24 SEPTEMBER 2025 | BRUSSELS

ALL NEMO COMMITTEE

Starts at 10:00

3RD ANNUAL CONFERENCE

24 SEPTEMBER 2025 | BRUSSELS

ALL NEMO COMMITTEE

WELCOME

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ALL NEMO COMMITTEE

INTRODUCTION

Yovka Ivanova
All NEMO Committee
Reporting and Communication Task Force Leader

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24 SEPTEMBER 2025 | BRUSSELS

ALL NEMO COMMITTEE

Questions under Q&A sessions in person, via chat or at secretariat@nemo-committee.eu

The event is being recorded

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24 SEPTEMBER 2025 | BRUSSELS

ALL NEMO COMMITTEE

WELCOME

Rafael GÓMEZ-ELVIRA GONZÁLEZ
Chairman of the All NEMO Committee

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24 SEPTEMBER 2025 | BRUSSELS

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Policy session

Moderators: Rodrigo Escobar Rodríguez, Directorate of Public Affairs and Marketing, OMIE

Davide Orifici, Director of Public & Regulatory Affairs and Communications, EPEX SPOT

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24 SEPTEMBER 2025 | BRUSSELS

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10:25 –11:30 **POLICY SESSION:** CACM REGULATION: EVOLUTION OR REVOLUTION

Speakers:
- **Tsvetelina Penkova,** ITRE Committee Vice chair, European Parliament
- **Kjell Barmsnes,** ENTSO-E Market Committee Vice Chair
- **Mathieu Fransen,** Team Leader Market Codes, ACER
- **Salvatore Lanza,** Italian Regulatory Authority ARERA
- **Tom Darell,** CEO of Nord Pool
- **Mátyás Vajta,** CEO of HUPX

Moderators:
- **Davide Orifici,** Director of Public & Regulatory Affairs and Communications of EPEX SPOT
- **Rodrigo Escobar Rodríguez,** Head of Unit, Directorate of Public Affairs and Marketing, OMIE

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Policy session

Q&A

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CACM Annual Report 2024- Key insights

Speakers: Chiara Vitelli and Christoforos Zoumas

All NEMO Committee Technical Task force co-leaders

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CACM Annual Report 2024

In coordination with entsoe

24/09/2025

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Scalability Report will be published separately starting from October 2025

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SDAC main features

DA auction

NEMO requirements

- MNA in Romania (BRM go-live 11/24)
- Block products (simple, linked, exclusive)
- PUN & merit orders
- Complex Orders and SCOs
- Aggregated MTUs orders (curves)

TSO requirements

- ATC and Flow based (PTDF constraints)
- Network constraints: Ramping, losses.

CACM requirements

- Adequate optimality
- Adequate scalability
- Adequate repeatability
- MNA

Systems release DA and IDAs

PMB 13.0 and Euphemia 11.3 implemented from 11th of September 2024

SIDC main features

CT trading

NEMO requirements

–MNA in Romania (BRM go- live 05/24)
–MTU: 15, 30, 60 mins without cross-matching
–Regular orders
–Linked orders
–Iceberg Orders
–User Defined Blocks

TSO requirements

–ATC (including possibility to set a global constraint
for set of cross-zonal interconnectors)
–Ramping constraints
–Explicit capacity requests

CACM requirements

–Adequate scalability
–MNA
–MTU: 15-60 mins

Systems release(s) XBID

–Deployment of XBID version 4.0, 16th of May 2024.
–Release R4.0.30 deployed on 5th of June 2024

SDAC main features

DA auction

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- ATC and Flow based (PTDF constraints)
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CACM requirements
- Adequate optimality
- Adequate scalability
- Adequate repeatability
- MNA
- MTU: 60 min

SIDC main features

IDAs

NEW

NEMO requirements
- Block Orders (simple, linked, exclusive)
- Merit Orders
- Aggregated MTUs orders (curves)

TSO requirements
- ATC
- Network constraints: Ramping

CACM requirements
- Adequate optimality
- Adequate scalability
- Adequate repeatability
- MNA
- MTU: 60 min, 30 min, 15 min
  - gradual introduction of 15 min products in 2024
  - Introduction of 15 min products in all SIDC BZs to be completed in 2025 together with SDAC big-bang approach (Greece)

CT trading

NEMO requirements
–BRM go- live 05/24
–MTU: 15, 30, 60 mins without cross-matching
–Regular orders
–Linked orders
–Iceberg Orders
–User Defined Blocks

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High Level market data

SDAC

1 840 TWh (+8%)

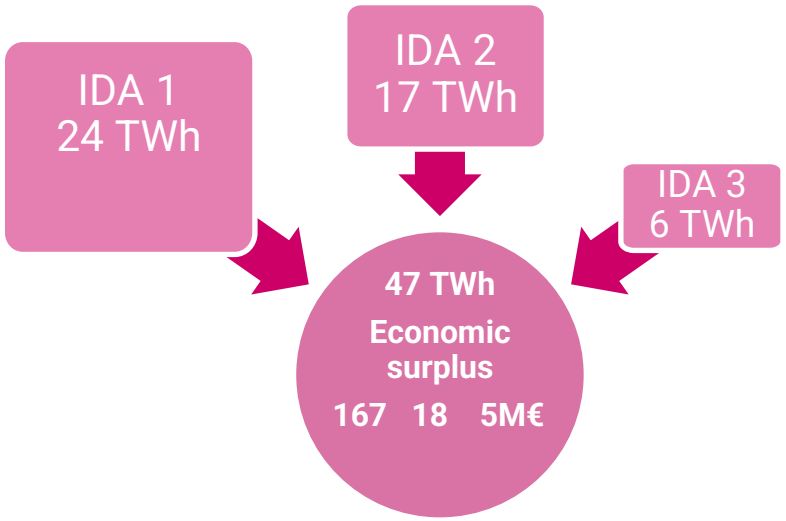
Economic surplus
11.8 B€ per session
(+7.8%)

SIDC – CT trading

207 TWh (+25%)

208 million trades

SIDC - IDAs



High Level market data

SDAC

1 840 TWh (+8%)

Prices

60-110€/MWh
(Nordics 20-50 €/MWh)

