



Überblick SDAC & SIDC

APG Marktforum – Christoph Jachmann

16.04.2024

Roadmap SDAC & SIDC

Day Ahead

- SDAC De-Coupling Training 20.03.2024
- Projekt 15 Minuten MTU – Überblick

Intraday

- Projekt Intraday Auctions – Überblick

Stakeholder Management

Abkürzungen:

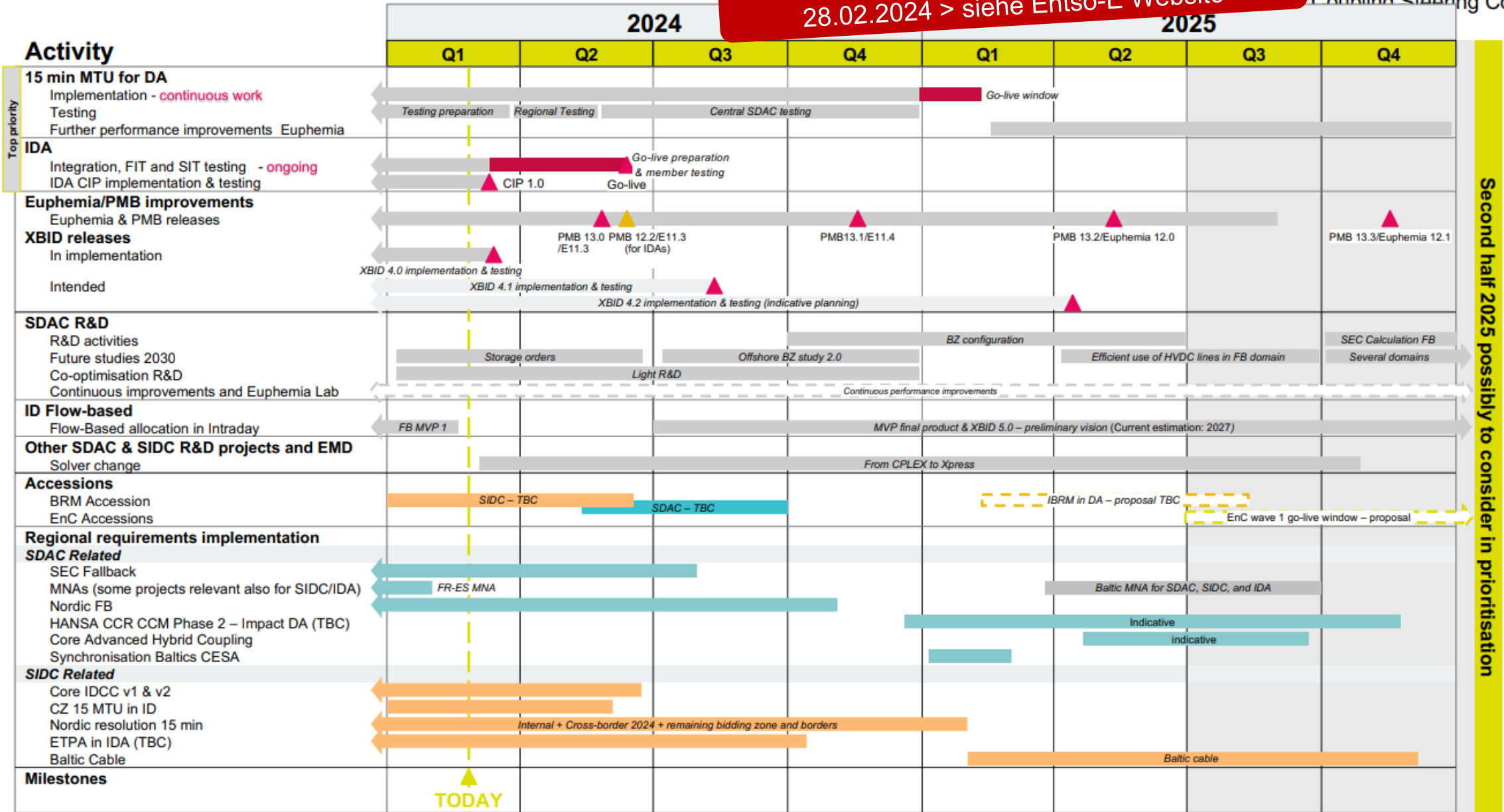
SDAC: Single Day Ahead Coupling

SIDC: Single Intraday Coupling

} Wird organisiert unter dem Market
Coupling Steering Committee (MCSC)

MCSC Integrated roadmap – out of prioritisation exercise scope

Veröffentlichte Folien vom MESC Meeting,
28.02.2024 > siehe Entso-E Website



Second half 2025 possibly to consider in prioritisation

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SDAC De-Coupling Training Session

mit Marktteilnehmern, 20.03.2024



Hintergründe und Ziele dieser Trainings-Einheiten:

- Backup-Möglichkeit **grenzüberschreitender Stromhandel**
- Training insbesondere relevant, da Marktteilnehmer im Fallback zusätzliche Prozesse (**Shadow Auction**, grenzüberschreitende **Fahrpläne**) beherrschen müssen
- In AT 15 Marktteilnehmer registriert
 - Erfolgreiche Nominierung: 3 von **6 aktiven Marktteilnehmern**
 - Vergleich: **2023** waren es noch **15 aktive Marktteilnehmer**
- **FEEDBACK** zum Training durch JAO von den Marktteilnehmern im Nachgang gesammelt. Danke!

