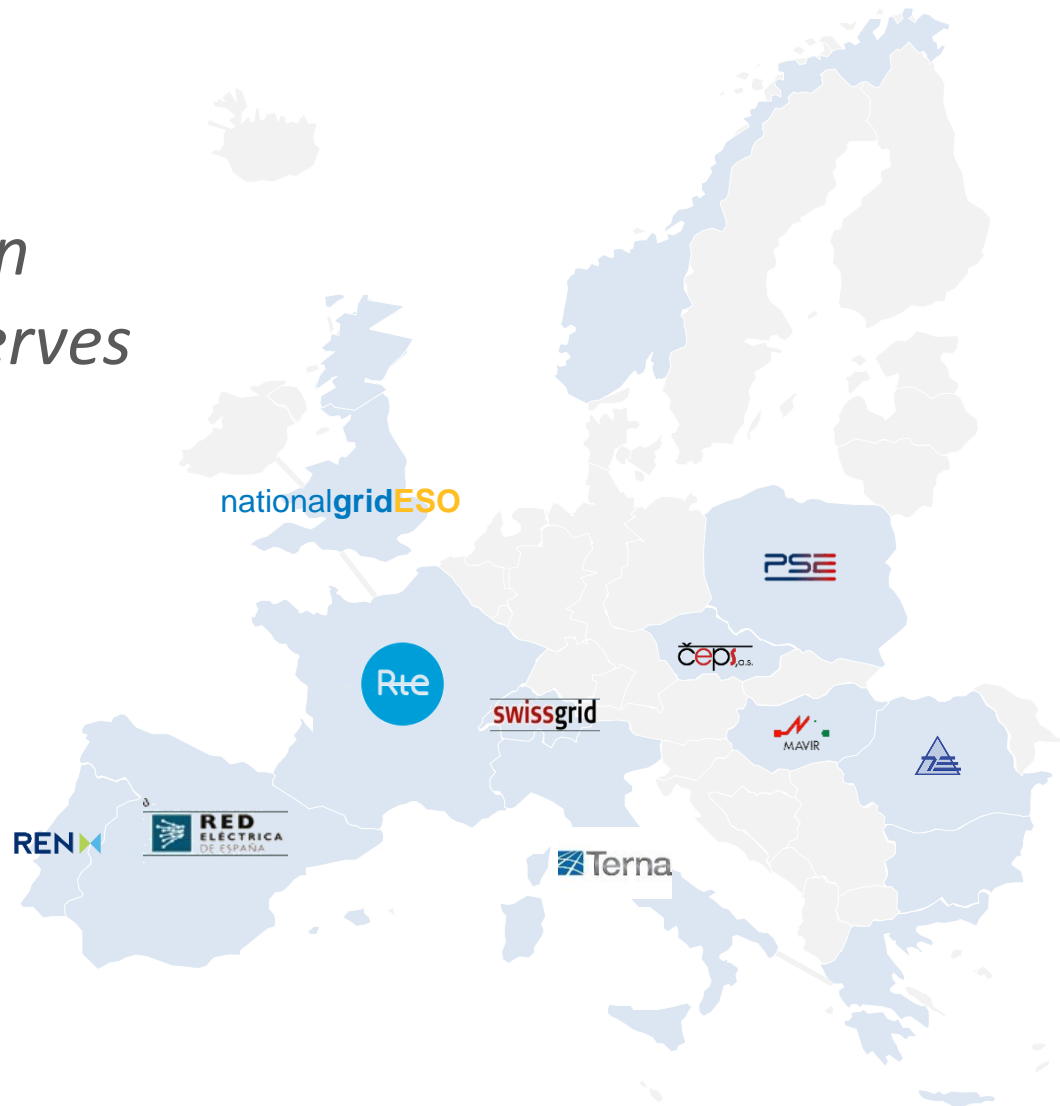


TERRE

Trans European Replacement Reserves Exchange

EBSG

21st April 2021



Agenda

- 1. Introduction**
- 2. RR process & LIBRA platform**
- 3. RR Implementation Framework amendment**
- 4. KPIs**
- 5. AOF updates**

1. Introduction

TERRE project - Participating TSOs

TERRE Members

■ Region 1

- France (RTE)
- Great Britain (NG ESO)
- Italy (TERNA)
- Portugal (REN)
- Spain (REE)
- Switzerland (SG)

