

# INSIGHTS TO THE DAY AHEAD MARKET COUPLING PROJECTS

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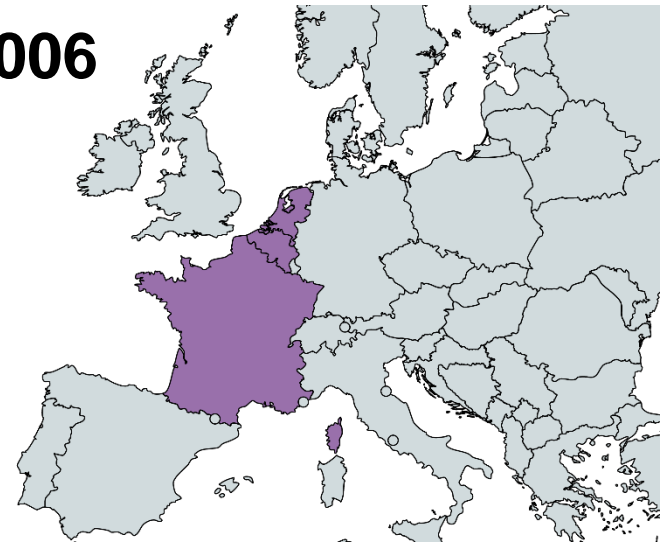
REVIEW OF DAY AHEAD MARKET COUPLINGS