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207 TWh (+25%)

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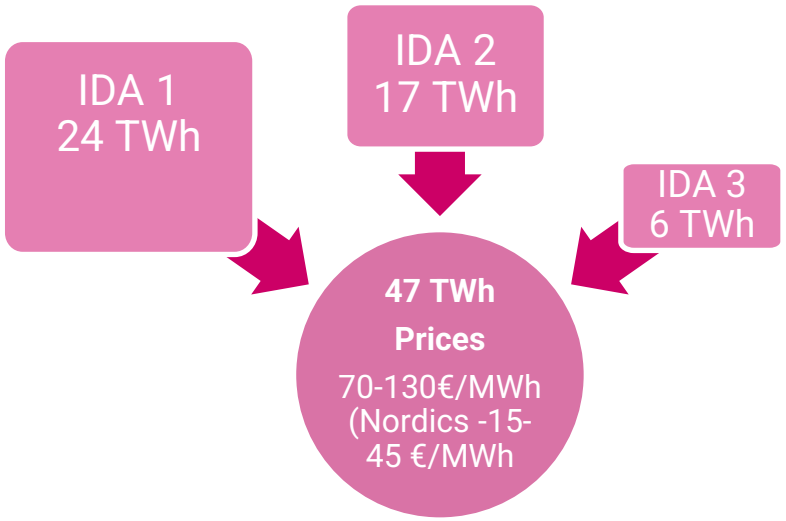
SIDC - IDAs



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Operations report

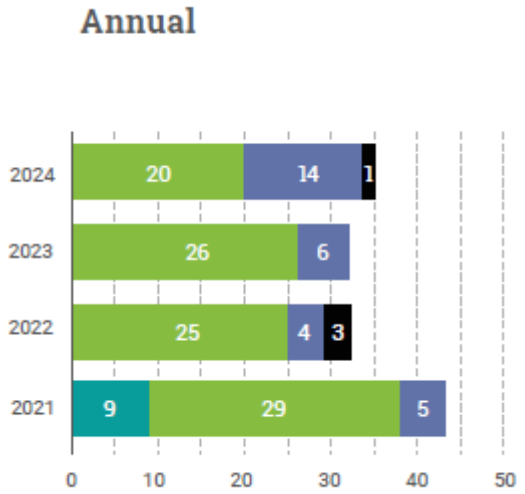
INCIDENTS

Severity 1
Incidents that led to decoupling

Severity 2
Incidents where message of risk of decoupling was sent

Severity 3
Incidents that were visible to market participants, but risk of partial decoupling message was not sent

Severity 4
Incidents that were not visible to market participants

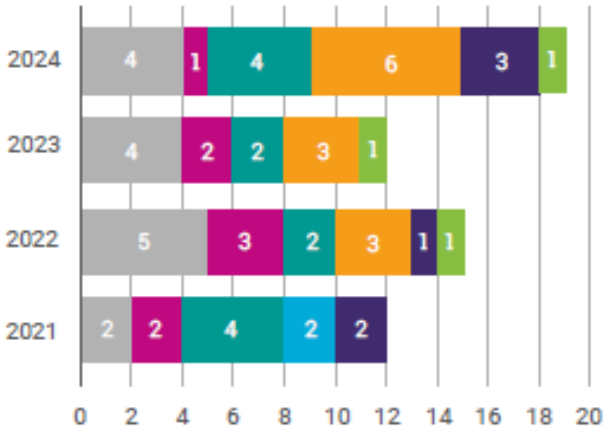


Other
Human error
Unusual process
Interface issue
System bug
Configuration
Non-MCO: local trading
Non-MCO: transmission of capacity
Non-MCO: Other

All the incidents fell in the category "Non-MCO", mainly related to technical issues belonging to NEMO/TSO Local Systems. Also the two partial decoupling incidents were related to issues in the Local NEMOs trading systems.

Operations report

REQUESTS FOR CHANGE (RfC)



Other

System Release

Network topology

Geographical extension

Products extension

MNA implementation

Flow based

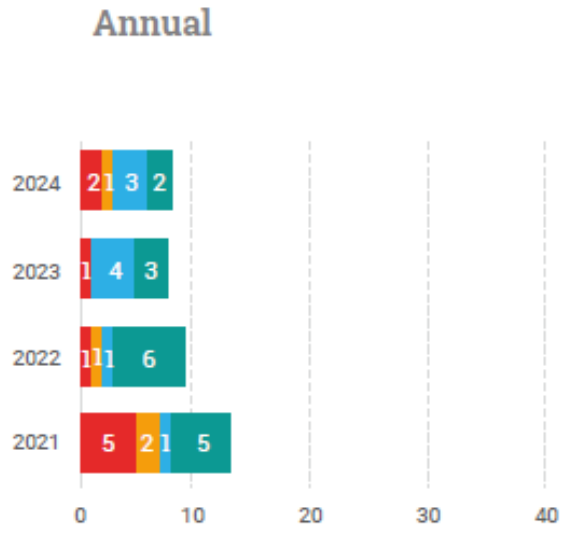
Among the many important RfCs:

- the MNA implementation in Romania,
- Nordic Flow Based implementation
- Several products extensions: Step-wise Curves in Italian BZs (following the removal of PUN Orders), Introduction of Curtailable Blocks in OTE Trading Hub, Introduction of a parent block of a linked family as part of an exclusive group in EPEX SPOT and EMCO Trading Hub(s)).
- One system release for PMB and EUPHEMIA

Operations report

INCIDENTS

SIDC CT-trading



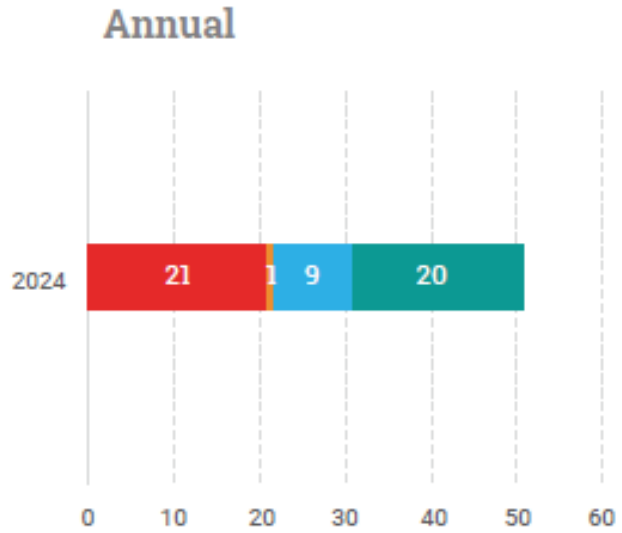
Severity 1
Incidents that lead to stopping ID trading