■ Region 2

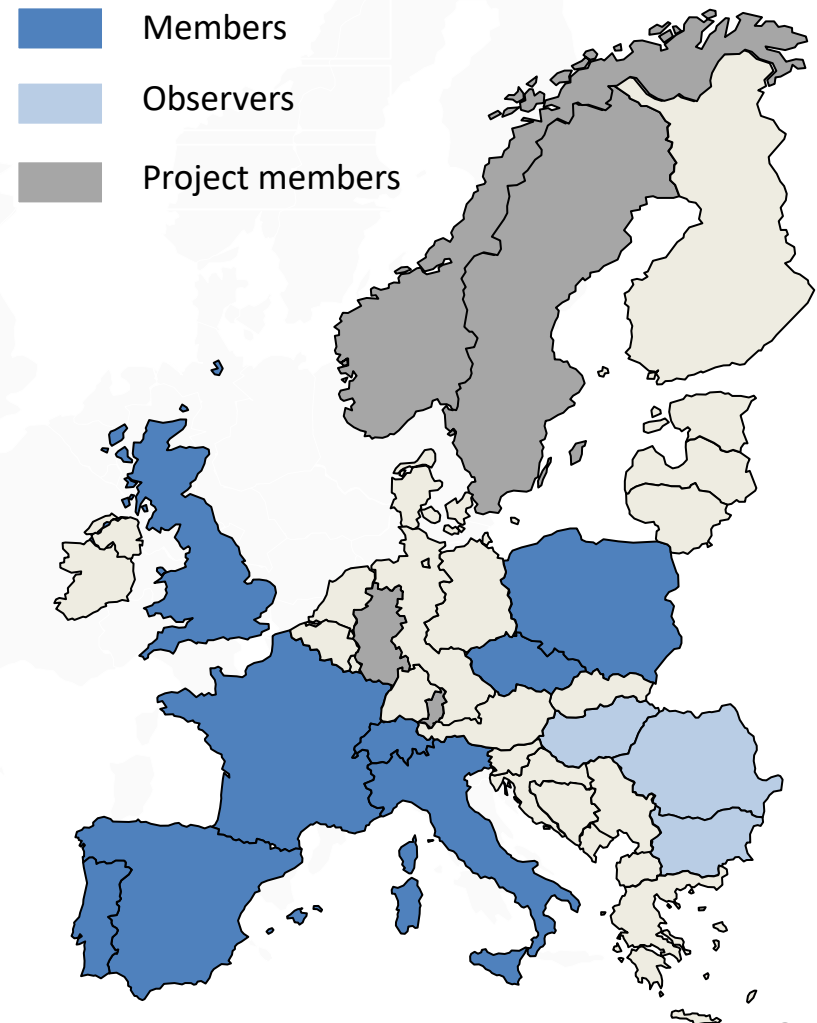
- Czech Republic (CEPS)
- Poland (PSE)

■ Observers

- Bulgaria (ESO)
- Hungary (MAVIR)
- Romania (Transelectrica)

Project Members

- Germany (Amprion)
- Norway (Statnett) & Sweden (Svk)