ONGOING MARKET COUPLINGS

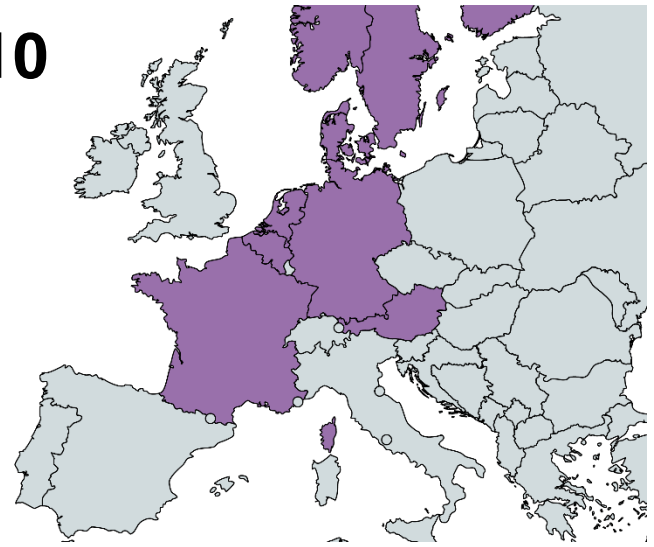
BENEFITS

# PROGRESS OF MARKET COUPLINGS IN EUROPE (DAY-AHEAD)

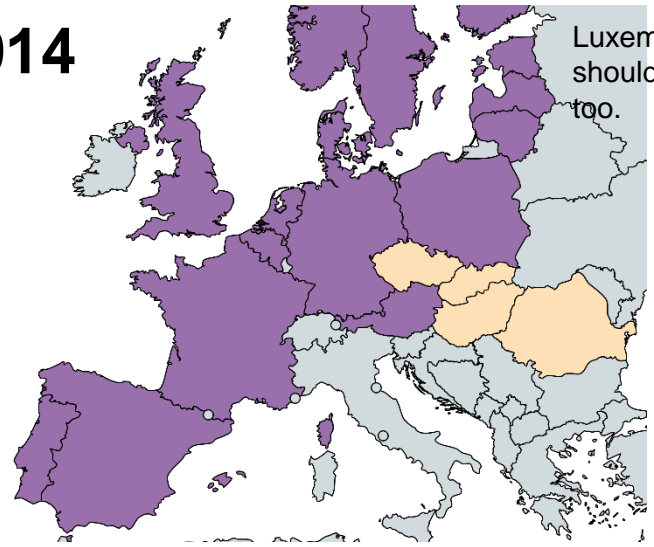
**2006**



**2010**

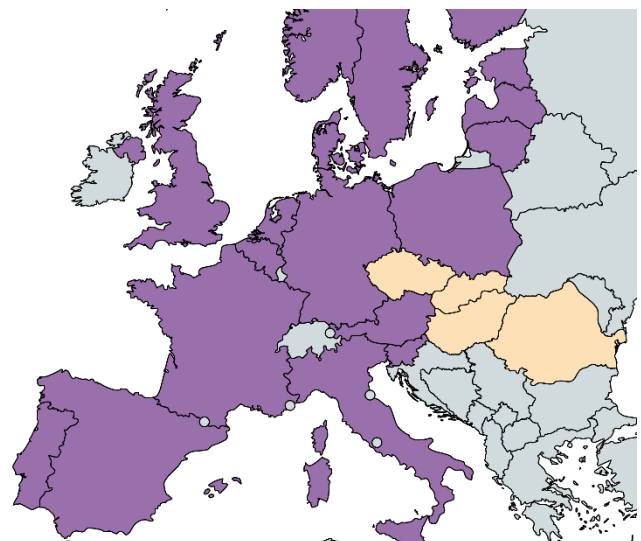


**2014**

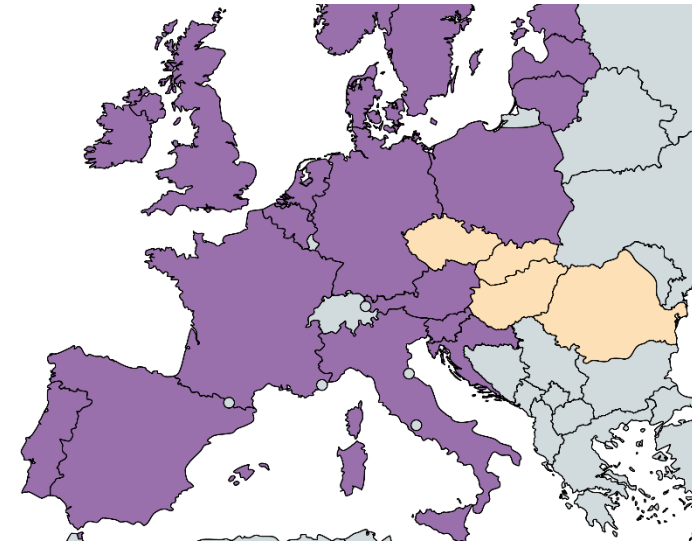


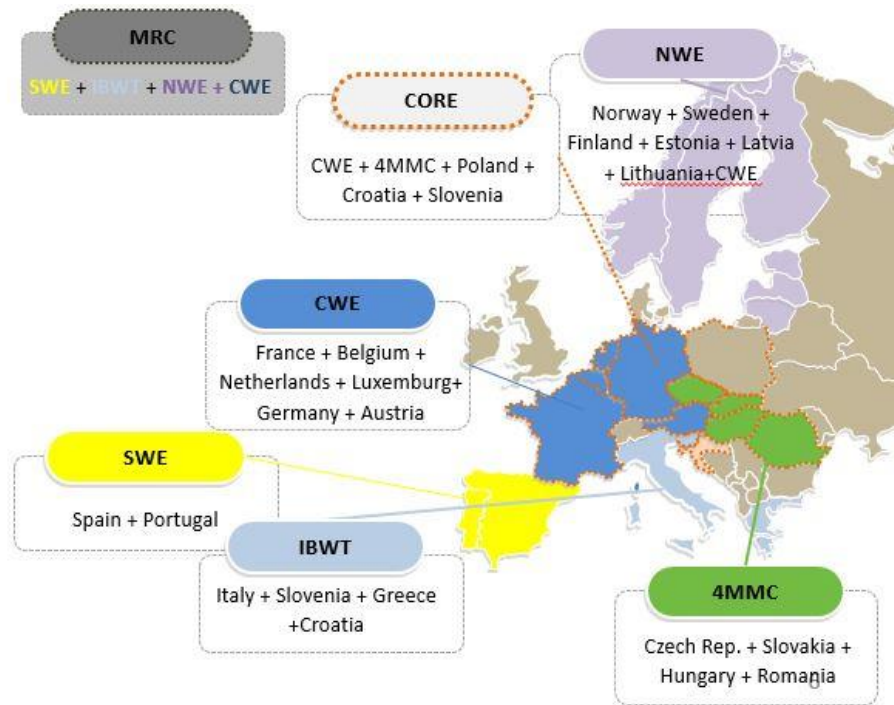
Luxemburg should be lilac too.

