

MESC – Market Europe Stakeholder Committee

Update on MCSC

9 March 2023

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SDAC / SIDC Co-chairs

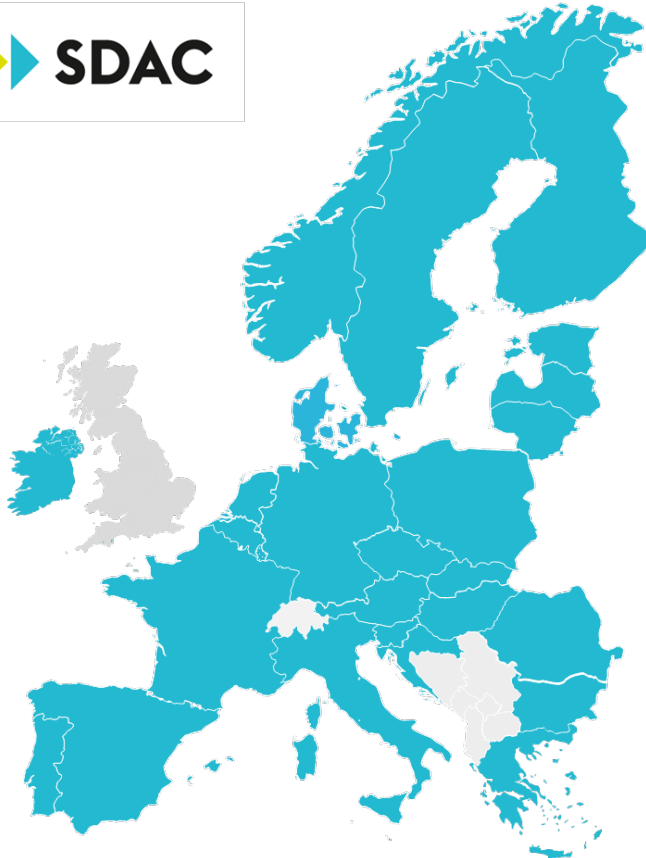
Agenda

- 1** MCSC overall
- 2** SDAC roadmap
- 3** SDAC 15min MTU updates
- 4** SDAC Non Uniform Pricing
- 5** SDAC Nordic Flow based
- 6** SIDC roadmap
- 7** SIDC R&D update
- 8** SIDC operation

1. Completion of SDAC and SIDC

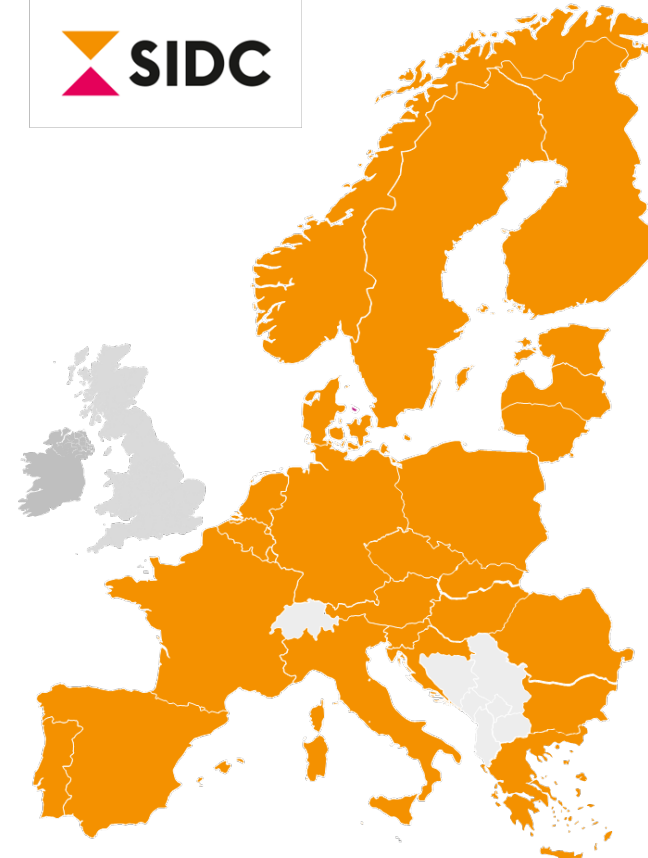
 **SDAC**

Close to
10 years
working



 **SIDC**

This June
5 years
working



Complete and well-functioning SDAC and SIDC

SDAC and SIDC show perfect resilience of market coupling in times of crisis.