Severity 2
Incidents that lead to closing interconnector(s)/area(s)

Severity 3
Incidents that were visible to participants

Severity 4
Incidents that caused the breach of a critical deadline or any other major incident

SIDC IDAs



Severity 1
Decoupling/Cancellation

Severity 2
Delay in publication

Severity 3
Not visible to MPs

Severity 4
Not visible to MPs/planned maintenance

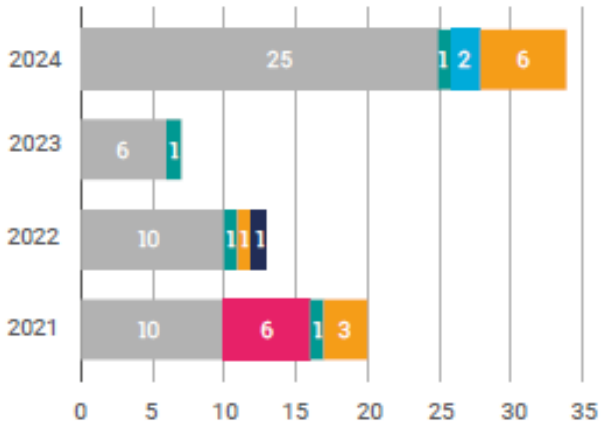
SIDC/CT : Majority of the incident Non-MCO related, 2 incidents of caused the halt of the market.

SIDC/IDAs: Despite IDA success rate was 97.7%, 4 incidents out of 50 were MCO related, two of them of severity 1.

Operations report

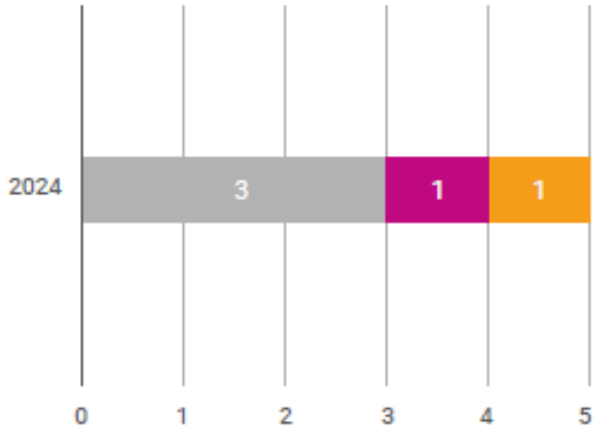
REQUESTS FOR CHANGE (RfC)

SIDC CT-trading



Other
System Release
Network topology
Geographical extension
Products extension
MNA implementation
Flow based

SIDC IDAs



Other
System Release
Network topology
Geographical extension
Products extension
MNA implementation
Flow based

SIDC/CT : Among the geographical extension, BRM activation in Romania, 3 Product Extension related to 15' resolution (2 of which relevant also for IDAs).

SIDC/IDAs: one product extension related to 15' and one system release.

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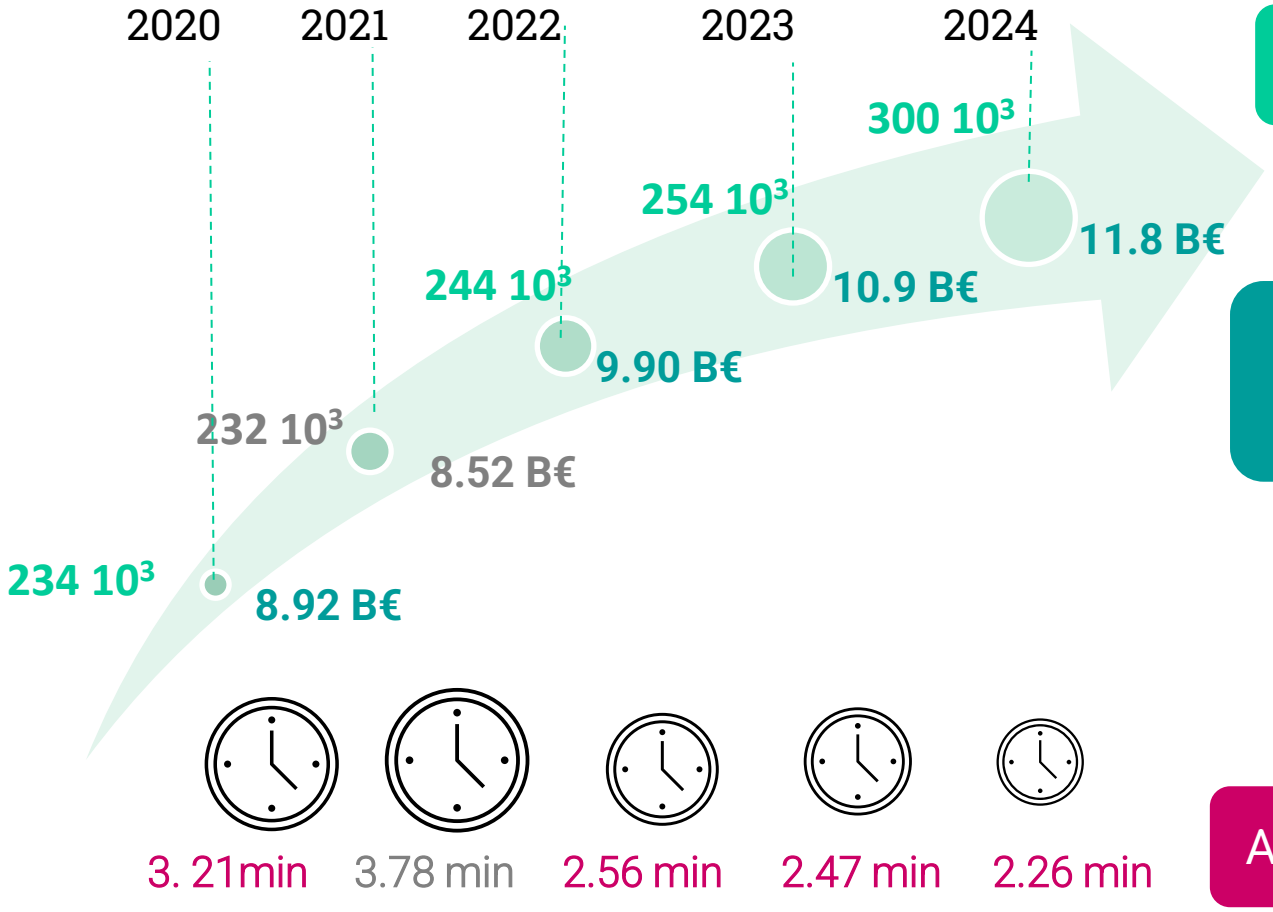
Performance monitoring report