**2015**



**2018**





In these maps we can see the progress of the day-ahead market couplings. It is started in 2006 with France, Belgium and Netherlands. The next major milestone was in 2014. This was the launch of the North-Western Europe (NWE) Price Coupling operating under a common day-ahead power price calculation using the PCR – the Price Coupling of Regions - solution. The same solution was also used at the same time in the South-Western Europe region in a common synchronised mode. The first go-live of this coupling included the following countries: Belgium, Denmark, Estonia, Finland, France, Germany/Austria, Great Britain, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Sweden, Portugal and Spain. Also In November the 4M MC( Czech Republic, Hungary, Romania and Slovakia) went live using the PCR solution. By the end of 2020, the MRC region coupling shall be extended to Greece. And also the 4M MC will be coupled to this region, by which we are aiming the **SDAC** which was defined in the CACM.

Lower price  
Social welfare  
Safety

**The aim of Single Day-ahead Coupling (SDAC)** is to create a single European cross zonal day-ahead electricity market. An integrated day-ahead market will increase the overall efficiency of trading

- by promoting effective competition,
- increasing liquidity and
- enabling a more efficient utilisation of the generation resources across Europe.

SDAC allocates scarce cross-border transmission capacity in the most efficient way by coupling wholesale electricity markets from different regions through a common algorithm, simultaneously taking into account cross-border transmission constraints thereby maximising social welfare.

SDAC is an initiative between the Nominated Electricity Market Operators (NEMOs) and Transmission System Operators (TSOs) which – *in the framework of CACM* ( The European Commission Regulation on Capacity Allocation and Congestion Management ) , *implementation* – enables cross-border trading across Europe via implicit auctions for delivery of power for the following day.

SDAC relies on the Price Coupling of Regions (PCR) solution developed by a group of power exchanges.

At this stage, the SDAC is in an interim phase during which two parallel market couplings co-exist, i.e., the Multi Regional Coupling (MRC) and the 4M Market Coupling (4M MC). These couplings are considered on an equal basis as jointly forming, for this interim period, the Single Day-Ahead Coupling in implementation of CACM. In the enduring stage MRC and 4M MC shall be coupled.

**Before we move on to the next point I'd like to recap the main points we mentioned here.**

The aim of the MC is to maximize economic welfare to all players.

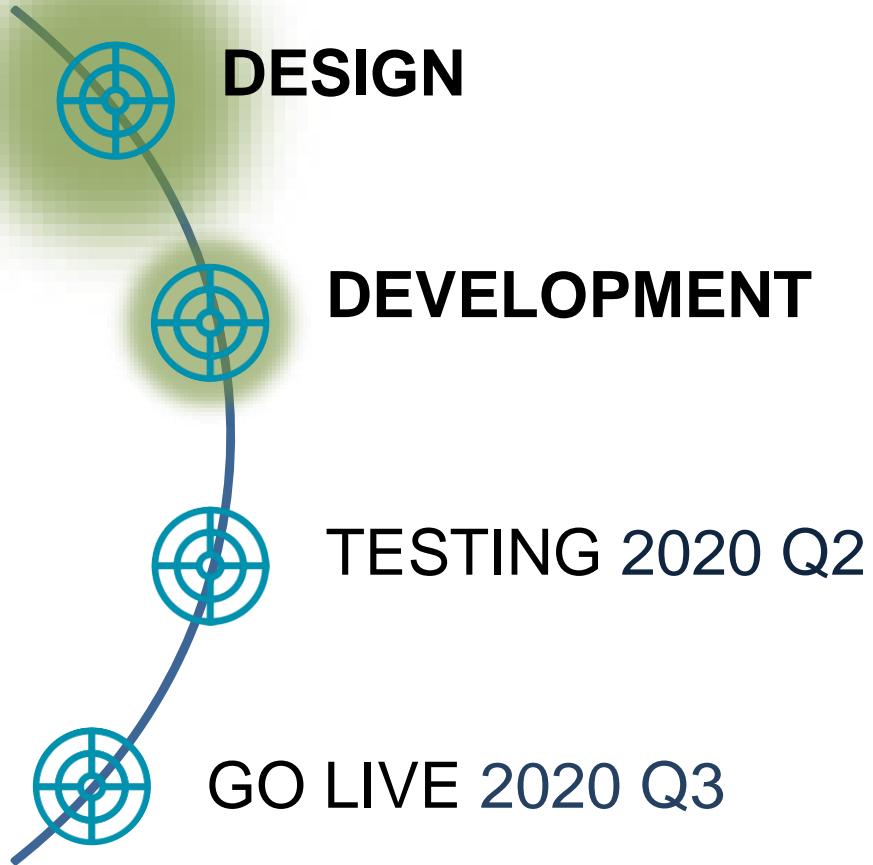
**SDAC** will create a single European cross zonal day-ahead electricity market.