SDAC and SIDC actions for market parties to boost market confidence:

- frequent updates of MCSC parties on matters of curtailment;
- several trainings and workshops to introduce new features, functions.

New records in 2022 in SIDC

Overall monthly traded volume is over 10 million MWh from November

Similar to previous years, there is a lot happening in 2023 and 2024.

From a market perspective, the following milestones on the roadmap are interesting to point out:

25 January **scalable complex orders - successfully introduced**

11 May decoupling **training session** with market participants - being prepared

Q1 2024 Nordic Flow-Based - being prepared

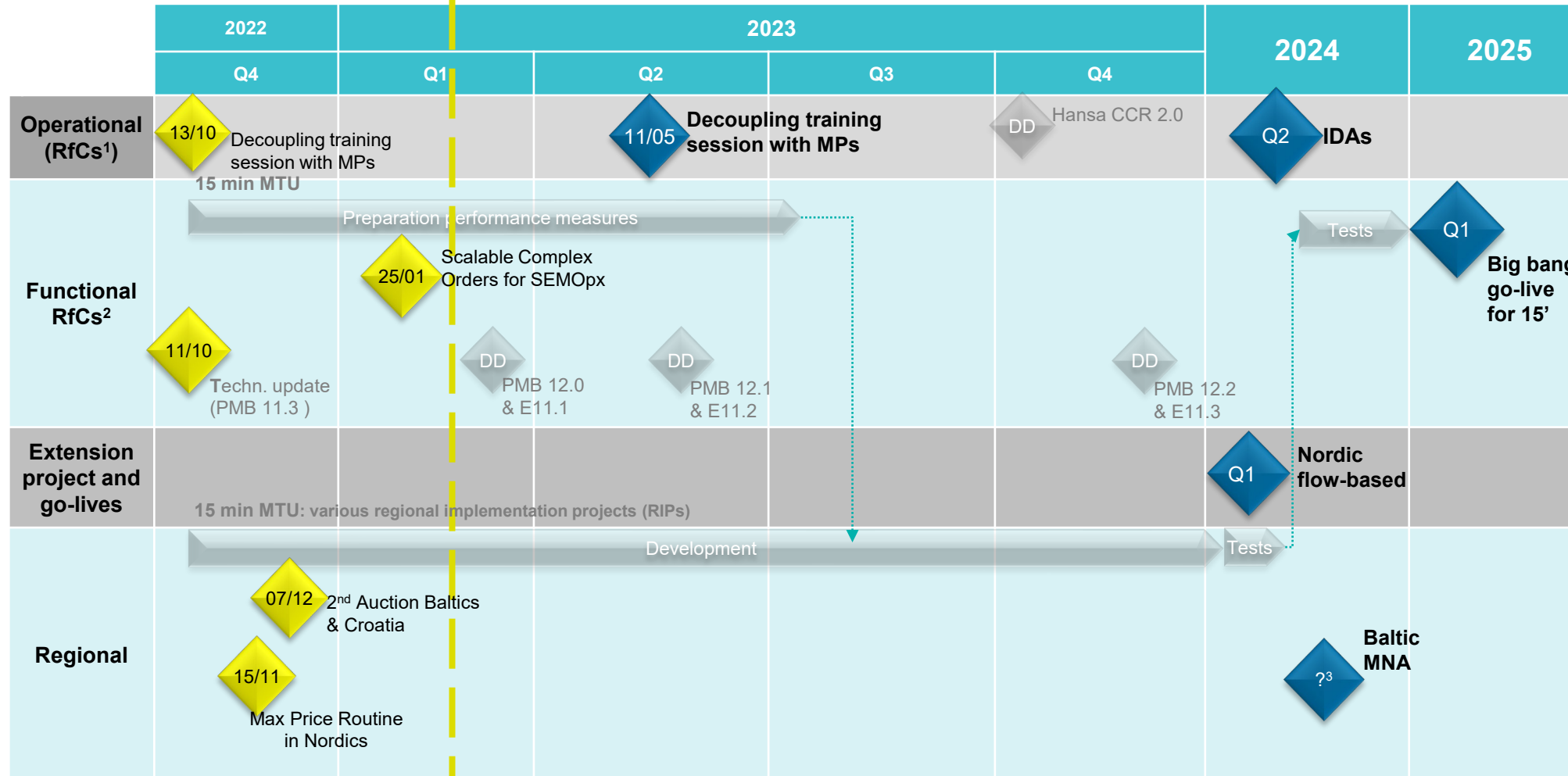
Q2 2024 IntraDay Auctions - being prepared