Info-Box

Training@ **SDAC**

- Bisherige SDAC De-Coupling Trainings
 - 20.03.2024
 - 11.05.2023 & 13.10.2022
 - 03.03.2021 & 30.09.2020
- Marktinformation & Registrierung:
 - Z.B.: [JAO > Link](#);
 - Info von JAO/NEMOs direkt an Marktteilnehmer
- Procedures & Rules
 - [JAO eCAT Resouce-Center \(JAO\)](#)
 - [Shadow Auction Package/Guide \(JAO\)](#)
 - [Shadow Auction Rules \(JAO\)](#)
 - [Link auf Entso-E HP \(DAOA Annex\)](#)
- Siehe vorangegangene APG-Webinare:
 - [Link auf APG-Marktforum](#)
 - Z.B.: 26.04.2021, 14.11.2022, 05.06.2023

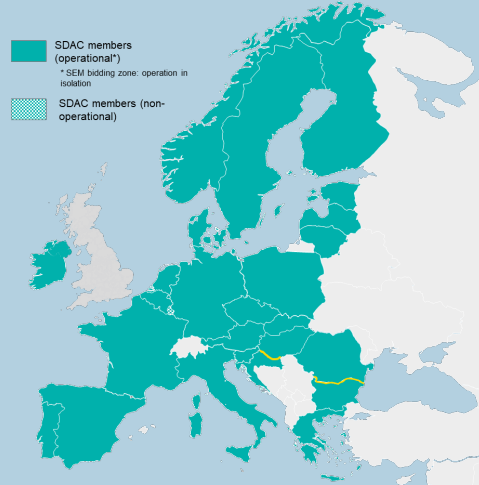
Einführung von 15' Produkten im Day Ahead



Aktuelle Situation



- Market-Coupling des EU-Binnenmarkts umgesetzt
- Market Clearing auf **Stundenbasis**



Zukünftiger DA-Markt

- 15-Minuten Granularität im gesamten Single Day Ahead Coupling (SDAC)

Regulatorische Anforderungen

Zeitplan Umsetzung

- Regionales Testen für Core und IBWT ist am 15.04.2024 gestartet
- Testen auf gesamteuropäischer Ebene startet nach IDA go-live
- Go-live im **Q1 2025** geplant

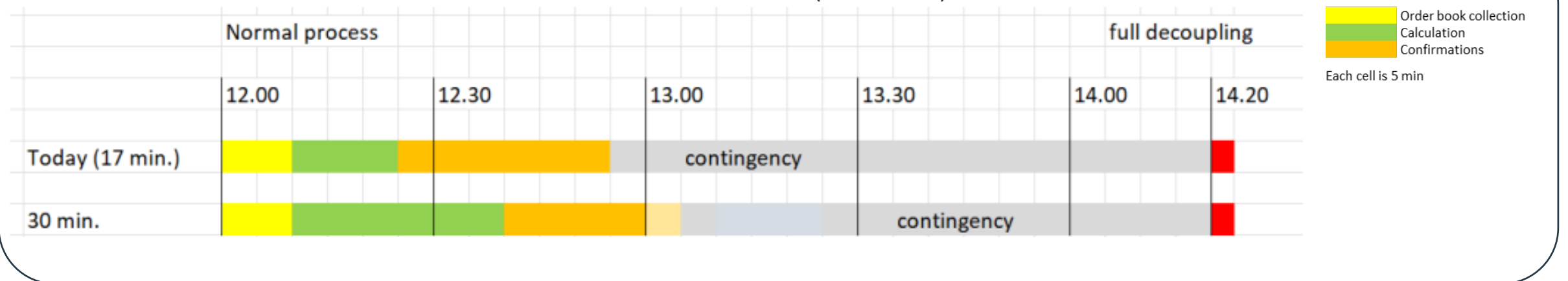
15' Produkte – Änderungen im Prozessablauf



- Rechenzeit des Market Coupling Algorithmus (Euphemia) wird von 17 auf 30 Minuten erweitert
→ Nachgelagerte Prozesse verzögern sich
- Auswirkung auf Verfügbarkeit der Ergebnisse des Market Couplings soll minimiert werden. Wird derzeit noch getestet. Ziel ist Veröffentlichung finaler Ergebnisse um 13:01
- Decoupling Deadline bleibt wie bisher 14:20

Auszug MCCG Meeting Februar

SPOT-MARKT (DAY AHEAD)



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- Projekt Intraday Auctions – Überblick

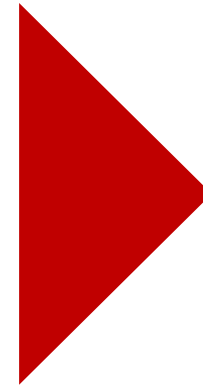
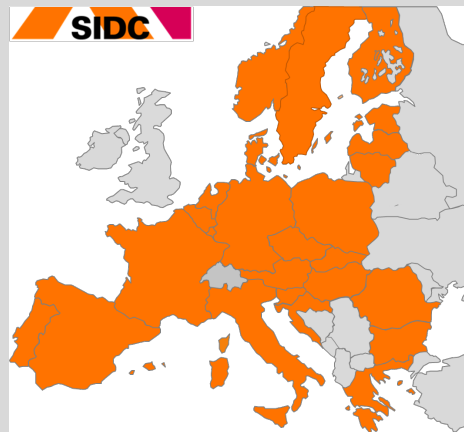
Stakeholder Management