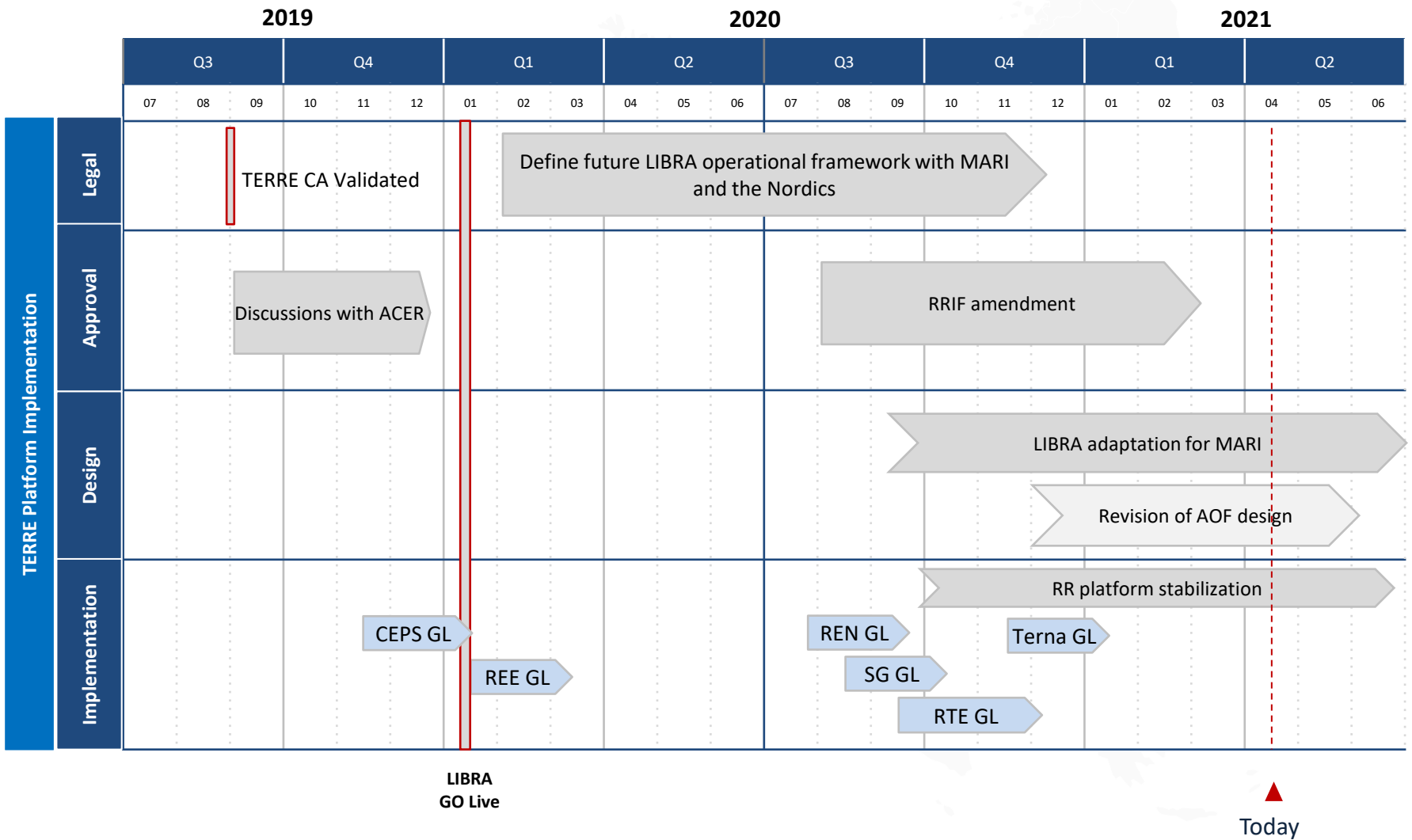


1. Introduction

Accession timeline – past and foreseen

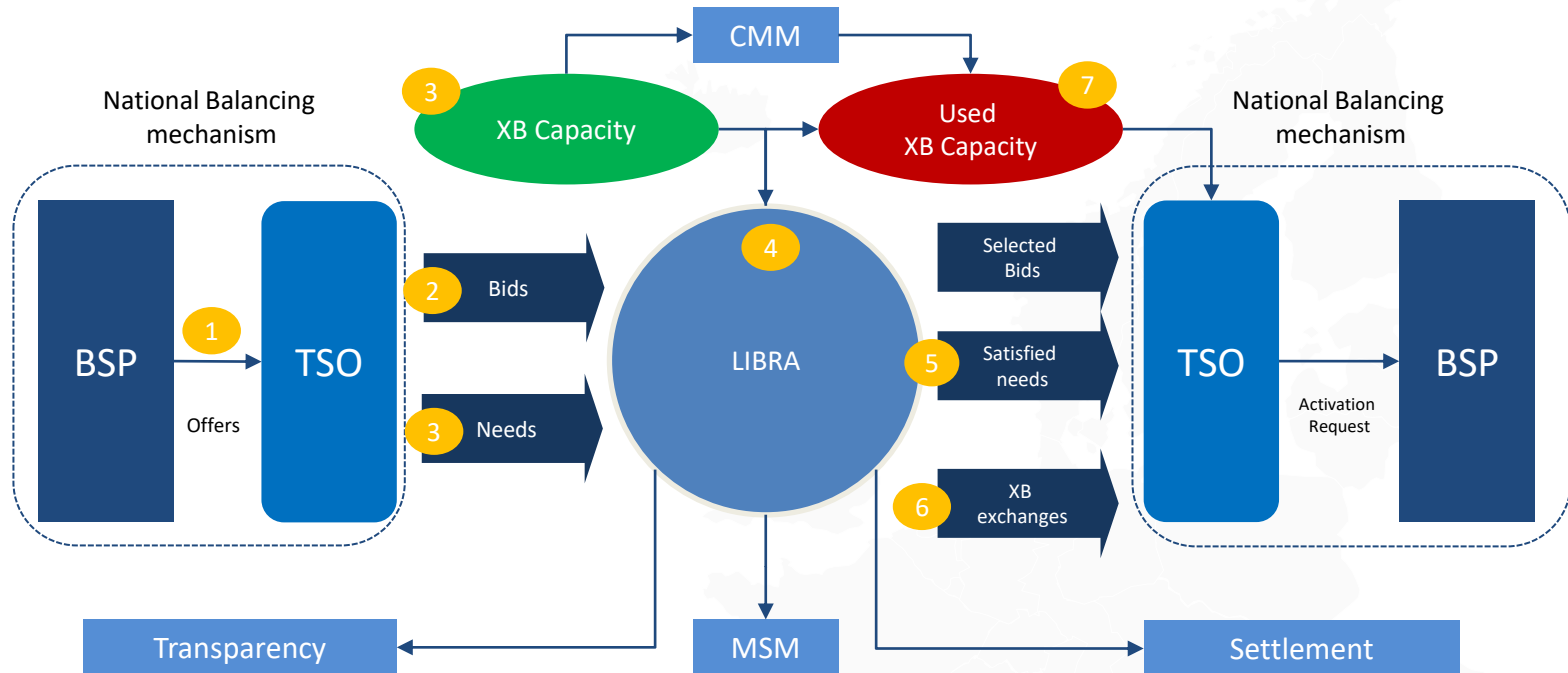
Country	TSO	Date of accession
Czech Republic	ČEPS a.s.	6 January 2020
Spain	REE - Red Eléctrica de España S.A.U	3 March 2020
Portugal	REN – Rede Eléctrica Nacional, S.A	29 September 2020
Switzerland	Swissgrid AG	8 October 2020
France	RTE - Réseau de Transport d'Electricité	2 December 2020
Italy	Terna - Rete Elettrica Nazionale SpA	13 January 2021
Poland	PSE - Polskie Sieci Elektroenergetyczne S.A.	Q1/Q2 2023
Great Britain	National Grid Electricity System Operator Ltd	<i>On hold</i>