Prior to these (indicative) Go-Live dates / windows, the following typical phases (design, development, testing, Go-Live preparations) are gone through. For keeping the roadmap insightful, these phases have not been explicitly included, except for the 15 min MTU implementation project.

In addition to these, there are several other changes in the pipeline, but these are less relevant from a market participant perspective (and therefore visualized in a faded manner on the next slide)

2. SDAC high-level roadmap 2/2

Today, 21/02/2023

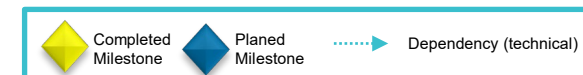


Remark:

Elements considered less/not relevant for the market have been faded, but are included for indicating the complexity

Notes:

- ¹ Changes of topology, bidding zones, which will have an effect on the operations of the market coupling. Not necessarily related to a change of Euphemia algorithm, but could possibly have as a prerequisite that a functionality is implemented first. In this lane, also the training sessions are included
- ² A change of functionality of Euphemia → requires a change in the algorithm. Hence, linked to algorithm releases.
- ³ Baltic MNA go-live is pending the entrance of a second NEMO



3. SDAC 15 min MTU product offering

- Product Methodology requires ISP* MTU to be available as the finest granularity and also the coarser granularities: 30min and 60min
- There is an interdependency between
 - Products offered to market participants by NEMOs
 - Calculation time allocated for the Euphemia
 - Computational efficiency
- SDAC MSD will simulate the potential product offerings to identify the impacts of different products and their usage. Some qualitative indicators will be monitored
 - For example: ratio between 15min and 60min orders, extensive usage of block orders, price volatility etc.
- Simulation results will be available before end of April.
- Proposal from SDAC MSD will be made by end of May for June MCSC approval. This will be discussed with market participants in the Market Coupling Consultative Group (MCCG) after June MCSC.

*ISP= Imbalance Settlement Period

4. SDAC Non Uniform Pricing

- **Decision from MCSC:** Hold any additional NUP R&D and implementation evaluations, after the already agreed ongoing tasks are finalised by Q2/2023
- Reasons for decisions proposal is based on the results seen from ongoing simulations:
 - NUP simulations (2021 data) provides a welfare improvement of 0.002% and
 - a performance improvement (Time To First Solution) reduction of 7-9% with similar batches
- These values are not sufficient to solve alone the potential issue related to future expected performance challenges and are extremely demanding in many other aspects:
 - implementing costs both at a central and local level,
 - impact on EU regulation(s),
 - impact on market design and
 - market participant strategies and challenges with how and whom should finance “uplift costs” that is a side-effect of NUP
- In the future, SDAC MSD may look again the implementation of the Non-Uniform Pricing

5. Nordic Flow Based EPR and data publication

Nordic Flow Based project publishes data from External Parallel Run (EPR) on two places

