

MARI

Manually Activated Reserves Initiative

Project in a Nutshell and Accession Conditions

BSG Meeting
07/06/2017



Project Description

- **19 TSOs** founded an **mFRR cooperation** to design, implement and operate a platform for exchange of energy from manual frequency restoration reserves (mFRR) in 2017 according to the provisions set in the regulation guideline on electricity balancing (GLEB)
- The Manual Activated Reserve Initiative aims at designing, implementing and operating the mFRR platform, which should become the **European solution**
- The initiative **does not foresee** to tackle the questions concerning imbalance settlement period, main principles of imbalance settlement price, balancing strategy, usage of replacement reserve and intraday gate closure times

Involved Parties – TSOs only

Members – 19 TSOs from 16 countries

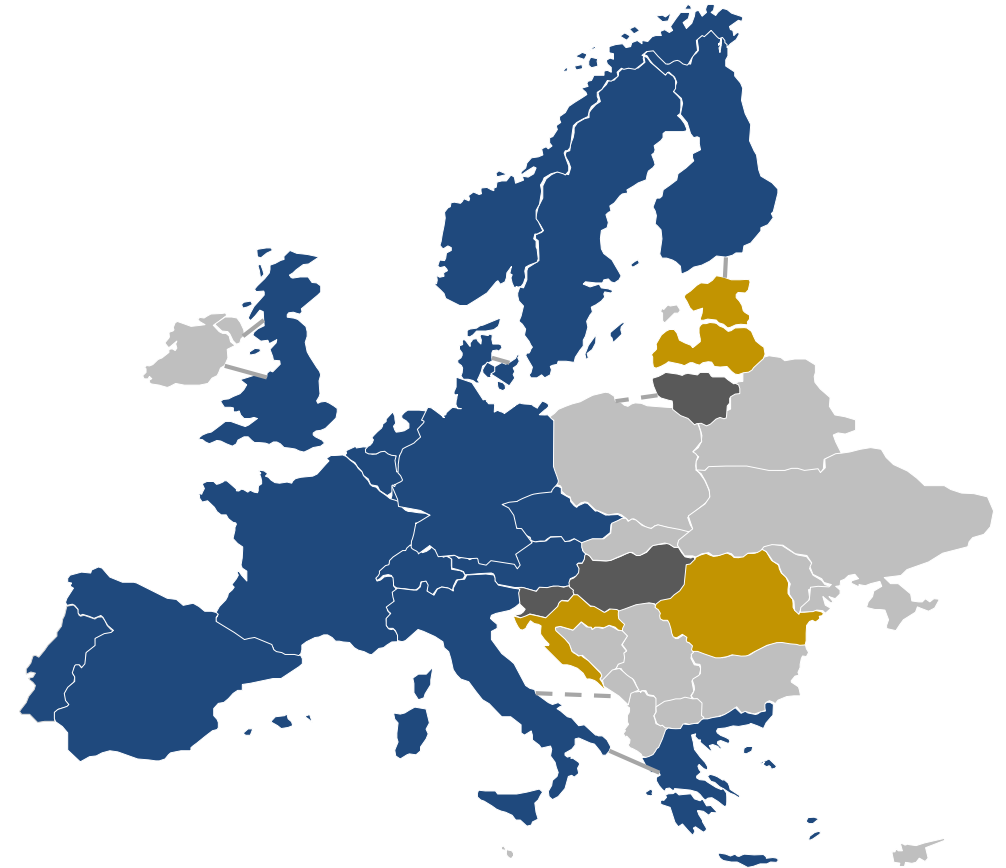
FINLAND	FINGRID
SWEDEN	SVENSKA KRAFTNÄT Svenska Kraftnät
NORWAY	Statnett
DENMARK	ENERGINET
GERMANY	50hertz amprion Tennet TRANSNET BW
GREAT BRITAIN	nationalgrid
NETHERLANDS	Tennet TenneT
BELGIUM	elias
FRANCE	Rte
CZECH REPUBLIC	čepi.s
SWITZERLAND	swissgrid
AUSTRIA	APG
PORTUGAL	REN
SPAIN	RED ELÉCTRICA DE ESPAÑA
ITALY	Terna Rete Italia
GREECE	ΑΔΜΗΕ

Observers – 3 countries (3 TSOs)