During 2024 the performance of the SDAC has been better than previous years despite that the usage of products has increased in average.



Number of orders*

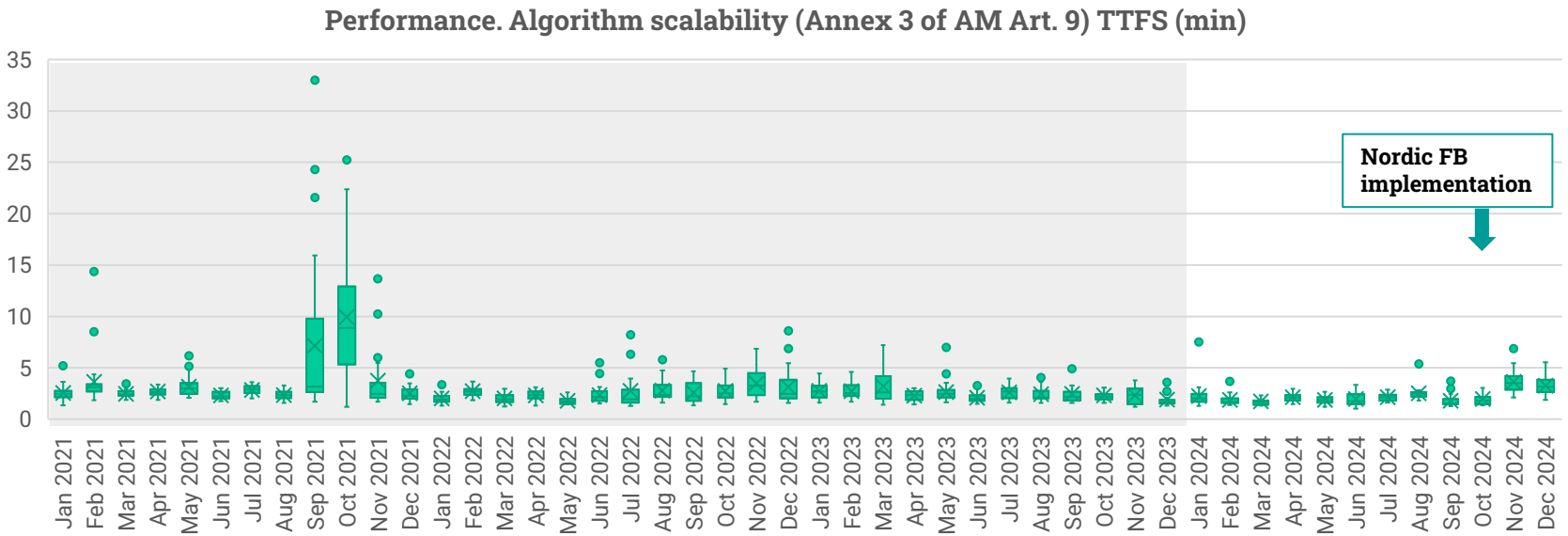
Economic surplus per session

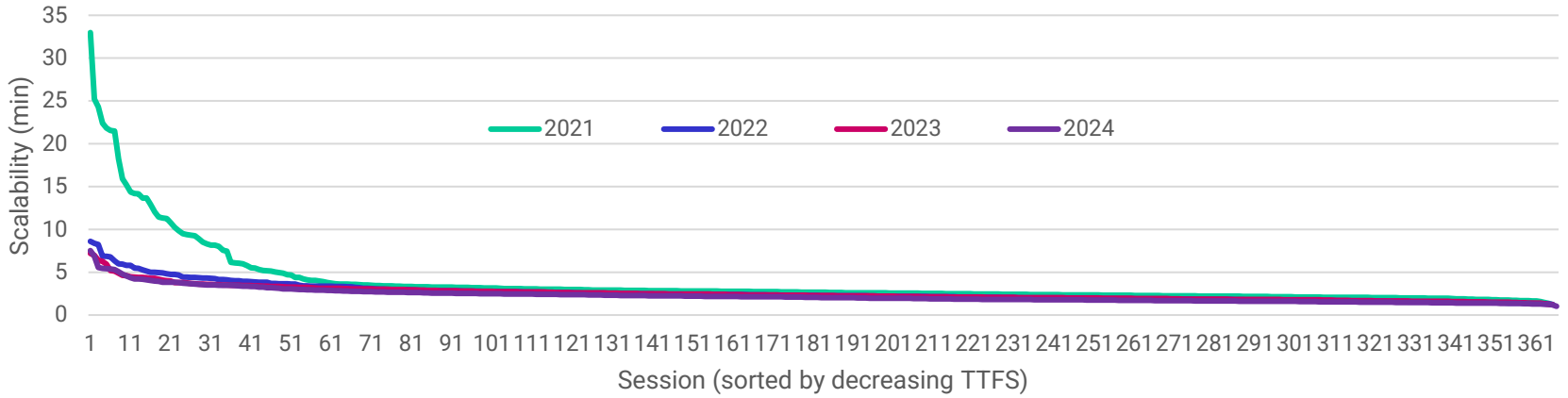
Average TTFS

" The performance of the SDAC algorithm continued to be highly reliable, ensuring yearly average TTFS of 2.26 mins, well below the maximum the 17 mins allowed."