An integrated day-ahead market will **increase** the overall efficiency of trading by promoting **effective competition, increasing liquidity and enabling a more efficient utilisation of the generation resources** across Europe.

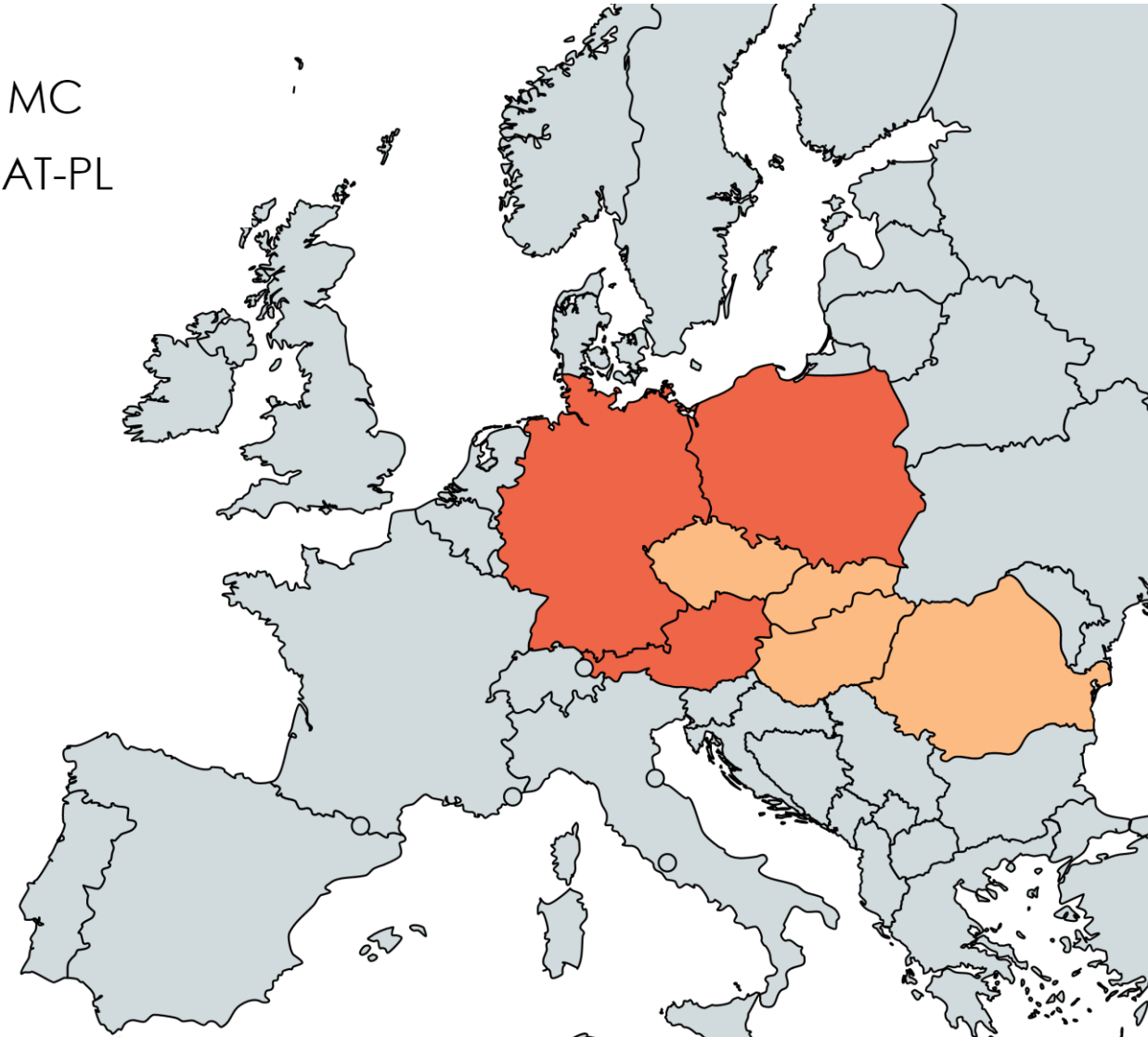
An integrated day-ahead market will **decrease** time and administrative burden, so traders can save time.