LITHUANIA	Litgrid
HUNGARY	MAVIR
SLOVENIA	ELES

4 countries (4 TSOs) in the process of becoming observers

LATVIA	AST
ESTONIA	elering
ROMANIA	Transelectrica
CROATIA	HOPS



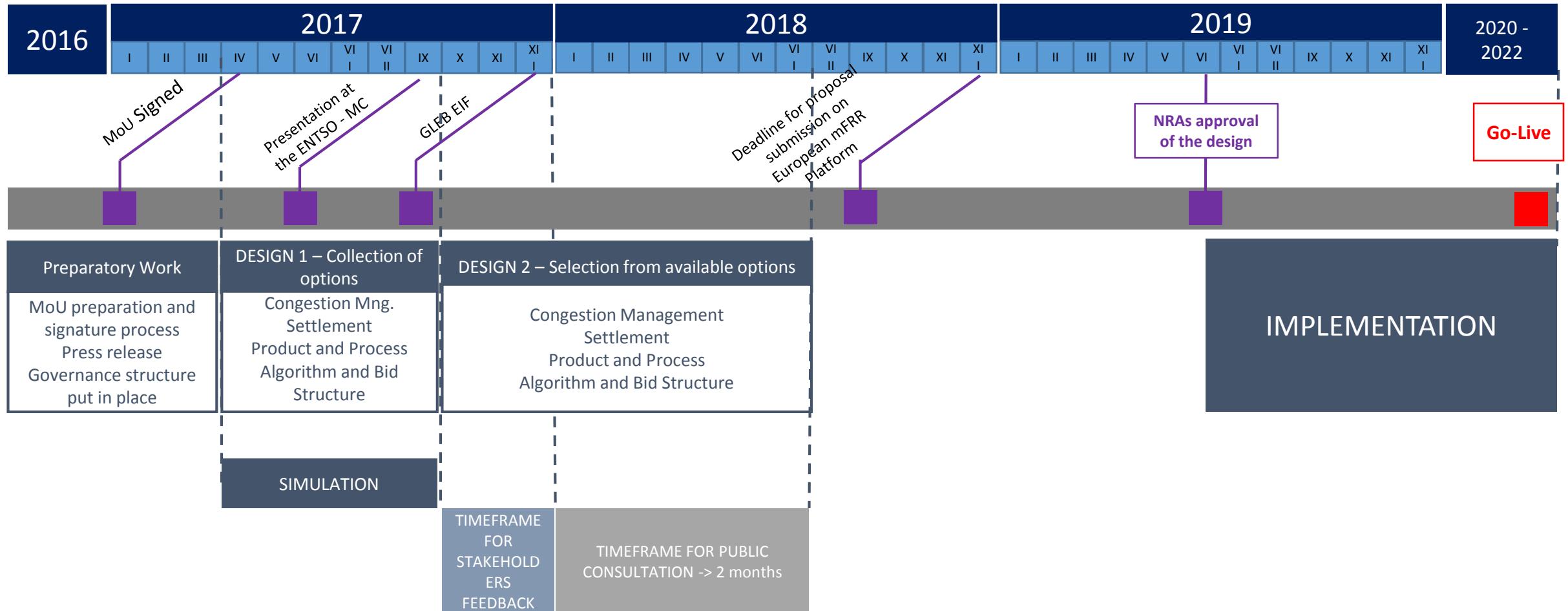
Project Background

MARI project	Other/Previous Initiatives of the involved TSOs	Legal Background
<ul style="list-style-type: none"> ○ The goal is to create an European platform for mFRR ○ New project independent from the existing initiatives ○ TSOs of the cooperation started working on the principles of an mFRR platform already in 2016 ○ 5 April 2017 TSOs signed Memorandum of Understanding, which outlines the main design features of the project as well as the governance principles 	<ul style="list-style-type: none"> ○ Common Nordic mFRR market in operation ○ Amprion/RTE – proposal for the design of an mFRR market DE/FR ○ Explore – proposal for the design of an mFRR market ○ AT/DE project for the implementation of an mFRR market ○ mFRR discussions in the TERRE framework 	<ul style="list-style-type: none"> ○ Guideline on electricity balancing (“GLEB”) ○ Guideline on transmission system operation (“GLSO”) ○ Regulation 1222/2015, (“CACM”) ○ Regulation 1227/2011(“REMIT”) ○ Regulation (EC) 714/2009