* Equal to the sum of the average usage of different products (number of steps at BZ level, number of BOs, number of BO exclusive groups, number of families, number of COs, number of SCOs, number of demand MO, number of supply MO, number of PUN) per session.

Algorithm scalability (min)





" During 2024 the performance of the SDAC has been better than previous years accommodating the further increase in the usage of products."

Performance monitoring report: analysis on the usage of each product and its impact on algorithm performance

The **individual impact on performance** of each product is assessed: the analysis, performed against a historical dataset from Q4 2024, is performed for all the products included in the DA product methodology, apart from Stepwise Curves, Simple Blocks and merit orders.

		Reference Scenario				
		Actual values		Impact on performance*		
	Products	Orders submitted (#)	Traded volumes (GWh)	AVG TTFS (s) E11.3	ΔTTFS (s) E11.3	ΔTTFS (%) E11.3
Reference	Reference scenario			107.7	-	-
Scenarios in which products are replaced	Stepwise Curves	242 382	6 912	Not estimated		
	Piecewise Curves			79.8	-27.8	-25.9%
	Merit orders	44 793	699	Not estimated		
	Block Orders (BO)	5 317	394	Not estimated		
	Smart Block Orders (exclusive groups + linked blocks)	2 866	Not available	85.4	-22.2	-20.7%
	MIC/MP and load gradient orders (that are converted into BO and curves)	50	76	81.0	-26.7	-24.8%
	MIC/MP and load gradient orders (that are converted in to Scalable Complex Orders)	50	76	84.2	-23.5	-21.8%
	MIC/MP and load gradient orders and Scalable Complex Orders (that are converted into BO and curves)	73	120	79.0	-28.7	-26.6%
	PUN Orders	23 873	746	90.1	-17.5	-16.3%
	PUN and Merit Orders	68 666	1 445	75.5	-28.3	-26.2%

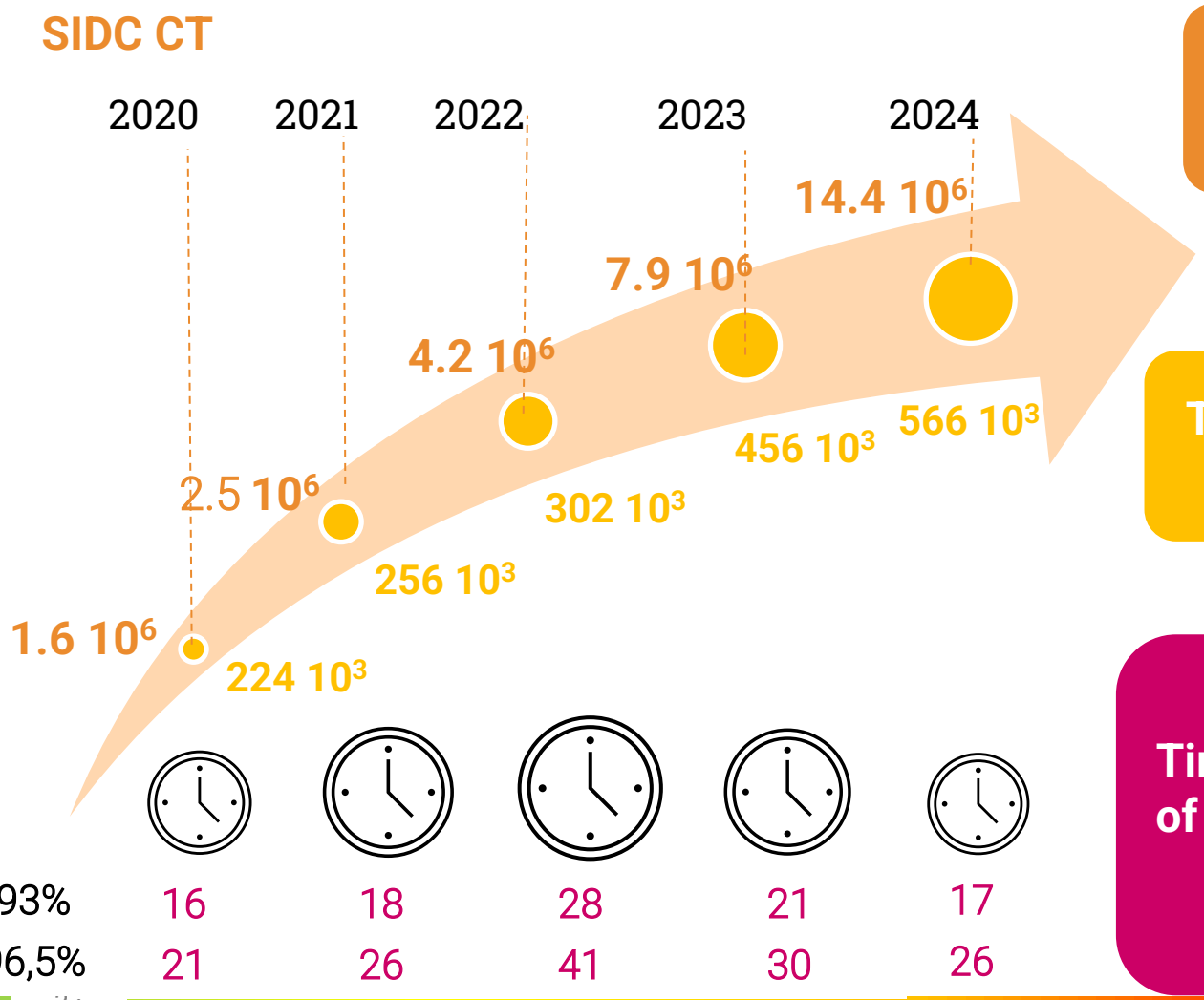
A negative value means that when the product is replaced, the TTFS is shorter than in the reference scenario.

Overestimated impact on performance: the conversion eliminates not only the individual impact of each product but also the combined effect linked to the interaction with the remaining products

Outcome heavily depending on the methodology used: The conversions done in this study may not reflect a realistic behaviour of market participants in case one product is replaced by another one.