High level planning



2. RR process and LIBRA platform

RR process overview

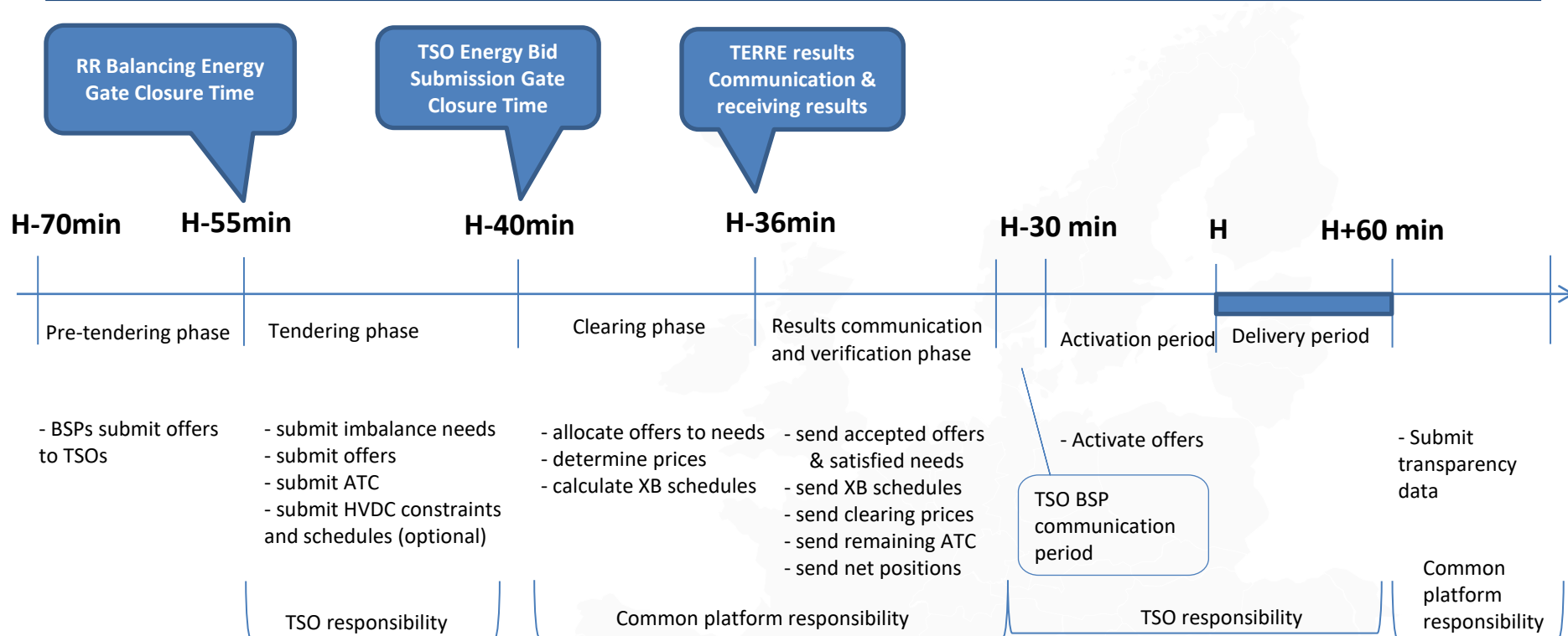


1. TSO receive bids from BSPs from their local balancing area/bidding zone.
2. TSOs put the valid RR bids on the LIBRA platform
3. TSOs send their needs and ATC values to the platform.
4. Platform runs the algorithm with offers and needs.
5. Communication of accepted offers, satisfied needs and marginal prices
6. Calculation of the bilateral exchanges between balancing areas and TSO-TSO settlement.
7. Residual ATC and net positions are communicated to TSOs