- Input data and other information: [JAO Publication Tool](#)
- **Input data is published every day** on JAO publication tool:
 - CNE and contingency information
 - CNEC parameters
 - Fmax, RAM, Fref', z2sPTDF, etc.
 - Maximum bilateral exchanges between two BZs in MW
 - BZ graphs
 - Market map
 - Tabl * Vertical load (Consumption – distributed generation)
 - Production (Transmission generation)
- Description of the published data on JAO: [Handbook](#)
- Results from Market Coupling: [Simulation Results](#)
- **Market coupling results are published** on a weekly basis, taken into account grace period of 2 weeks for data:
 - Scheduled Exchange
 - Physical Flow on CNECs
 - Prices
 - Price spread
 - Net positions
 - ATCE results
- Description of the simulation results on RCC: [Simulation Results Content](#)
- In addition market reports are published for each week

Nordic FlowBased project publishes newsletters: [Describe Newsletter](#)

6. SIDC Roadmap 2022-23 – High level summary (1/3)

The most important milestones in coming period (2023 and 2024).

From a market perspective, the following milestones on the roadmap are interesting to point out:

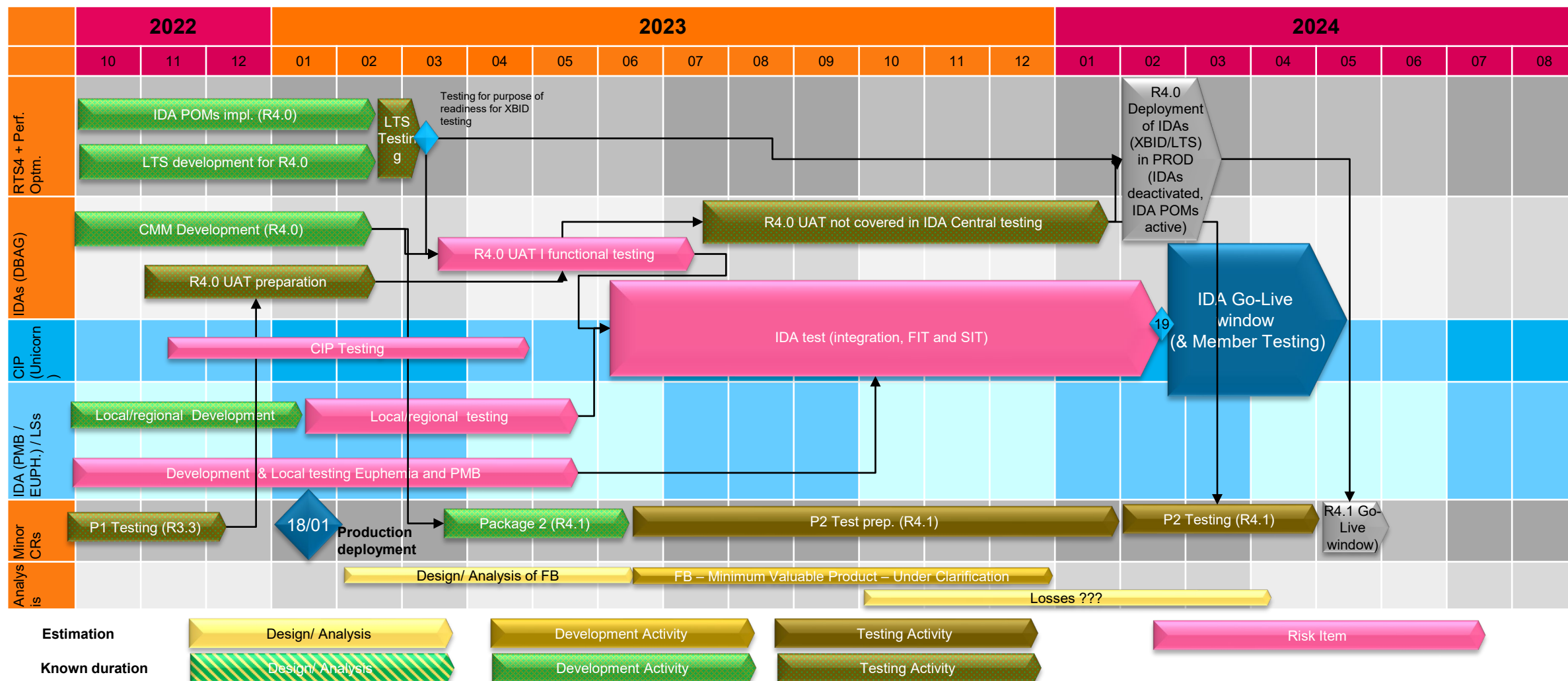
- 18 January** **Increase in the robustness processing of the continuous trading**
(5x increase in a number of order transactions and 3x in trades)
- 03-05 2024** Member Test (Trial period) for IDAs
- Q2 2024** Go Live of IDAs