*All the scenarios, except for the one in which piecewise curves are converted in stepwise curves, are calculated using default configuration (the one used in production).
For the scenario in which piecewise curves are converted in stepwise curves, different internal parameters have been used, as suggested by the algorithm provider (these are different than the default configuration).

Performance monitoring report



Rate of executed orders (daily average)

Total matched daily volume (MWh)

Time for the execution of an order (ms)* perc 93% and 96,5%

"Steady increase in number of orders in continuous trading and trades through 2024, while indicators showing stable performance."

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SIDC IDA

According to the annex 4 of the AM, the performance monitoring report for IDAs takes into account the same indicators adopted for SDAC, following a "mutatis-mutandis" approach

	IDA 1	IDA 2	IDA 3
Economic surplus per session	167 M€	18 M€	5 M€
Optimality gap	4 750 €	4 323 €	1 970 €
Average TTFS	54 s	46 s	26 s

"Good performance recorded also for IDAs, for the first six months after the go-live."

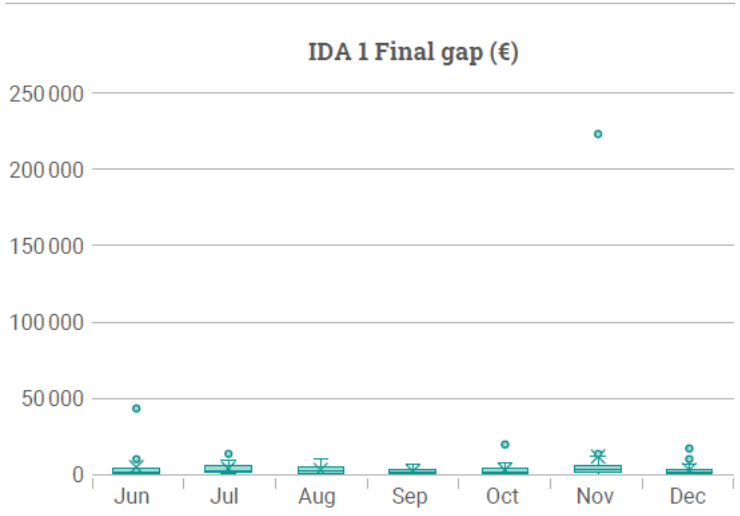
Thanks to the simplification with respect to SDAC in products usage, optimality gap could be calculated: High optimality obtained for all the IDAs (low values in OG indicate high optimality)!

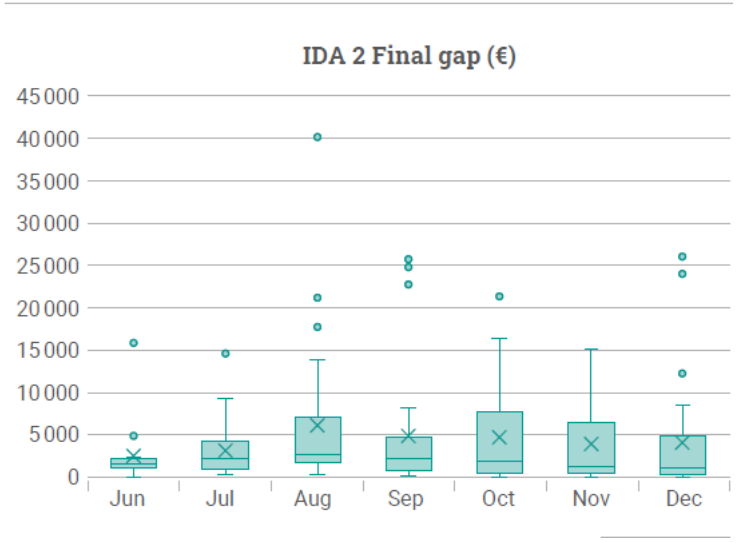
SIDC IDA

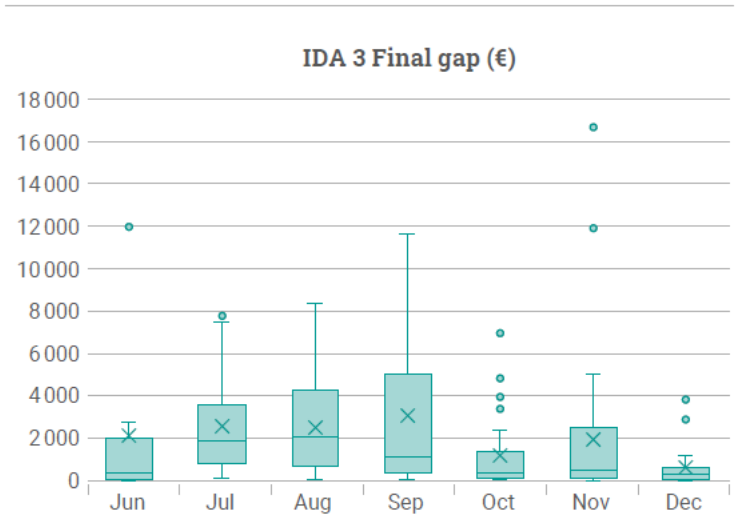
Due to the specificities of intraday with respect to the day-ahead auction, complex orders as well as PUN orders, which are in use in SDAC, have not been activated in IDAs. This allowed to compute the Optimality GAP values for the three IDAs, quantifying the exact distance from the optimal solution. Final gap values have to be compared to the value of the economic surplus of the final solution.