SIDC – Einführung von Intraday Auktionen



Aktuelle Situation

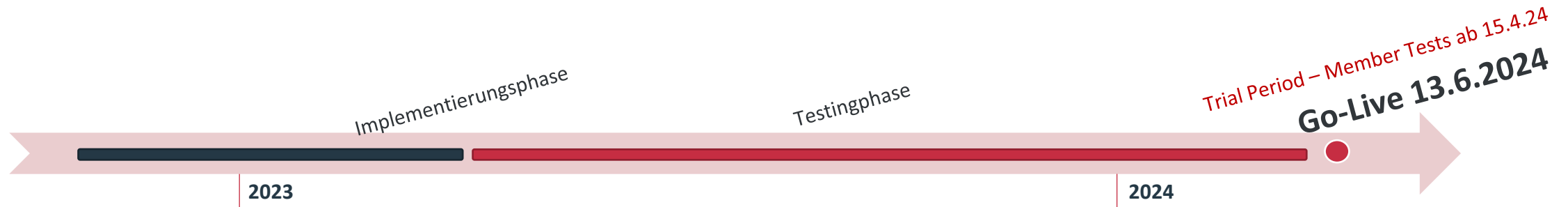
- Seit Juni 2018
- Europaweiter KONTINUIERLICHER Intradayhandel ohne Kapazitätsbepreisung
- 2022: Grenzen von 25 Ländern gekoppelt



Zukünftiger ID-Markt

- Europaweiter KONTINUIERLICHER Intradayhandel ohne Kapazitätsbepreisung
ergänzt um
- Europaweite Intraday AUKTIONEN mit Kapazitätsbepreisung

Regulatorische Anforderungen

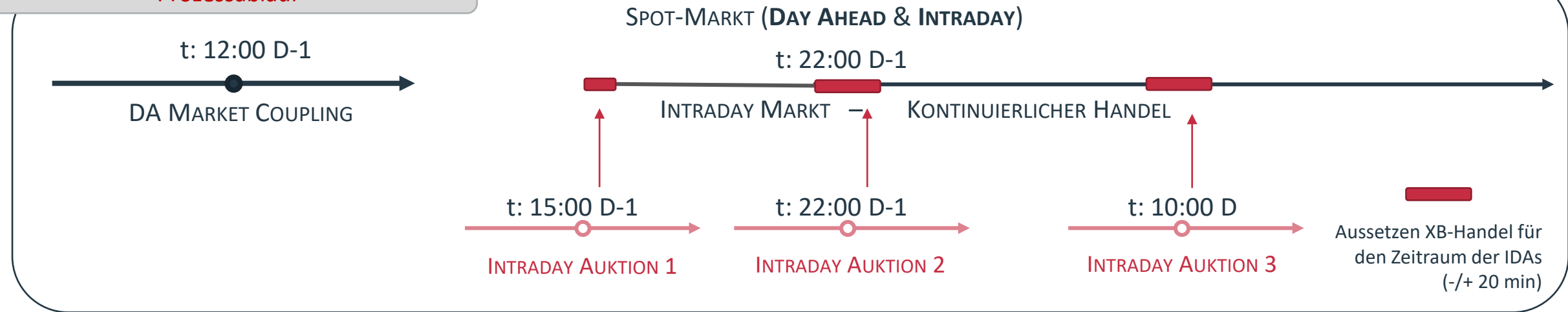


Intraday Auktionen (IDAs) - Gegenstand



- Einführung von drei impliziten Intraday Kapazitätsauktionen
- Anwendung des europäischen (DA) Marktalgorithmus EUPHEMIA
- Kapazitätsberechnung (formal) nicht Teil der IDA Implementierung

Intraday Auktionen im täglichen Prozessablauf



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Stakeholder Management

MCSC Stakeholder Management



Market Coupling Consultative Group – MCCG #6: 27.06.2024

Was ist die MCCG – Market Coupling Consultative Group?

- Stakeholder **Interaktions-Plattform** in MCSC (SIDC & SDAC)
- **Diskussions-Plattform** mit Stakeholdern und Marktteilnehmern operativer sowie entwicklungsrelevanter Themengebiete im Market Coupling (Intraday - SIDC und Day Ahead – SDAC)
- **Veröffentlichung** der Minutes auf Websites von Entso-E (TSOs) und NEMOs
- Für **Verbände** und **individuelle** Marktteilnehmer
- Registrierung für das 6. MCCG am **27. Juni 2024** online ([Link](#))

Info-Box

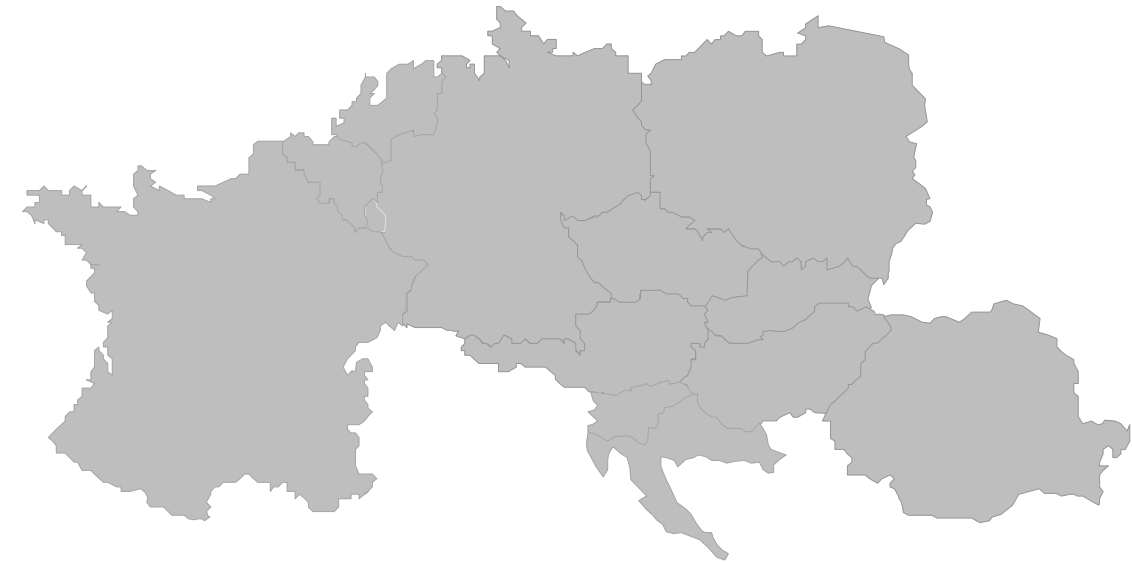
MCCG@  **MCSC**
Market Coupling Steering Committee

