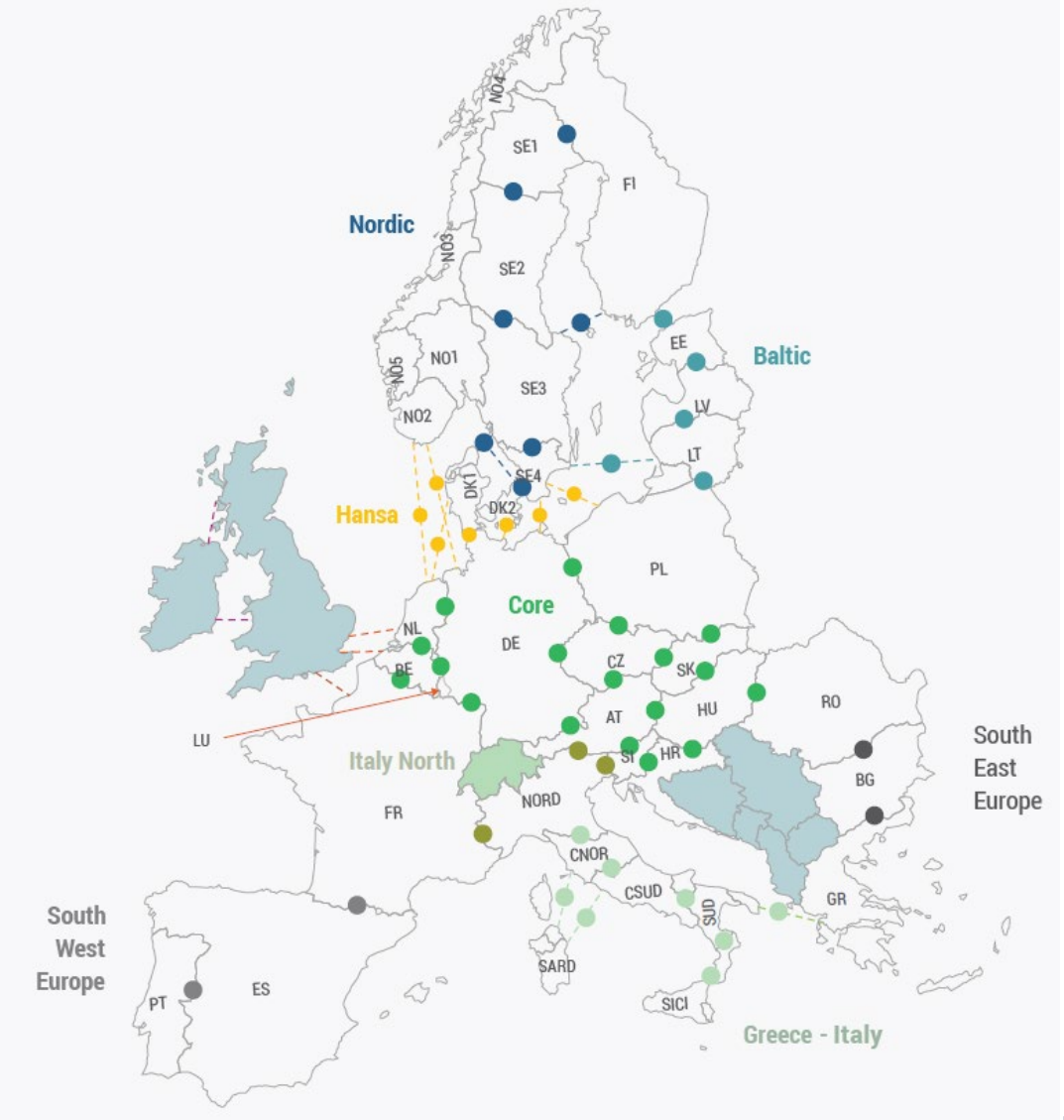
Harmonise the operation of cross-border markets

Increase competitiveness

Integrate renewable generation

- ENTSO-E Capacity Calculation and Allocation Report 2021 **monitors the implementation of CCRs** according to FCA and CACM regulations from **Q2 2019 to Q4 2020**

- In 2021, **statistical and quality indicators** have been developed jointly by ACER and ENTSO-E and will be presented for CCRs which are already operational



Evolution of the CCRs

Status of Capacity Calculation Methodologies according to CACM: Roadmap for implementation of DA and ID CCMs – Core DA go-live ahead