It shall be noted that for IDAs the design and implementation phases of all respective assets on the central level are concluded and local/regional implementations continue in line with the planning. The planning of the testing activities is ongoing, for some of the assets the tests execution is already in full swing.

The detail planning of activities for IDA Go Live window, such as Member Tests, are subject of ongoing clarification and shall be completed soon.

6. SIDC Roadmap 2022-23 – Overview (2/3)

Release for IDAs & IDA POMs (R4.0), Priority CRs (R4.1), Flow based



6. SIDC Roadmap 2022-23 – Main changes (3/3)

- Main changes in comparison to the previous version of the roadmap and key planning elements
 - **There were minor updates of the testing timeline to deal with the complexity of IDA testing such as:**
 - Functional testing of a system for continuous trading (XBID) as well as functional testing of action-based systems (in CIP, PMB, Euphemia modules)
 - Non-functional testing of the whole chain – e.g. connectivity testing, End 2 End Testing, procedural testing (on top of IDA procedures also procedures for continuous and auction trading are subject of review) including testing of the dependencies of the trading timeframes (Day-Ahead → IDAs → Continuous trading)
 - Support to the testing activities of Regional Integration Projects (RIPs).
 - **Critical success factor is a readiness of all involved systems. There are some critical milestones which, if not met, will have a direct impact on the timeline/roadmap.**