- Minutes bisheriger MCCGs:
 - ❖ [Minutes: Link/Entso-E](#)
- 3 reguläre **Meetings/Jahr**
 - ❖ letztes Meeting: 26.02.2024
 - ❖ nächstes Meeting: 27.06.2024
- Meetings zu spezifischen Themen
 - ❖ z.b. [IDA Pre-Launch Event, 21.03.2024](#)

Core Stakeholder Management



- Die Core Consultative Group Meetings finden halbjährlich (und ggf. anlassbezogen) statt und informieren über alle Verpflichtungen der CORE CCR.
 - Day Ahead CC
 - Intraday CC
 - Longterm CC
 - Balancing CC
- Nächste Online Meetings:
 - 6. Mai 2024 (15:00 – 17:00 Uhr) IDCC Go-Live Call**
 - 17. Oktober 2024 - Nächster regulärer CCG Call**
- Anmeldungen zu Core Consultative Group Meetings:
[Core Consultative Group Newsletter](#)
- Die Unterlagen und Aufnahmen der Meetings werden hier veröffentlicht:
[Core CCR Meetings & Events \(entsoe.eu\)](#)
- Q&A Forum zu Core FB MC auf JAO Website:
[Core FB MC Q&A \(my-ems.net\)](#)



CORE Region

Gekoppelte Großhandelsmärkte für Strom – Update NEMOs

APG Marktforum
Wien, 16. April 2024

**NORD
POOL**

E **XAA**
Energy Exchange Austria

 **epexspot**

Agenda

1. Einleitung und Vorstellung der Präsentatoren
2. SIDC Intradayauktionen („IDA“)
3. SDAC Marktzeiteinheit von 15 Minuten („15‘ MTU“)
4. SDAC Zweitauktionen („Second Auction“)

1. Einleitung und Vorstellung der Präsentatoren

Vortragende

- EXAA: **Mag. Dr. Rudolf Schneider**
- Nord Pool: **Armin Fleig**
- EPEX SPOT: **Arnold Weiss**

2. SIDC Intradayauktionen („IDA“)

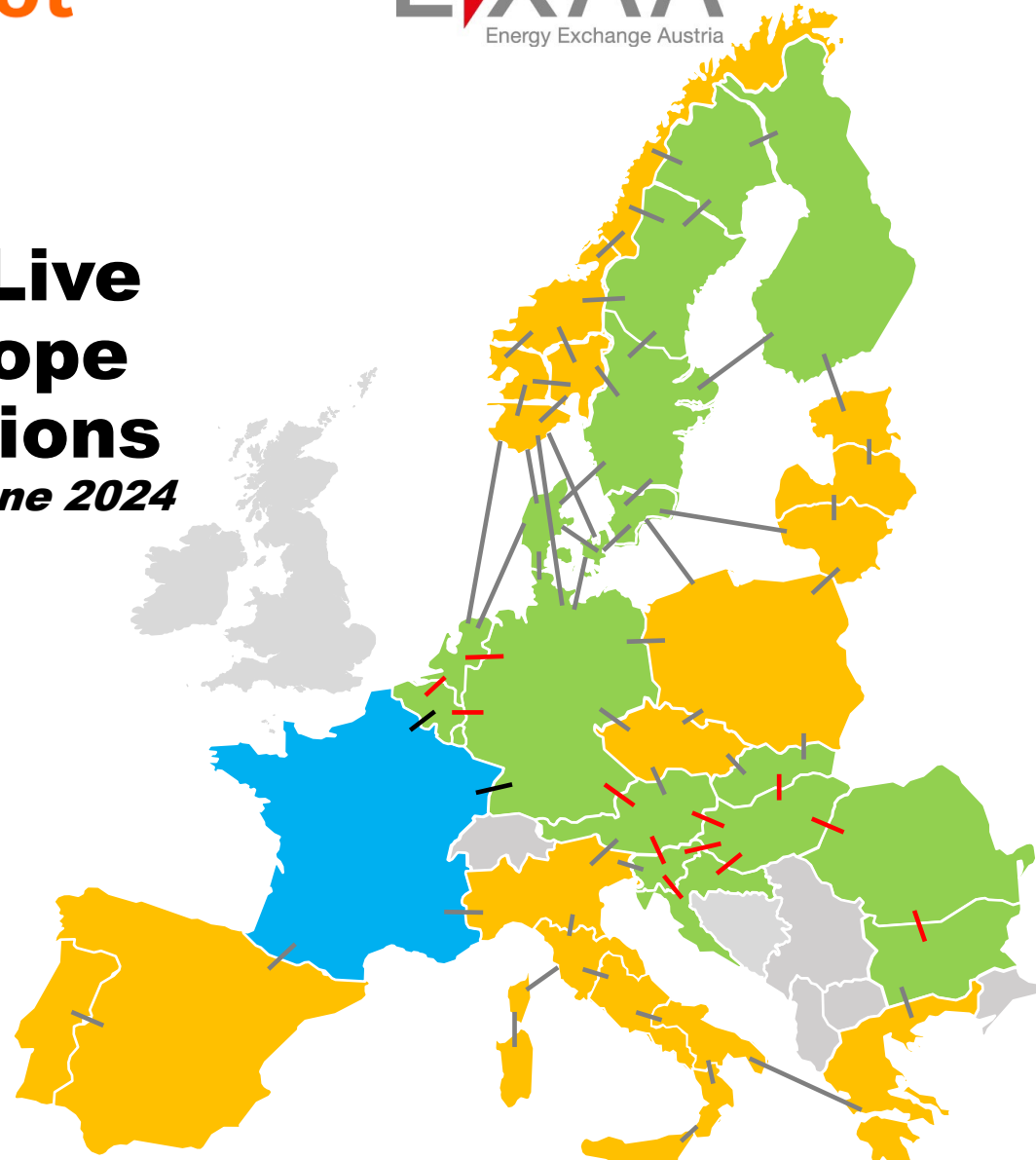
- **Geographischer Umfang und Produkte**
- **Überblick über operative Abläufe und Fristen**
- **Member Testing**
- **Weiterführung des intra-zonalen Intraday-Fließhandels**