CCR	Approach	Coordinated capacity calculator(s)	Implementation date	
			Day-Ahead (DA)	Intraday (ID)
Nordic	Flow-based	Nordic Regional Coordination Centre	Exp. Q3 2022	Exp. Q3 2022
Hansa	Coordinated NTC	Nordic Regional Coordination Centre	Q2 2O22 to Q2 2024	Q2 2O22 to Q2 2024
Core	Flow-based	Coreso & TSCNET Services	Q1 2022	Q1 2023 to Q1 2024
Italy North	Coordinated NTC	Coreso & TSCNET Services	Q1 2022	Q1 2022
Greece-Italy	Coordinated NTC	Southeast Electricity Network Coordination Centre (SEleNe)	Q3 2021	Q4 2021 (10:00 D) Q3 2023 (22:00 D-1)
South-West Europe	Coordinated NTC	Coreso	Implemented Q1 2020	Q4 2021
Baltic	Coordinated NTC	Baltic Regional Coordination Centre	TBD	TBD
South-East Europe	Coordinated NTC	SCC/Southeast Electricity Network Coordination Centre (SEleNe)	Exp. Q3 2021	Exp. Q3 2021

Full implementation of short-term capacity calculation methodologies in all CCRs according to CACM expected by early 2024, while most DA and ID capacity calculation methodologies will already go-live during 2021/22.

Status FCA – Most long-term CCMs are approved and subject to implementation – Italy North and SEE expected for 2021

CCR	Approach	Status of the proposal	Implementation status of products		
			Yearly	Monthly	Quarterly
Nordic	Flow-based	Approved in Oct. 2019	Ongoing	Ongoing	N/A
Hansa	Coordinated NTC	1st amendment version under NRA approval. Decision by Oct. 2021	TBD	TBD	N/A
Core	Flow-based	Referred to ACER – decision in Nov. 2021	TBD	TBD	N/A
Italy North	Coordinated NTC	Approved in December 2020	Exp. Q4 2021	Exp. Q4 2021	N/A
Greece-Italy	Coordinated NTC	Approved in Jan. 2020	Q1 2022	Q1 2022	N/A
South-West Europe	Coordinated NTC	Approved in March 2020	Ongoing	Ongoing	Ongoing
Baltic	Coordinated NTC	Rejected by ACER in Nov. 2020	TBD	TBD	N/A
South-East Europe	Coordinated NTC	Approved in May 2020	Exp. Q3 2021	Exp. Q3 2021	N/A

- **In all CCRs long-term capacity calculation methodologies (CCMs) according to FCA submitted by TSOs**
- **5 out of 8 long-term CCMs already approved and implementation ongoing**

Performance Indicators for CCRs

Performance Indicators – ACER and ENTSO-E developed jointly statistical and quality indicators to measure the performance of CCRs

Statistical and quality indicators developed jointly by ACER and ENTSO-E. Indicators are provided in the reports for CCMs respectively CCRs which are already operational.

Reliability margins (RM)

- Assesses the average TRM (for cNTC) respectively FRM (for FB)

Available and allocated CZC

- Assess the level of available and allocated cross-zonal capacity across all time frames

Information used for capacity calculation

- Assess the quality of the input data for IGMs and the CGM
- Monitors the quality of the information used for the capacity calculation process