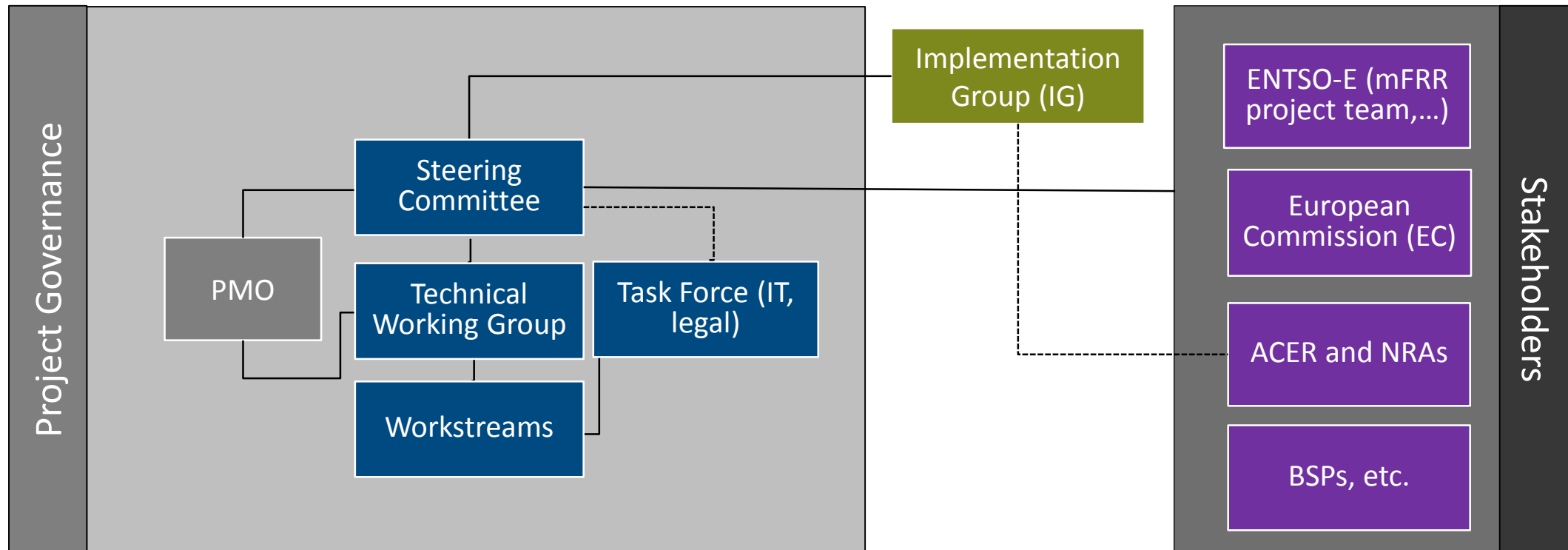
Main Aspects of the Platform Design

PLATFORM	SETTLEMENT
<ul style="list-style-type: none"> ○ Facilitates the exchange of standard mFRR balancing energy products as defined by all TSOs in accordance with GLEB. Focuses on enhancing efficiency of balancing within the system security limits ○ Limited impact for the connecting TSOs in case of activation of a local flexibility for another TSO ○ Compliant with the AC and HVDC interconnectors respecting the specific procedures for load flow control on HVDC ○ Calculation and communication time as limited as possible in order to allow TSOs to respect time to restore frequency set forth in GLSO ○ Each TSO remains responsible for collecting mFRR balancing energy bids and issuing mFRR need for each of its area 	<ul style="list-style-type: none"> ○ The TSO-TSO settlement based on cross-border marginal pricing ○ The settlement scheme takes into consideration congestion on relevant borders ○ The initiative should guarantee that each country does not lose from being in the mFRR cooperation compared to being outside of it.
PRODUCT	CONGESTION MANAGEMENT
<ul style="list-style-type: none"> ○ The TSO-TSO physical exchanges based on trapezoid profiles with 10 minutes ramps ○ Allows direct as well as scheduled activation ○ Pre-contracted as well as voluntary bids allowed ○ Pre-contracted bids directly or schedule activated. ○ Optimization of the schedulable products in 1 auction resulting in one marginal price per quarter of hour ○ one independent auction per 15 minutes period taking place about 10 minutes before the beginning of each 15 minutes period. 	<ul style="list-style-type: none"> ○ Respects the information about the location of the balancing energy bids and bilateral capacities or capacity profiles between locations

Project Timeline according to the GLEB



Project Organization and Stakeholders



Project Internal Structure

Governance Body	Governance Level	Membership	Responsibility
Steering Committee	<ul style="list-style-type: none"> Decision making 	<ul style="list-style-type: none"> Each party 1 appointed chairman Members only 	<ul style="list-style-type: none"> Decision taking
Technical Working Group	<ul style="list-style-type: none"> Working and review level 	<ul style="list-style-type: none"> Each party 2 appointed conveners Members and observers 	<ul style="list-style-type: none"> Proposals to SC to the design
Workstreams	<ul style="list-style-type: none"> Working level 	<ul style="list-style-type: none"> Small concentrated groups Members and observers 	<ul style="list-style-type: none"> Proposals for TWG review

Becoming a Member – TSOs only

	Observer	Member	Exit
When	<ul style="list-style-type: none"> Any time 	<ul style="list-style-type: none"> After 3 months of being the observer 	<ul style="list-style-type: none"> Any time
How	<ul style="list-style-type: none"> Request to SC Chairman 	<ul style="list-style-type: none"> Request to SC Chairman 	<ul style="list-style-type: none"> Notification to SC
Approval	<ul style="list-style-type: none"> Steering Committee 	<ul style="list-style-type: none"> Steering Committee 	
Cost Sharing	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Cost sharing of the common cost 	<ul style="list-style-type: none"> Respective share until the delivery of the exit request
Decision making power	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Full 	
Access to meetings and documents	<ul style="list-style-type: none"> Access to all documents and TWG meetings 	<ul style="list-style-type: none"> All meetings and documents 	
Document to be signed	<ul style="list-style-type: none"> NDA 	<ul style="list-style-type: none"> MoU 	

Summary

- **19 European TSOs** decided to jointly design, implement and operate an **mFRR common platform** and integrate their balancing markets according to the agreed Guideline of Electricity Balancing and connected energy market regulation
- The mFRR cooperation aims at becoming the **European platform for the exchange of balancing energy from frequency restoration reserves with manual activation**
- The creation of the mFRR Common Platform is divided into **two steps – design phase and implementation phase**
- **The initiative is open** for new entrants; ie. additional TSOs can be included at any time

Thank you for your attention!

For further details please contact:

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