Die folgenden Folien basieren auf den Präsentationen, die im Rahmen des MCCG-Treffens am 26. Februar von NEMOs und TSOs vorgestellt und mit den Beteiligten diskutiert wurden

Quelle: https://www.nemo-committee.eu/assets/files/26022024_MCCG_Supporting%20document_final-55e14fc438d2c73c7036501138e8f505.pdf

SIDC IDAs Go-Live geographic scope and configurations

Planned go-live 13th of June 2024

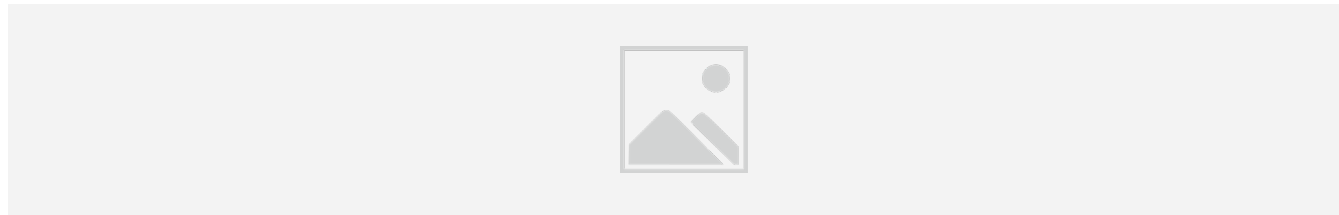


- BZB on 15 min MTU
- BZB on 30 min MTU
- BZB on 60 min MTU
- BZ on 15 min MTU
- BZ on 30 min MTU
- BZ on 60 min MTU
- Not part of SIDC coupling

AT, BE, BG, FR, DE,
NL, SI, SK areas will
have to manage
several BZB
resolutions

SIDC Intraday Auctions (IDAs) Summary of IDA operational timings

- Regular process

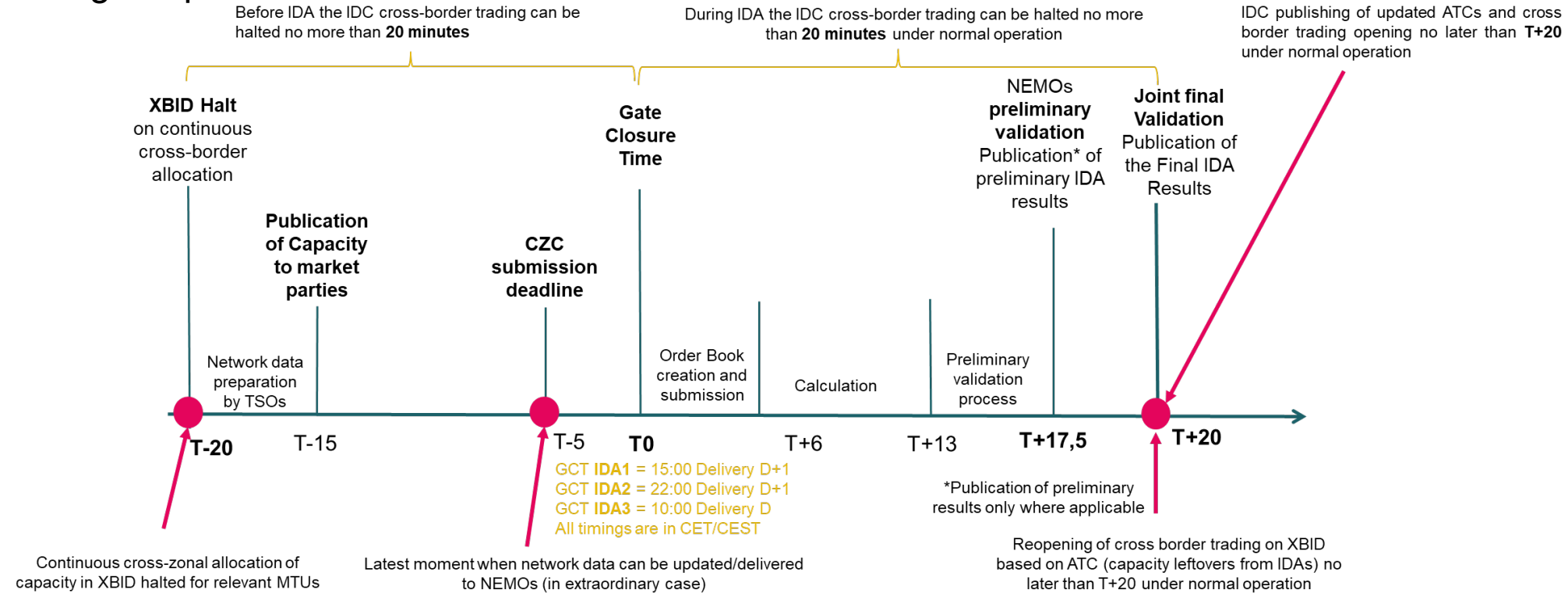


Summary:

- Continuous cross-border allocation will be interrupted under regular SIDC IDA operation for 40 minutes (-/+ 20 Min of IDA GCT).
- SIDC (XBID) Continuous trading will continue, where applicable on multi-NEMO basis, within Bidding Zones during SIDC IDA operation

SIDC Intraday Auctions (IDAs) Summary of IDA operational timings

- Regular process - details



Summary:

- IDA process timing addresses various challenges and high automation should secure process robustness.