Longer term efficiency of single day-ahead and intraday coupling

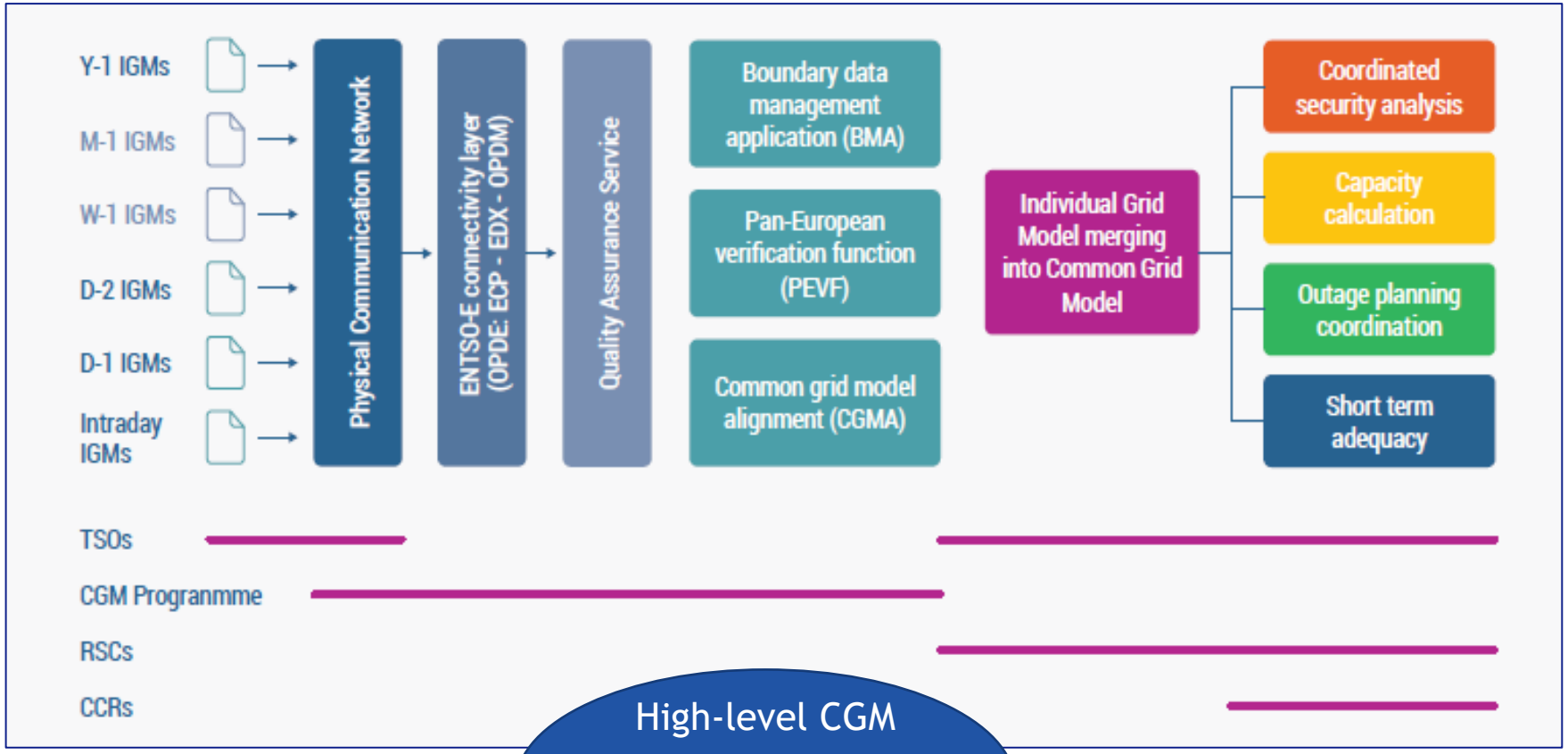
- Assess the efficiency of the current capacity calculation and allocation framework

➢ **The full set of indicators is provided for the SWE region in the CC&A report 2021. Other CCRs will follow in the next versions of the CC&A report as soon as they are operational.**

Common Grid Model Programme

Common Grid Model (CGM) will be a major milestone for the integrated electricity market by enhancing data interoperability and scalability