# INTERIM COUPLING PROJECT

Continuous control and approval by the DE-AT-POL-4M MC NRAs



- 4M MC
- DE-AT-PL



Participating TSOs: 50Hertz, APG, CEPS, MAVIR, PSE, SEPS, TenneT, Transelectrica  
Participating NEMOs: EMCO, EPEX, EXAA, HUPX, OKTE, OPCOM, OTE, TGE

In the progress of dam market coupling it is foreseen that the next step will include coupling the 4M MC, Poland and the MRC by introducing NTC-based implicit allocation on 6 borders (PL-DE, PL-CZ, PL-SK, CZ-DE, CZ-AT, and HU-AT).

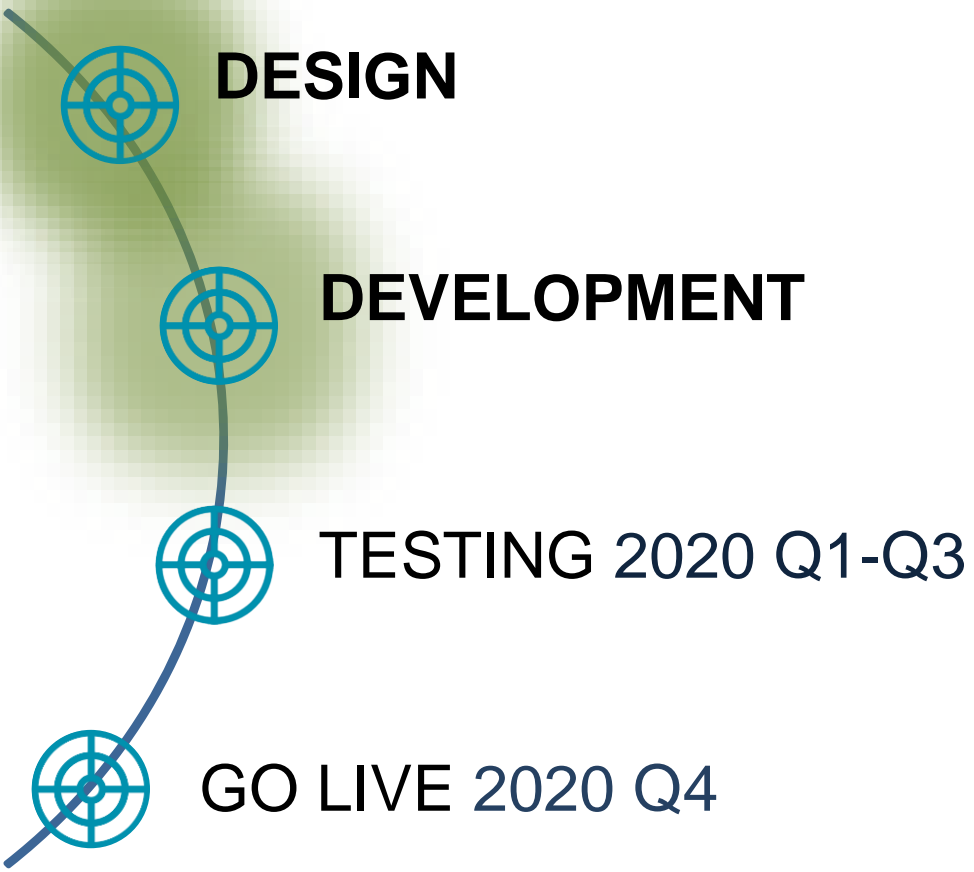
The Interim Coupling project has been initiated on the request of the concerned NRAs at the beginning of this year, as an interim step until the go-live of the Core FB MC project.




The design phase of the project has been finalized with the elaboration of the High-level Market Design. At the moment we are in the middle of the development phase. The current planning envisages the go-live date in Q3 2020, so before that, in next summer a big and complex testing phase is expected with your kindly cooperation.