Final gap expressed as percentage of the value of the economic surplus of the final solution (%)

IDA1: 0.003% **IDA2: 0.03%** **IDA3: 0.03%**



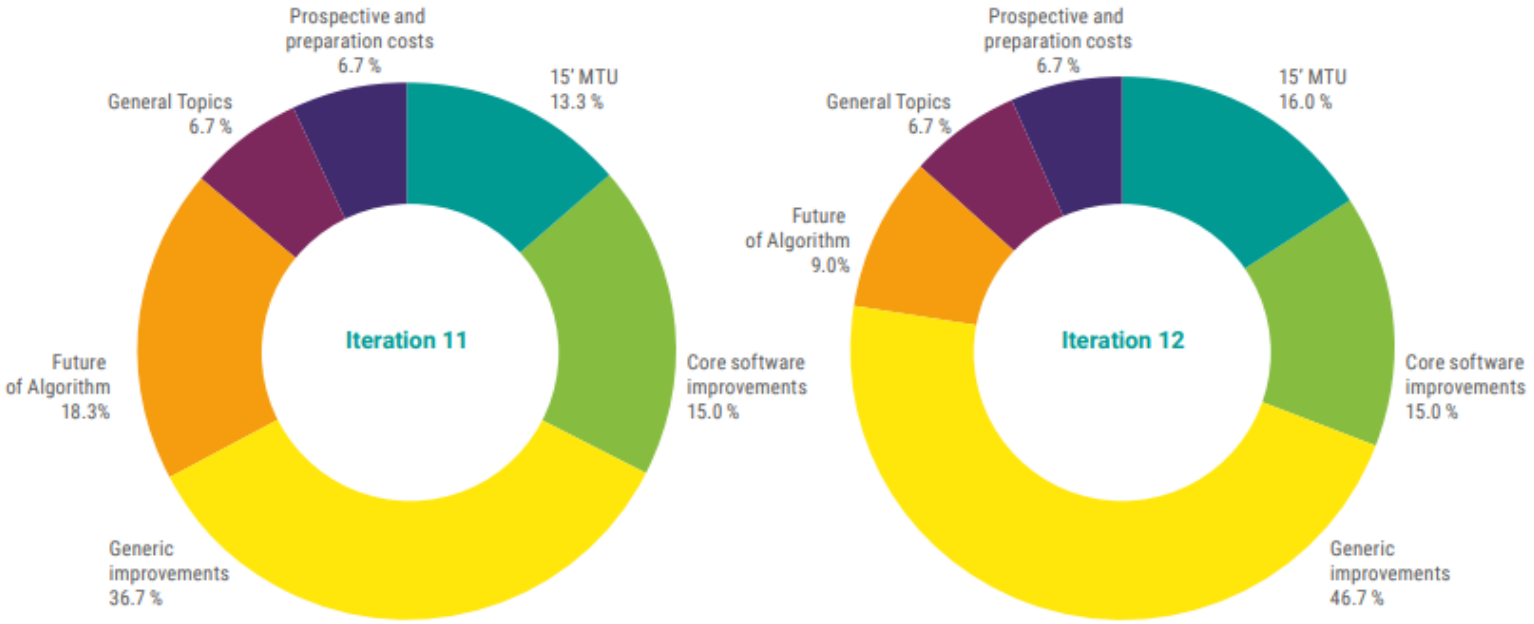




R&D report

Since the beginning of Euphemia Lab in 2019, the program has been pivotal in developing and integrating several innovative solutions into future EUPHEMIA releases. Key activities for performance assessments with new 15' MTU batches, as well as improving solver and fallback , exploring potential future adaptation under CACM requirements were the main research topic in 2024. Among generic improvement category: new heuristics that could improve the process of complex order reinsertion, new HVDC line type, which allows for lighter modeling of virtual bidding zones and HVDC reversal avoidance mechanism, adequacy patch module.

R&D programme for the price coupling algorithm: budget share per topic

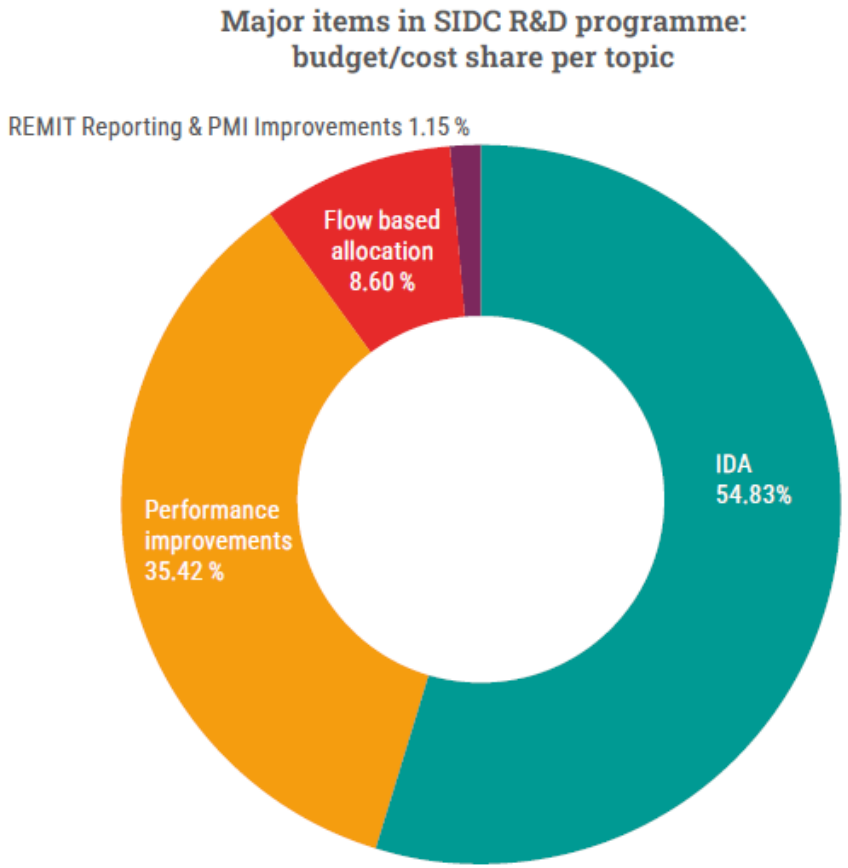


"Final thorough simulation runs were carried out for both SDAC and SIDC IDA, confirming that 15-minute products can be seamlessly accompanied by existing hourly and half-hourly products."

Iterations 11 and 12 took place from April 2024 until March 2025. Almost 858 k€ allocated in R&D activities for 2024 + 186 k€ for Co-optimization considered a parallel stream starting from Iteration 12

R&D report

The R&D focus in 2024 was mainly on the principal functional extension of the SIDC functionalities: finalization of Intraday Auctions, further analysis of Flow-Based Allocation, improvement of performance to level up with the higher utilization of the trading platform.