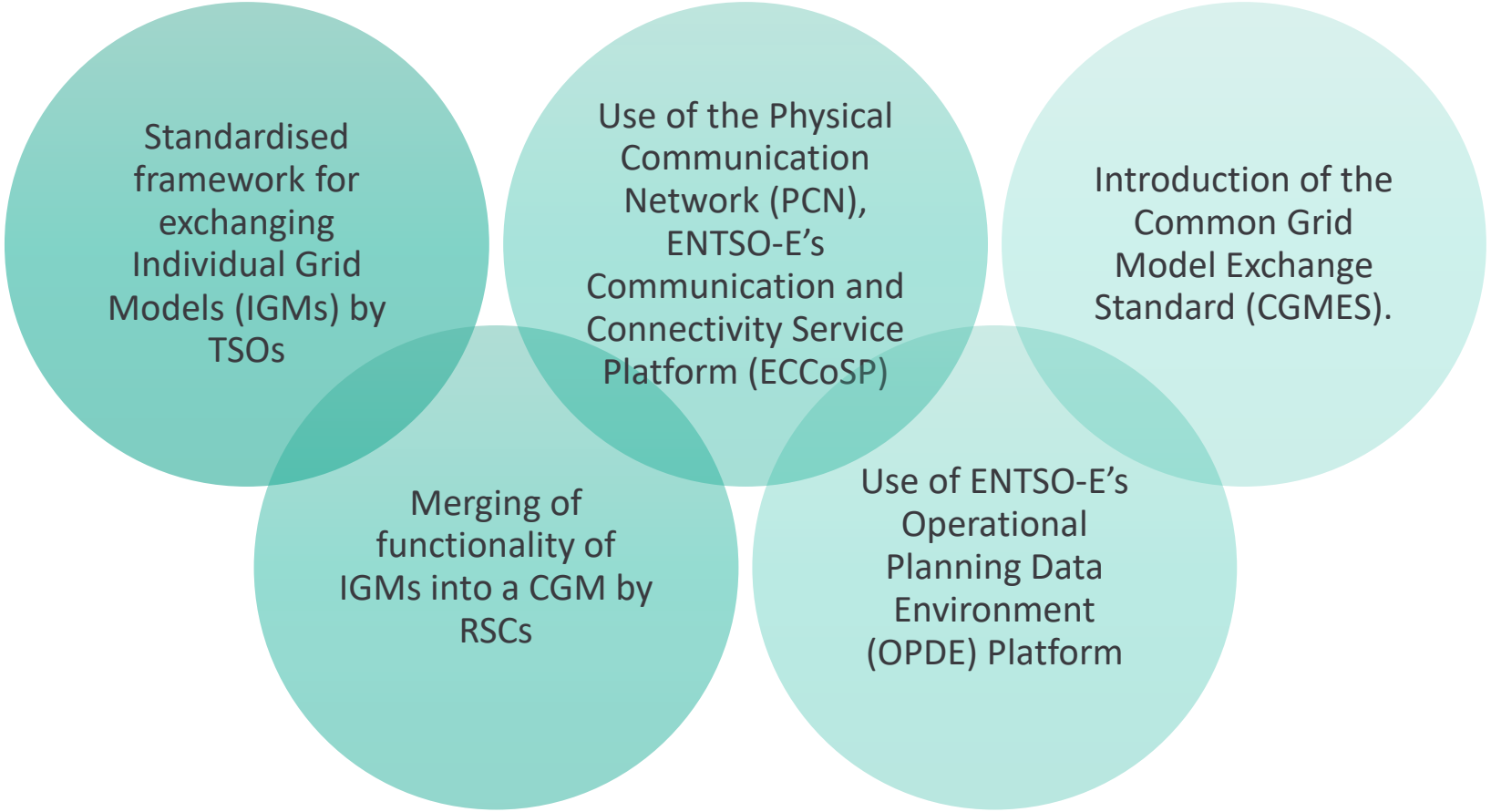
- CGM performs tasks related to cross-zonal capacity (CZC) calculation using **standardised data with a common information technology framework**
- Complex multi-stakeholder and multi-service provider programme which **facilitates the pan-European exchange of network model data** between TSOs and RCCs
- It **enhances scalability and data interoperability** of all stakeholders which will **eliminate inefficiencies** and **add value** to the European CZC calculation processes



High-level CGM programme scope and dependent services

CGM Minimum Viable Solution go-live in 2021 will mark the start for the full implementation of the CGM

As a first step, the minimum viable solution of the CGM is planned to go live by the end of 2021, incorporating the following functions:



Wrap-up

ENTSO-E Market Report 2021

ENTSOE Capacity Calculation and Allocation Report 2021

Take-Aways: Market integration is progressing steadily – Challenging road ahead to realize the single market for electricity

- Market Integration entails **major benefits for the society** in terms of economic efficiency, security and sustainability. TSOs, together with their partners along the value chain (e.g. NEMOs, NRAs and ACER), have achieved **major milestones on the pathway towards the full implementation of a single European market for electricity**
- **Market Report**: During the last year, market coupling projects across all time-frames made significant progress
  - **Long-term timeframe**: User interface, legal compliance and operations of SAP services have been improved
  - **Day-Ahead**: Multiple extensions and improvements of SDAC. Merge of MRC and 4M MRC
  - **Intraday**: SIDC proves to be a growth story – Further extensions and go-live waves ahead
  - **Balancing**: 4 European balancing platforms. TERRE and IGCC are operational and deliver already significant savings; PICASSO and MARI will follow at the beginning of 2022
  - **CEP70%**: TSOs' analysis shows robust performance and high degree of compliance in 2020
- **Capacity Calculation and Allocation Report**: CCRs are evolving across all timeframes
  - Roadmap for implementation of DA and ID CCMs fixed – CORE DA CCM go-live in Q1/2022
  - Minimum viable solution of the **CGM** is planned to go live by the end of 2021

Any questions?

Remember to go to **www.slido.com** and introduce the event code **#449433**

Any questions?

If you have any remaining question, please send it to market@entsoe.eu

Thank you very much for your attention