7. Status on R&D changes (1/2)

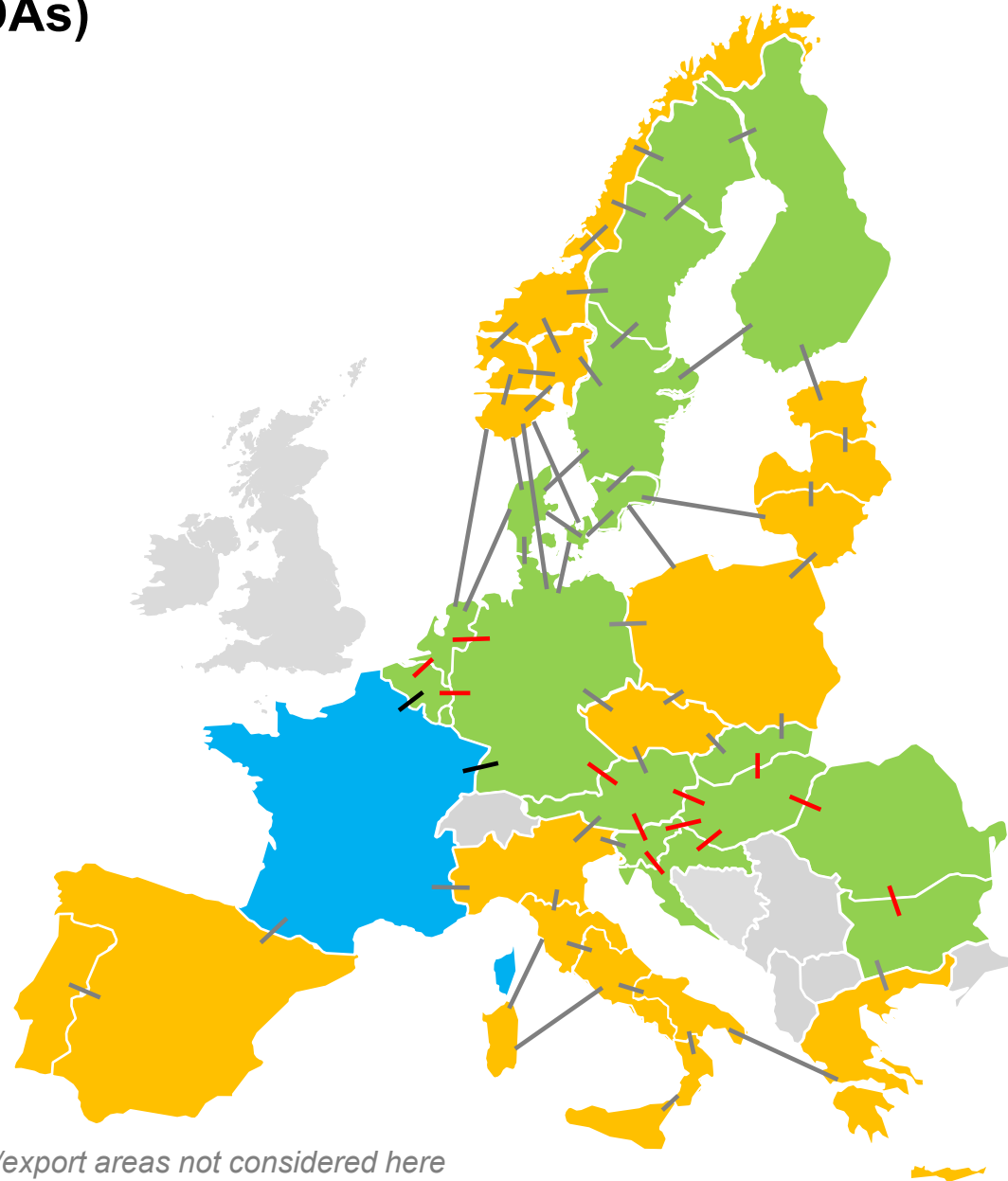
Intraday Auctions (IDAs)

- The **development** of some IDA components (XBID, EUPHEMIA, PMB) **is ongoing and to be finished in Q1 2023**. The **development** of IDA CIP **completed**.
- IDA CIP tests **are ongoing** and other components testing preparation **is in final stage** including alignments with Regional implementation projects (IDA RIPs).
- The conceptual test in XBID identified a performance impact which will be resolved with changes discussed in relation to CPM. Two phases of Performance tests in EUPHEMIA are completed – the results are positive. Discussion on the **set of products to be used for go-live** is at the mature state (additional EUPHEMIA performance test phase is about to be started)
 - Simple orders of only one time resolution will be allowed in each BZ for IDAs Go-Live (see following slide with details on MTU applicable to BZ and borders)
 - Additional order types to be supported as of Go-Live by NEMOs are simple block order and Merit Order (PUN excluded)
 - Order types to be supported upon NEMO individual readiness and subject to possible restrictions which may result from upcoming performance test phase are Linked block order, Exclusive group block order, Scalable complex orders
- IDA RIPs are established including IDA RIPs reporting towards the central project. IDA RIPs have been optimized to achieve better harmonization and efficiency. Earlier challenges reported by IDA RIPs were addressed in the latest version of the IDA testing timeline

7. Status on R&D changes (2/2)

Intraday Auctions (IDAs)

Go-Live assumption Q2 2024



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

note: import/export areas not considered here

8. SIDC operation

The latest **operational data** covering December 2022 clearly confirm the trend of recent months/years of a constant growth.

These December data set new monthly records for order transactions:

- more than 9,78 million trades (previously reported peak: 8,7 million trades in July)
- 180 million order transactions (previously reported peak: 154,3 million order transactions in September).
- A new daily record of 6,83 million order transactions was achieved on 13 December.

Note that there are going to be new system boundaries in place as of 19 January 2023