SIDC Intraday Auctions (IDAs) Summary of IDA operational timings

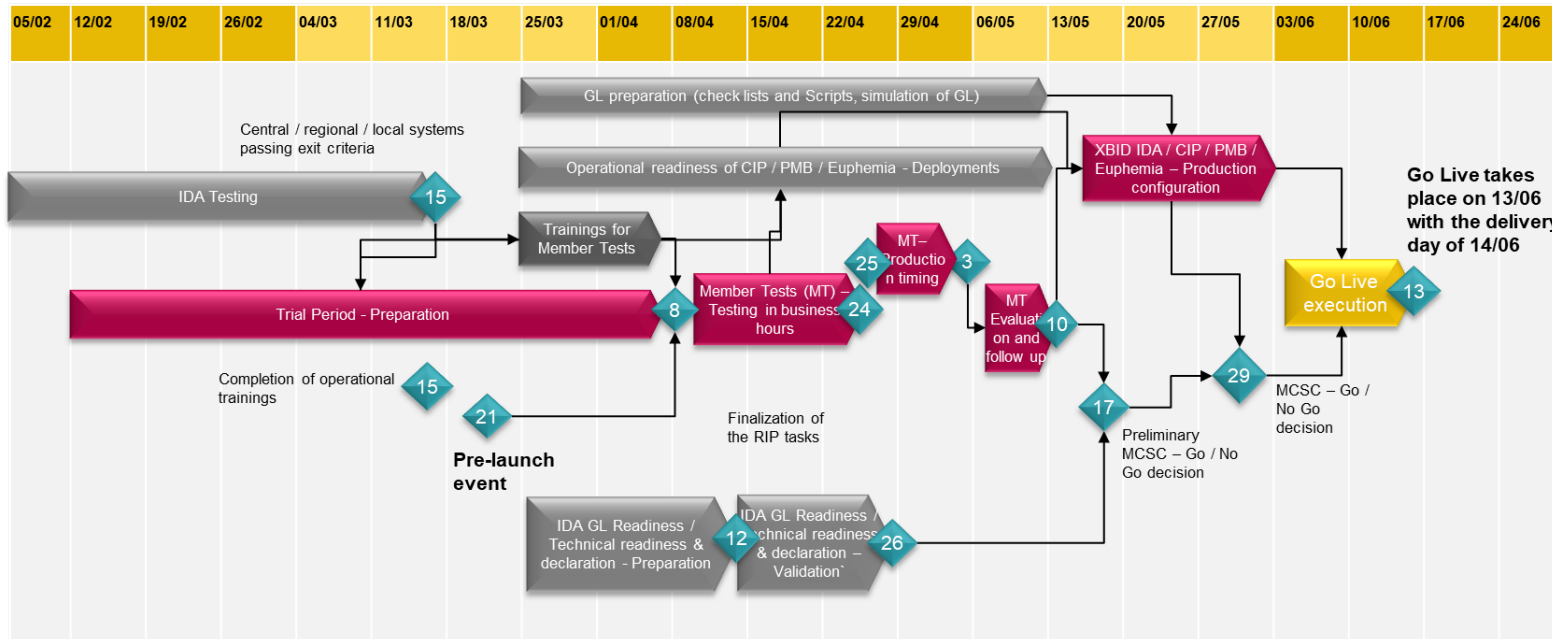
▪ Process irregularities

- DA results are not known by 14:10 D-1.
 - IDA1 session will be cancelled. Corresponding message will be sent by SIDC via instruction defined in procedures.
- IDA results are not delivered by the prescribed time for validation (GCT+27).
 - IDA session will be cancelled.
- Cross-border continuous allocation interruption shall not exceed GCT+30.
- Partial (de)coupling:
 - In case of issues experienced by a NEMO, the NEMO is decoupled and other NEMOs will be either automatically decoupled together with it or stay in the session, depending on configuration. The expected configuration is that only GME, OMIE and HENEX stay coupled, while all other NEMOs, Bidding Zones and BZ Borders would be decoupled from IDA.
 - The configuration reflects the impossibility, due to the short time available in IDA, of re-opening the OBKs (e.g., process in SDAC giving Market Participants the possibility to adjust bids due to the unexpected changes of market topology).
 - For IDA go-live the decoupled borders are kept closed in XBID CMM until the end of IDA auction, i.e., no continuous cross-border allocation, but this feature is foreseen to be modified later (in 2025) allowing to resume continuous cross-border allocation for decoupled borders earlier.

Summary:

- Market Participants will be informed on IDA cancellation.

SIDC Intraday Auctions (IDAs) Members testing planning



- **Member tests take place for 3 weeks and started on April the 15th with two different timing arrangements:**

- **Office hour timing: 15-19/04 and 22-24/04**
 - IDA3: 09:00
 - IDA1: 14:00
 - IDA2: 16:00
- **Production like timing: 25-26/04 and 29/04-03/05**
 - IDA3: 10:00
 - IDA1: 15:00
 - IDA2: 22:00

Summary:

- Two approaches on the timing to support needs of all SIDC regions.
- Market parties will be able to participate in the member testing via the NEMO of their choice.