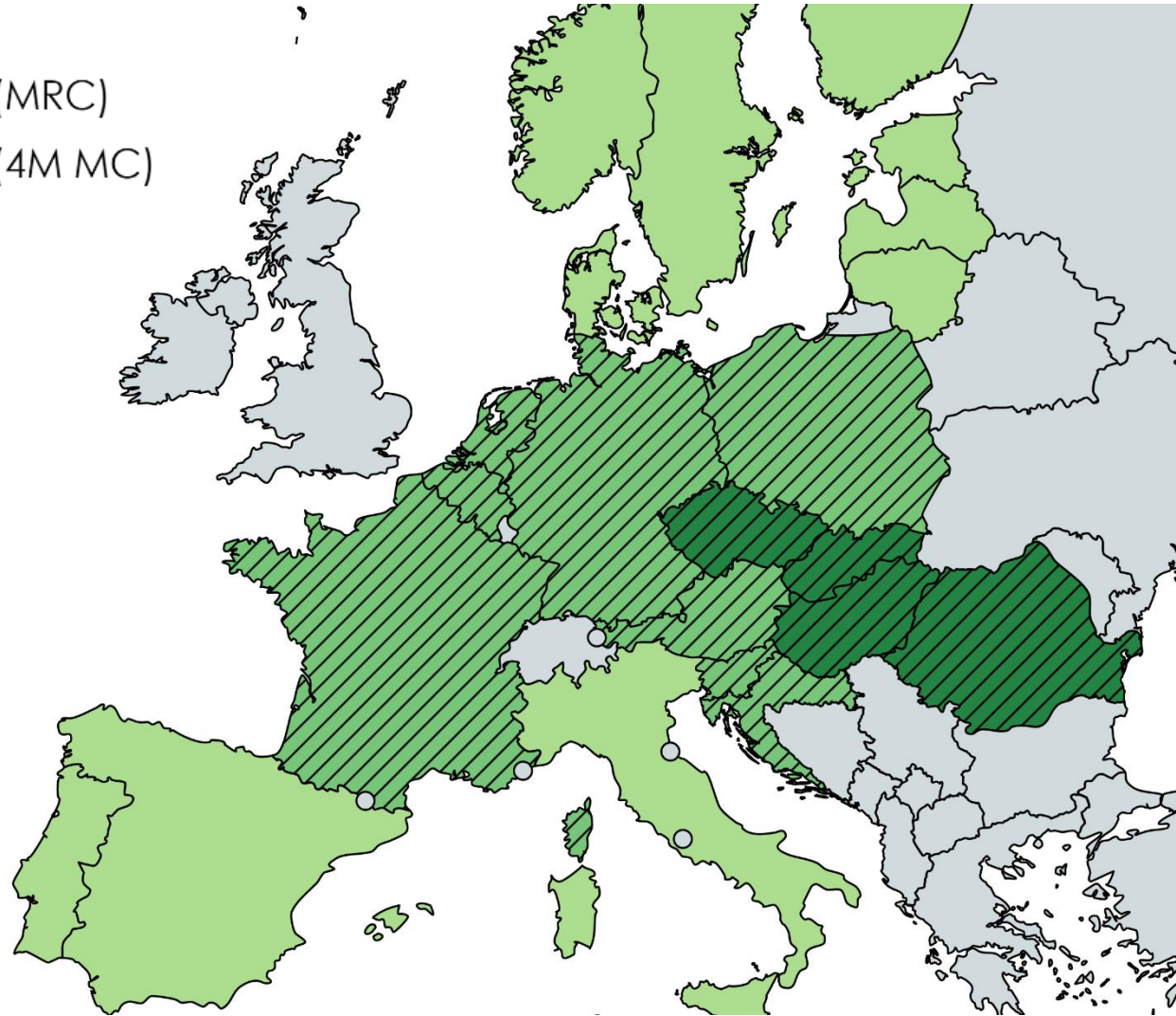
The relationship between the implementation timeline of the Interim Coupling Project and the Core FB MC project needs to be continuously monitored by all parties, NRAs. So it is very important that the 2 projects do not cause any delay in each other.