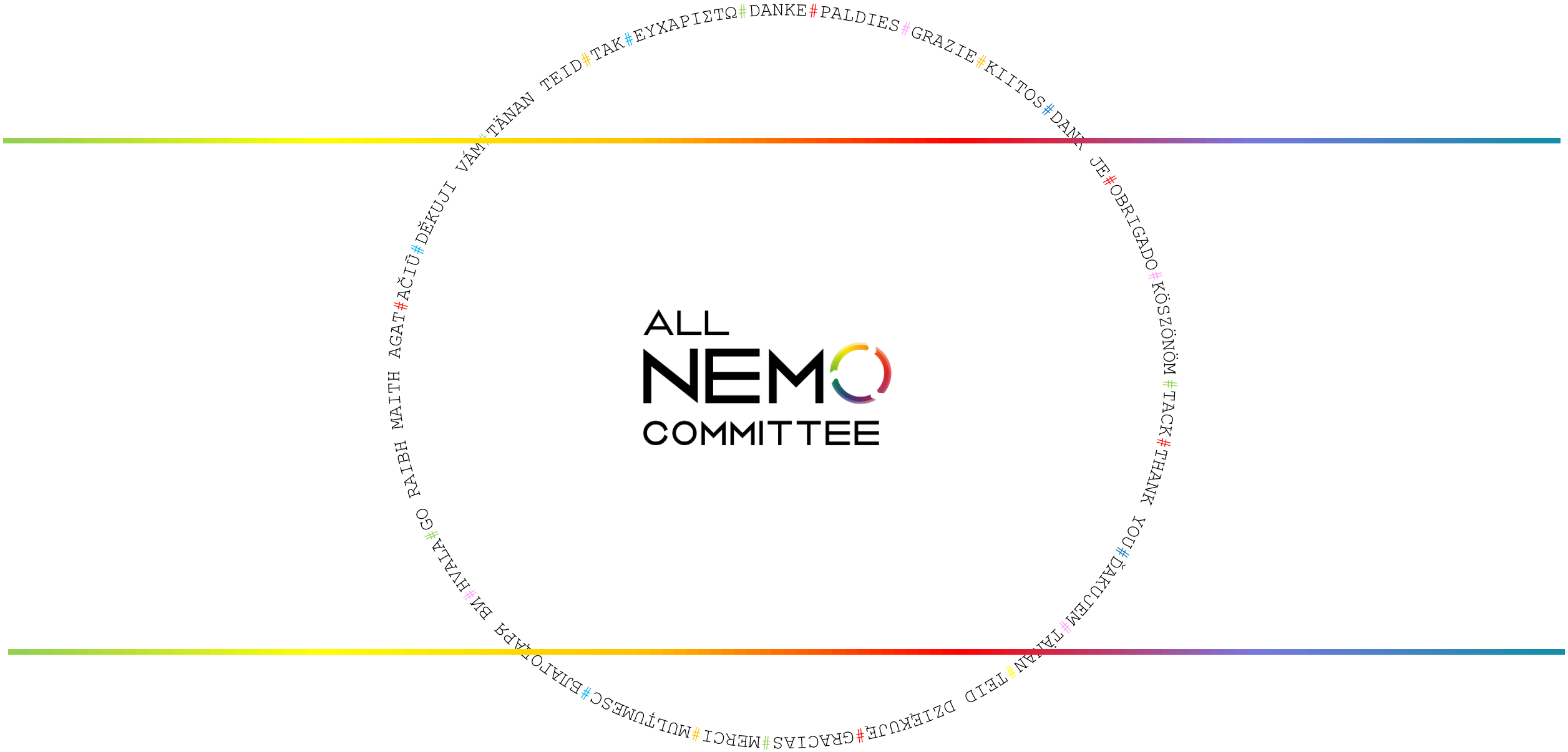
IDAs: improvements related to the stability, robustness, technology and operational use

CT: Performance improvement, defining the set of technical improvement measures to allow further growth in CT utilisation.

Flow Based:

- 1st track focused on the so-called interim solution, implementation of FB for IDAs, where the performance impact is not posing a principal issue.
- 2nd track focused on the final solution which is intended to cover also Continuous Trading.

Remit Reporting: optimization and improvements in the central functionalities of REMIT reporting for continuous market were implemented, e. g. related to mini auctions or handling of orders.


ALL
NEMO
COMMITTEE
THANK YOU#DAKUJEM#TAKAN#TEID DZIĘKUJĘ#GRACIAS#MERCI#MULȚUMESC#БЛАГОДАРЯ БИ#HVALA#GO RAIBH MAITH AGAT#AČIŪ#DĚKUJI VÁM#TÄNAN TEID#TAK#ΕΥΧΑΡΙΣΤΩ#DANKE#PALDIES#GRAZIE#KIITOS#DANK JE#OBRIGADO#KÖSZÖNÖM#TACK#THANK

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CACM Annual Report 2024- Key insights

Q&A

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KEYNOTE SPEECH

Nicolás González Casares
Member of the European Parliament

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LUNCH BREAK

Next session at 13:40

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Panel session

Moderator: **Michela Beltracchi**, Senior Adviser Public & Regulatory Affairs, Nord Pool

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13:40 –14:20

PANEL SESSION: MARKET COUPLING FOR A SUSTAINABLE FUTURE: STAKEHOLDERS' PERSPECTIVE

Speakers:

- **Jerome Le Page**, Chair of the Electricity Committee, Energy Traders Europe
- **Zélie Gautier**, Market Coupling Consultative Group Co-convener
- **Cosimo Campidoglio**, NEMO Day-Ahead SC Chair
- **Jasmina Trhulj**, Head of Electricity Unit of the Energy Community
- **András Hujber**, Deputy Head of Unit DG Energy, Relations with the Member States and the Energy Community, European Commission
- **Max Schneider**, Advisor – Wholesale Markets, Eurelectric

Moderator: **Michela Beltracchi**, Senior Adviser Public & Regulatory Affairs, Nord Pool

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Panel session

Q&A

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KEY TAKEAWAYS

Ondrej Maca

NEMO Committee Intraday SC Chair

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CLOSING REMARKS

Lukasz Kolinski

Director of Green Transition and Energy System Integration,
European Commission

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THANK YOU

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