3. SDAC Marktzeiteinheit von 15 Minuten („15‘ MTU“)

- **Projektplanung**
- **Angeborene Produkte**
- **Veränderungen/Limitierungen für Blockgebote**

Die folgenden Folien basieren auf den Präsentationen, die im Rahmen des MCCG-Treffens am 26. Februar von NEMOs und TSOs vorgestellt und mit den Beteiligten diskutiert wurden

Quelle: https://www.nemo-committee.eu/assets/files/26022024_MCCG_Supporting%20document_final-55e14fc438d2c73c7036501138e8f505.pdf

SDAC 15 min Market Time Unit (MTU) Project timeline

- Dedicated testing/project group has created a preliminary planning for testing and implementation for the go live of 15 min MTU in SDAC.
- The planning aims to take into account the most recent information on resource constraints and dependencies from other timeframes and European as well as relevant regional projects.
- Member testing is a part of the planning for which further info will be provided in the next MCCG session. **No testing with market participants will be proposed in H1 2024 (similar to other implementation projects).**

Summary:

- The dedicated SDAC 15 min MTU testing/project group is refining the implementation planning. The execution of the planning is heavily dependent on local and regional projects.
- In the next MCCG end of Q2 2024, more information on the member testing and other go-live preparations will be provided.

SDAC 15 min Market Time Unit (MTU) Recap on the decision on product mix

- **During 2023, MCSC made the two key decisions, answering request from market participants:**
 - Calculation time was confirmed to 30’.
 - The **product offering was confirmed** to include **15’, 30’ and 60’ product time resolutions.**
- **Key difference compared to current production offering**
 - PUN in Italy shall be removed as 1. 1. 2025 from market coupling calculation.
 - Complex Orders in Iberian Peninsula shall be replaced with Scalable Complex Orders.
 - Scalable Complex Orders are already in use in Ireland.
- The 4-year R&D work with the Euphemia algorithm enables us to support 15’ Market Time Unit with possibility to trade also with 30’ and 60’ MTUs and to allow the use of block orders at the current level.

Summary:

- Excluding the calculation time extension, the introduction of 15’ and 30’ MTUs and the changes in Italy and Iberian peninsula, the market continues to function basically as today.

SDAC 15 min Market Time Unit (MTU)

Description of 30' and 60' products

- Market Participants can use freely all MTUs from the ISP of the BZ up to 60' (depending on the individual NEMOs).
 - Block orders can be used as today with any of the available Market Time Units.
 - Each bidding zone has only formal clearing prices calculated on 15' MTU resolution (except Ireland 30'). NEMOs can calculate and publish 30' and 60' MTU prices based on the arithmetic average of the respective 15' MTU periods. Aligned with CACM regulation, all prices continue to be noted as €/MWh.
 - As the market has a price with single max/min prices, the price cap management is not changed.
 - The same price cap is used for all market time units.
 - There is no change in any of the acceptance criteria/process for any of the curve/block orders.
-
- **The key delta between DA and IDA**
 - IDA has a single MTU for each bidding zone; bidding zones may have different MTUs from each other.
 - SDAC central algorithm supports multiple MTUs for each bidding zone.

Summary:

- There are no restrictions on usage of the different market time units.
- Prices are calculated in €/MWh. While 15' MTU prices are the only formal clearing prices. Prices for 30' and 60' MTU prices are derived values representing the arithmetic average only.

SDAC 15 min Market Time Unit (MTU)

60' curves vs. 15' blocks

- **Maximum & minimum clearing price limits are the same** for all available market time resolutions, i.e. today +4000/-500 EUR.
 - **Reminder:** prices are €/MWh regardless of the used MTU.
- The **15' blocks can start and stop at any quarter of an hour.**
 - 10:15 – 12:30 is a valid block order with 9 periods of 15' each.
- **Paradoxical rejection of the coarser MTU curve orders:**
 - When the price needed to guarantee the financial balance for NEMOs/CCPs cannot be reached because of harmonised clearing price limits, the collected payment can exceed the payments to supplier (leading into extra money paradox).
 - To avoid extra money, the acceptance of orders with coarser resolution are adjusted. This may cause the curve submitted at coarser resolution to become (partially) paradoxically rejected.
 - One of the reason for limited risk of paradoxical rejection of coarser granularity orders is in case of low liquidity given on ISP/15min time resolution orders.
 - There is no priority between the curves and block orders, but naturally curves are more flexible, blocks more prone to rejection.

Summary:

- 15' block orders can start and stop at any quarter of an hour.
- The coarser MTU curve orders may in special cases be (partially) paradoxically rejected.

4. SDAC Second Auction

- **Überlegungen über den Wegfall von „SDAC Second Auctions“**
- **Erfahrungen mit „SDAC Second Auctions“**
- **Diskutierte Alternative**

Die folgenden Folien repräsentieren einen Auszug aus den Präsentationen, die im Rahmen des MCCG-Treffens am 20. Oktober von NEMOs und TSOs vorgestellt und mit den Beteiligten diskutiert wurden.

Ferner zeigen wir Folien, die seitens des NEMO Committees für den weiteren Austausch mit den Vertretern der Marktparteien im MCCG angefertigt wurden.