CMM: Capacity Management Module
MSM: Market Supervision Module

2. RR process and LIBRA platform

Timeline

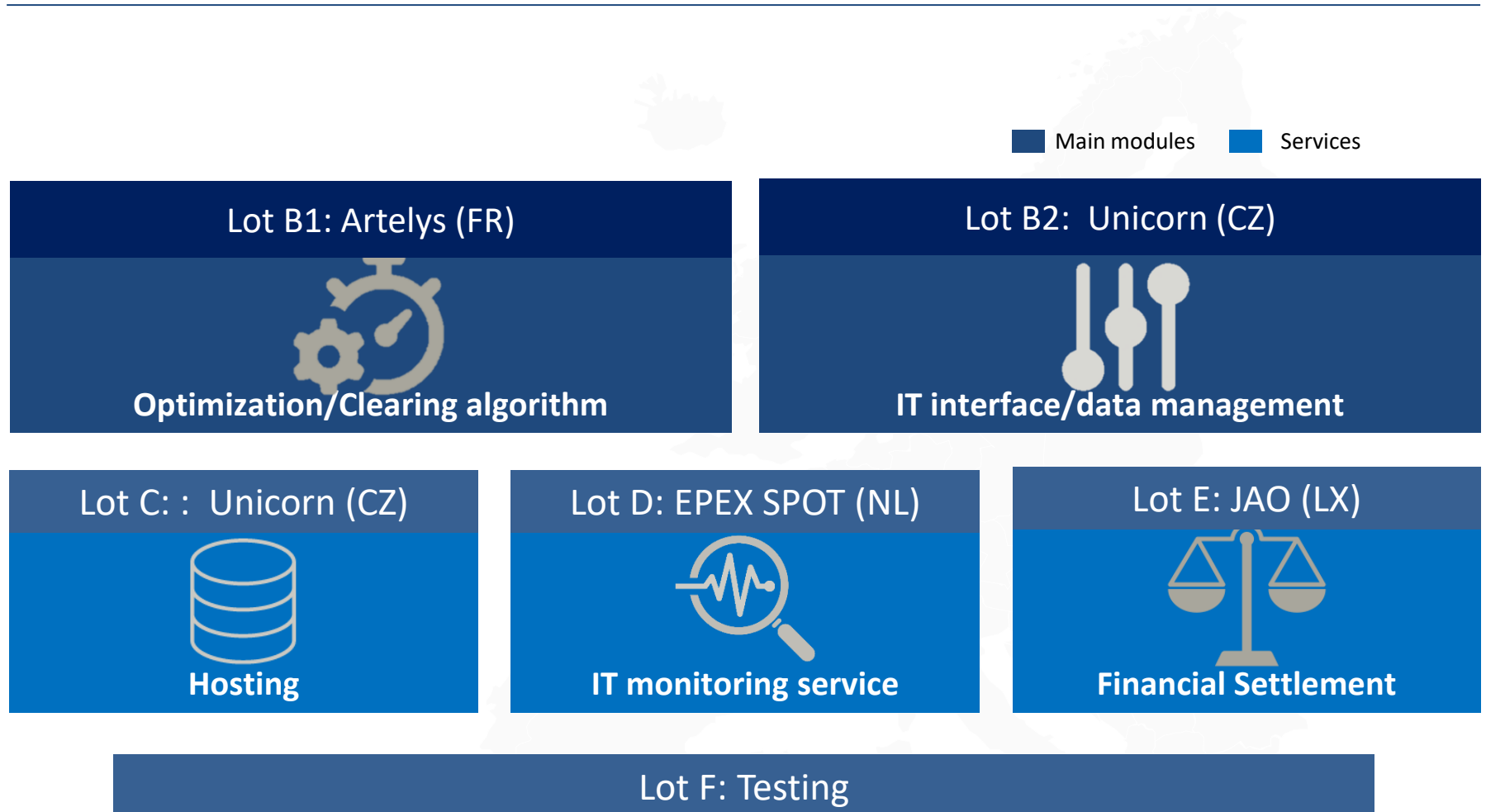


RR process consists of the following phases:

- pre-tendering phase
- tendering phase
- clearing phase
- results communication and verification phase
- activation phase
- delivery phase

2. RR process and LIBRA platform

LIBRA platform overview



3. RR Implementation Framework

Highlights

The RRIF was validated by the NRAs on 14 January 2019 – [link](#)

After the approval of the TSO-TSO settlement proposal and the pricing proposal, the TSOs representatives of the TERRE project have carried out an amendment of the RRIF to reflect the following:

Changes submitted to Public Consultation in October 2020

- **Designation entity - Art. 10:** Amendment to enable all TSOs to be regarded as operators of the platform
- **Interconnection Controllability – Art 3(b) & 11(3):** The activation and settlement of bids for satisfying the controllability of interconnection will be compliant with the latest versions of the Pricing Proposal and the TSO-TSO Settlement Proposal validated by ACER, as of their entry into force in mid-2022.
- **Daily clearings – Article 11(5a):** added mention that the reduction of cross-border scheduling steps to less than 60 minute it is still subject for possible derogation
- **Counter activations - Art 13(5):** Postponement of the date set for the minimisation of the counter activations

Additional changes were included based on the feedback received during Public Consultation and by NRAs