# CORE FLOW BASED MARKET COUPLING



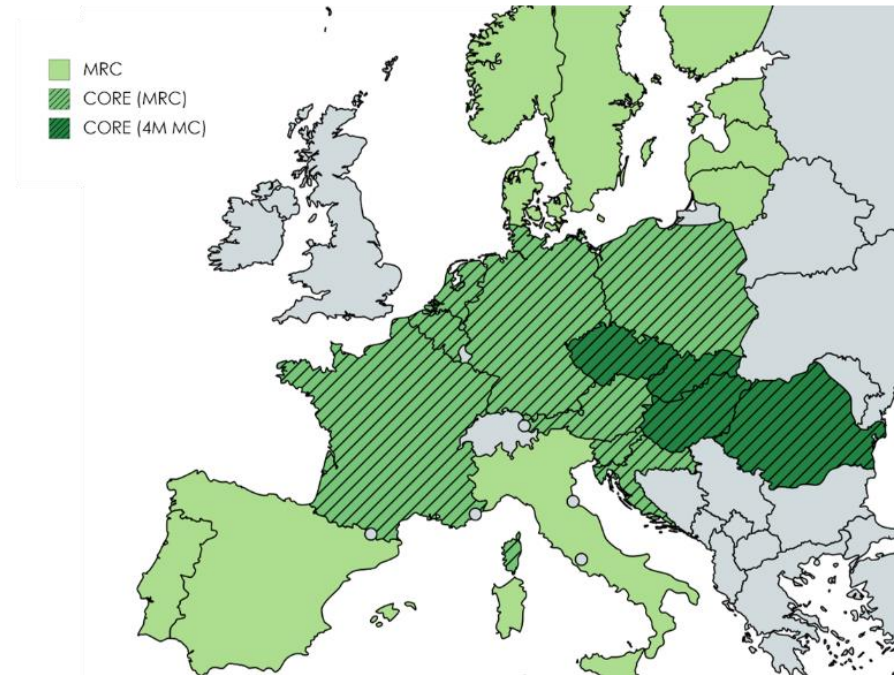
-  MRC
-  CORE (MRC)
-  CORE (4M MC)





Continuous control and approval by the DE-AT-POL-4M MC NRAs

-  DESIGN
-  DEVELOPMENT
-  TESTING 2020 Q1-Q3
-  GO LIVE 2020 Q4



The goal is to increase the liquidity with

- the introduction of the implicit capacity calculation allocation
- more borders than in 4M MC
- new capacity calculation method

**The aim is to establish the single flow based day ahead coupling**

The European Commission Regulation on Capacity Allocation and Congestion Management (CACM) specifies the implementation of Flow-Based Market Coupling (FBMC) for day-ahead electricity trading in the Core Capacity Calculation Region (CCR) comprising : Austria, Belgium, Croatia, the Czech Republic, France, Germany, Hungary, Luxembourg, the Netherlands, Poland, Romania, Slovakia and Slovenia.

The partners of the Core FBMC project are to establish the coupling of all Core CCR borders by means of a Flow-Based Capacity Calculation Methodology (CCM) developed in accordance with the CACM Regulation. The market design for the FBMC implementation has now been finalised and FBMC is currently applied within the Single Day-Ahead Coupling (SDAC) in Central Western Europe (Austria, Belgium, France, Germany, Luxembourg and the Netherlands).

Currently the project is in the development phase, the beginning of testing phase is foreseen in the first part of next year and the expected go live is in Q4 2020.

**What is very significant is that this MC will be flow-based which leads more efficient use of transmission capacity by better taking into account the effect of trade on the network.**

Today our object **is not** explain the difference between the NTC based and flow based capacity calculation. It is very complex topic and it would deserve a whole workshop alone presented by experts from a TSO. What we just want to emphasize here that the Flow-based market coupling leads to a more efficient use of generation and transmission resources. While under ATC, TSOs themselves determine capacity values based on forecasts and historical data, the FB mechanism allows TSOs only to derive the impact that trade will have in terms of physical flows on the network. Subsequently, it is the market who decides how transmission capacity is allocated over market parties. More capacity is offered to the market under FB market coupling, resulting in an overall welfare gain and increased price convergence.



## INCREASE:

- LIQUIDITY
- SOCIAL WELFARE
- TRANSPARANCY
- EFFICANCY

- OPTIMAL USE OF ELECTRICITY NETWORK CONSTRAINTS
- IMPLICIT TRADING REMOVES UNNECESSARY RISKS OF TRADING CROSS BORDER CAPACITY AND ELECTRICITY SEPARATELY

Why market coupling good for you

- **MORE LIQUID MARKET**
- **DECREASE TIME AND ADMINISTRATIVE BURDEN**
- **INCREASE MARKET EFFICIENCY**

**The market couplings both in the intraday and in the day-ahead market will give us the opportunity to be part of the European energy trading and liquidity.**



THANK YOU FOR LISTENING



**katafehér**

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