Quelle: <https://www.nemo-committee.eu/assets/files/MCCG-20102023-for-publishing-1bba37e3d4e7ca9ce1680954e91acc95>

SDAC Second Auction

Second auction process reconsideration

Background

- Following the assessment of the efficiency of the second auction process in terms of price formation as well as the associated operational risks, NEMOs opened on 24/11/2023 a public consultation with the intention to raise awareness on the possibility to remove the second auction process.
- The consultation ended on 15/01/2024.
- NEMOs published the public summary of the answers to frequent questions received through this consultation shortly after MCCG in a dedicated report, which is available under the following link: <https://www.nemo-committee.eu/assets/files/Consultation%20Report-ffdbc2492e8ca3589a5991ab58c0cbc8.pdf>.

Way forward

- In order to ensure a good understanding of the issues, additional explanatory note will also elaborate on the coverage by individual and joint-NEMOs processes of potential bidding mistakes made by market participants. NEMOs call for an adequacy between experienced issues and solutions.
- NEMOs will take a decision later in H1 2024, for an entry into force at a later stage, depending on the local decisions.

Summary:

- Second auction process is under reconsideration.
- NEMOs published public summary of the consultation as well as explanatory note shortly after MCCG.
- Decision to be taken in H1 2024 for an entry into force at a later stage.

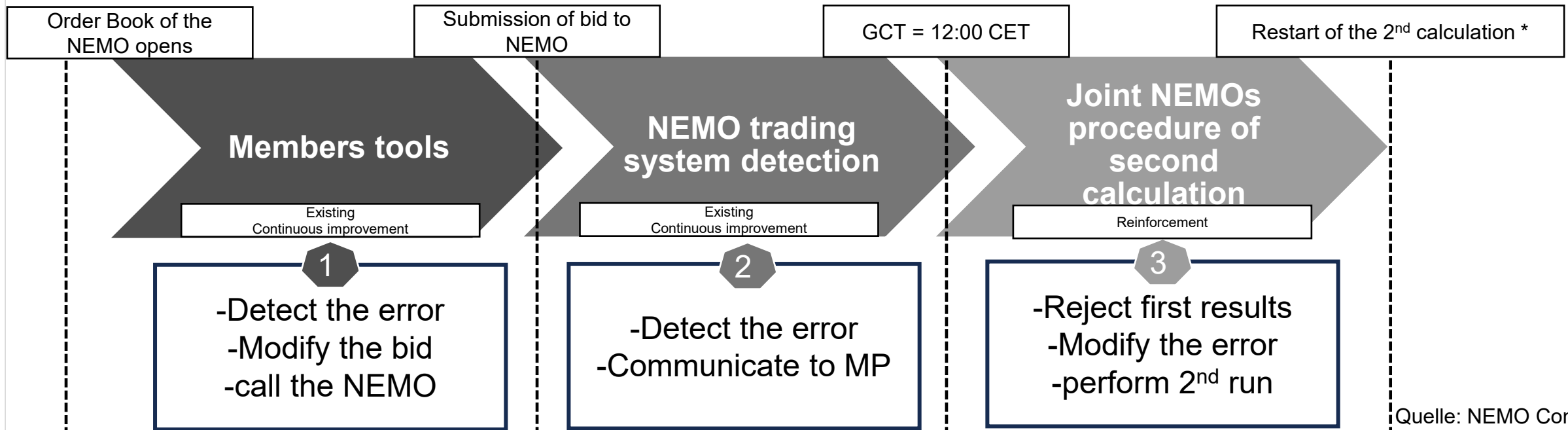
Next steps

- **Decision making:**
 - NEMOs are undergoing the following alignments:
 - Internal Boards
 - Market participants including associations and MCCG
 - National Regulatory Authorities when relevant or necessary
 - NEMOs would like to insist on the fact that steps 1 and 2 of the 3-layers defense are also valid for SIDC IDAs (timings are different) but not step 3 (no time to run a second calculation).
- **Timeline:**
 - **MCCG MPs convenors are expected to provide a feedback before 3rd May**
 - Decision on a potential change is expected in Q2 2024
 - NEMOs will not introduce any change
 - In SDAC excl. Baltic region before Q4 2024
 - In Baltic Bidding Zones before the introduction of the 15' MTU in 2025

Alternative proposal – 3 layers defense incl second calculation

- **Background:**

- NEMOs would like to bring back adequacy between experienced issues and proposed solution
- The 3 layers defense proposed by NEMOs:
 - reinforces the awareness on existing checks and processes
 - proposes efficient measures at each step of the process
 - brings a high level of robustness in the process of identification and correction of erroneous bids



Quelle: NEMO Committee

Second calculation vs second auction

	Second auction	Second calculation
Trigger	Price thresholds are reached in predefined list of SDAC Bidding Zones	Rejection of results by individual NEMO(s) due to identification of a wrong significant bid together with the market participant
Order Books reopened to MPs	YES, in a majority of SDAC Bidding Zones	NO, only problematic bid is modified or removed
Operational risk	<ul style="list-style-type: none"> -Completion of process a few minutes before full decoupling deadline -Reopening of Order Books, modification, and closing in 15 mins only is risky 	Limited to one order book, on selected bid
Efficiency	<ul style="list-style-type: none"> -No guarantee that MPs will improve the situation, on the contrary -Low usage by MPs 	<ul style="list-style-type: none"> -Targeted bid is identified quickly and modify or removed. -SDAC NEMOs Order Books except one remain untouched

- NEMOs would like to state that the second calculation (step 3 of the process) still represents some risks for SDAC operations. In light of this element, NEMOs call for proportionate usage of this concept.
- While no harmonization is possible for the definition of the trigger due to difference in products, liquidity of BZs, anticipated trading behavior of MPs, it is a fact that small errors will NOT be corrected after 12.00.
- This proposal already offers a much broader coverage of erroneous bids than with second auction concept.

Quelle:
NEMO Committee

Q&A

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