Changes proposed by NRAs

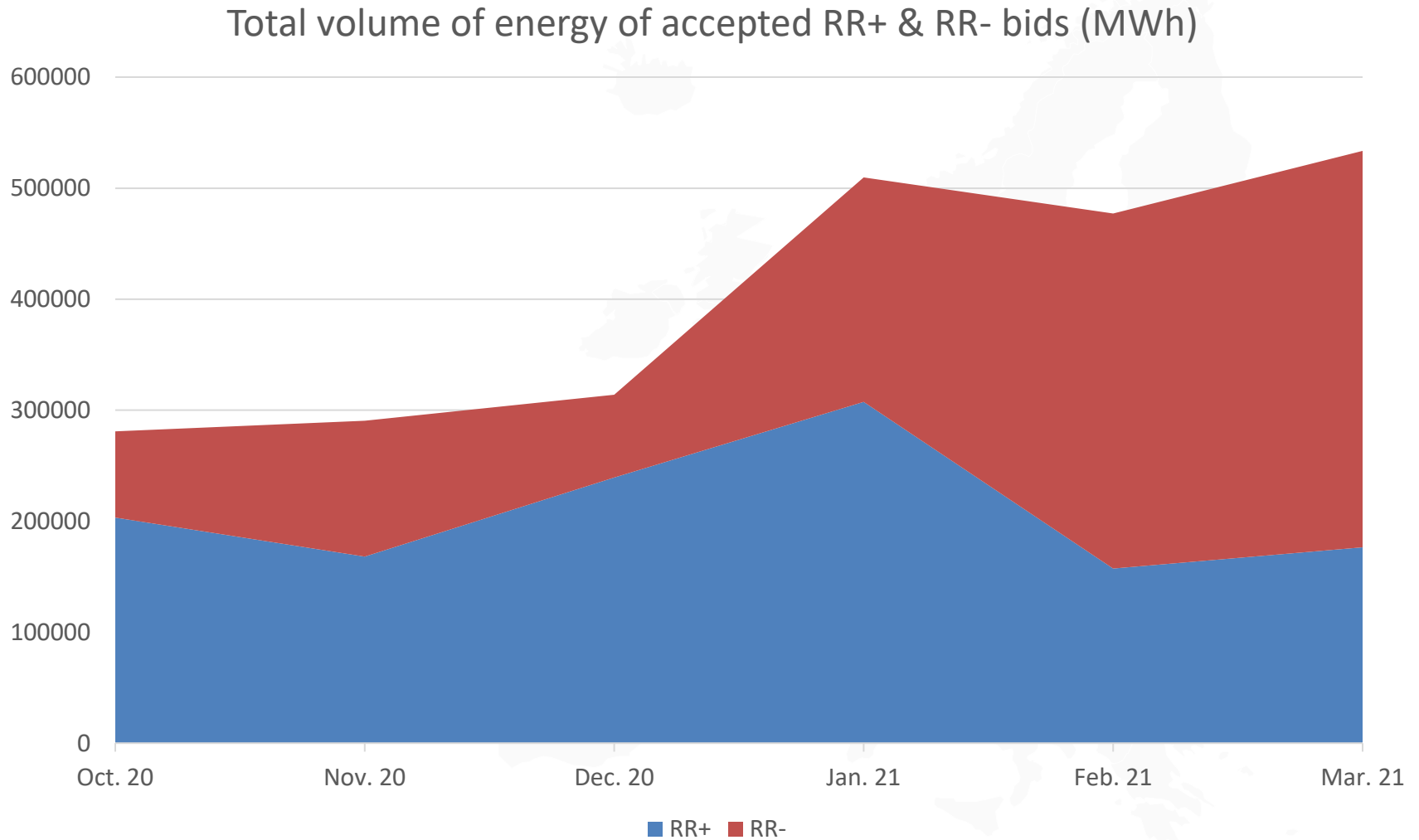
- **List of participating TSOs - Article 1:** TSOs no longer explicitly mentioned
- **Rules for governance and operation of the RR Platform and designation of the entity - Art.10 and Annex:** clarifications and content moved to Annex

Changes following feedback received during Public Consultation

- **High level design of the RR platform (DFR) - Art.3(b):** wording made clearer

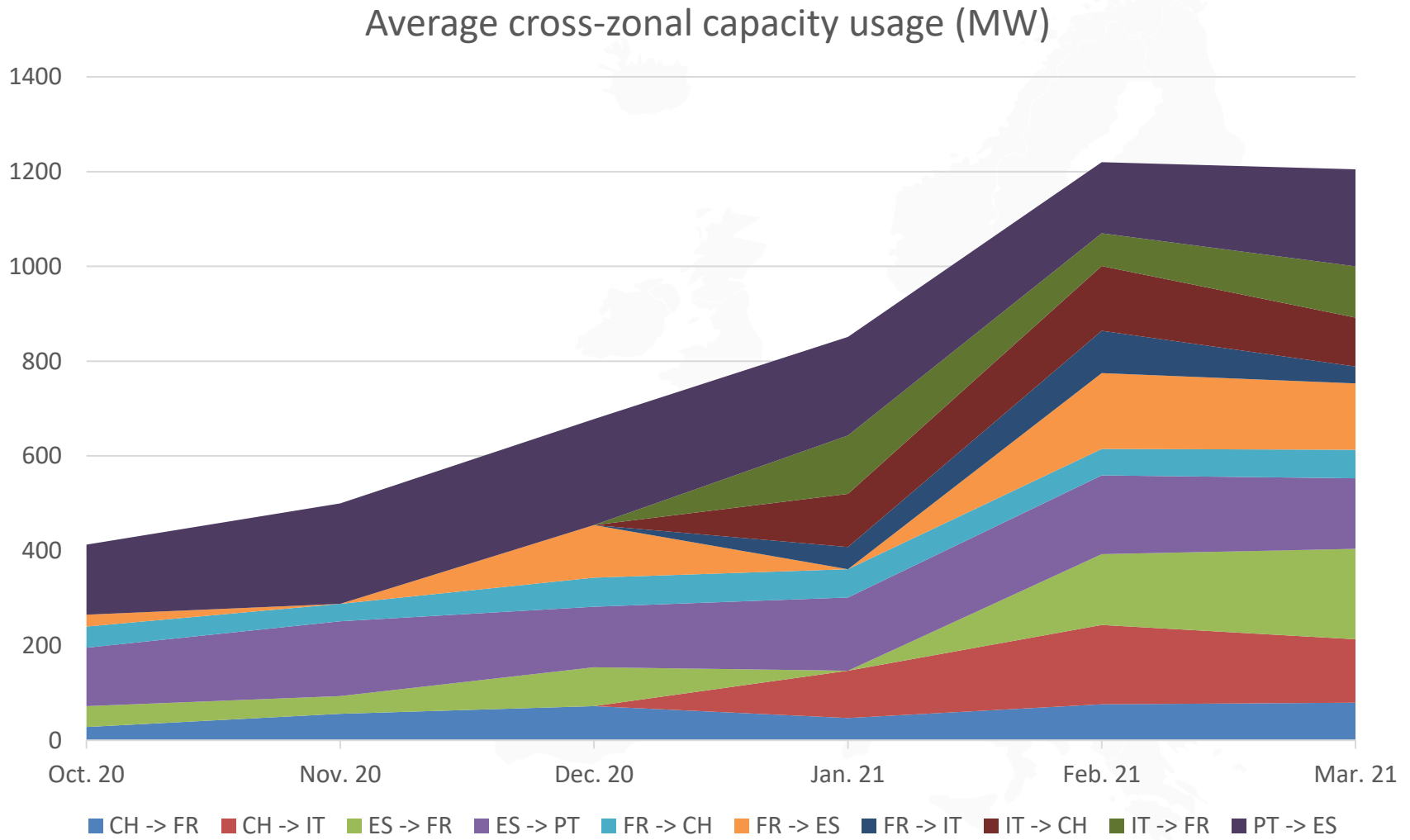
4. KPIs

Volume of accepted bids



4. KPIs

Usage of Cross-zonal capacity



5. Improvements after GoLive of TSOs

Activation Optimization Function updates

Analysis of the current situation

- LIBRA clearing design «philosophy»: Fully divisible bids (FDB) are key market product
- But Fully divisible bids not yet used in every market area and there are many multi-BTUs bids

Recent LOM Updates

- Initially: Only single-BTU bids were considered for URB minimization and bounds from UAB/URB rules
- The update implemented considers also multi-BTU bids in the definition of price targets and minimization of URBs

Discussed future LOM Updated

- **Market clearing price determination:** Ongoing discussions to further adapt the algorithm to the current market for situations with congestions and indivisible bids. Today's results are compliant with the market rules but can create a lot of URBs
- **Single clearing** in case of usage of desired flow range. Today the result is a merge of price from the unconstrained solution and quantities from the constrained solution. Bids may be activated pay-as-bid with high level of uplift costs and complex understanding of the market outcomes
- **Reinforcement of inelastic need satisfaction:** Inelastic need check to ensure that the inelastic need satisfaction is better in the coupled solution.

The TERRE project presented the same points on a stakeholder workshop that took place 16th March 2021.



Thank you for your participation