Rail Baltica

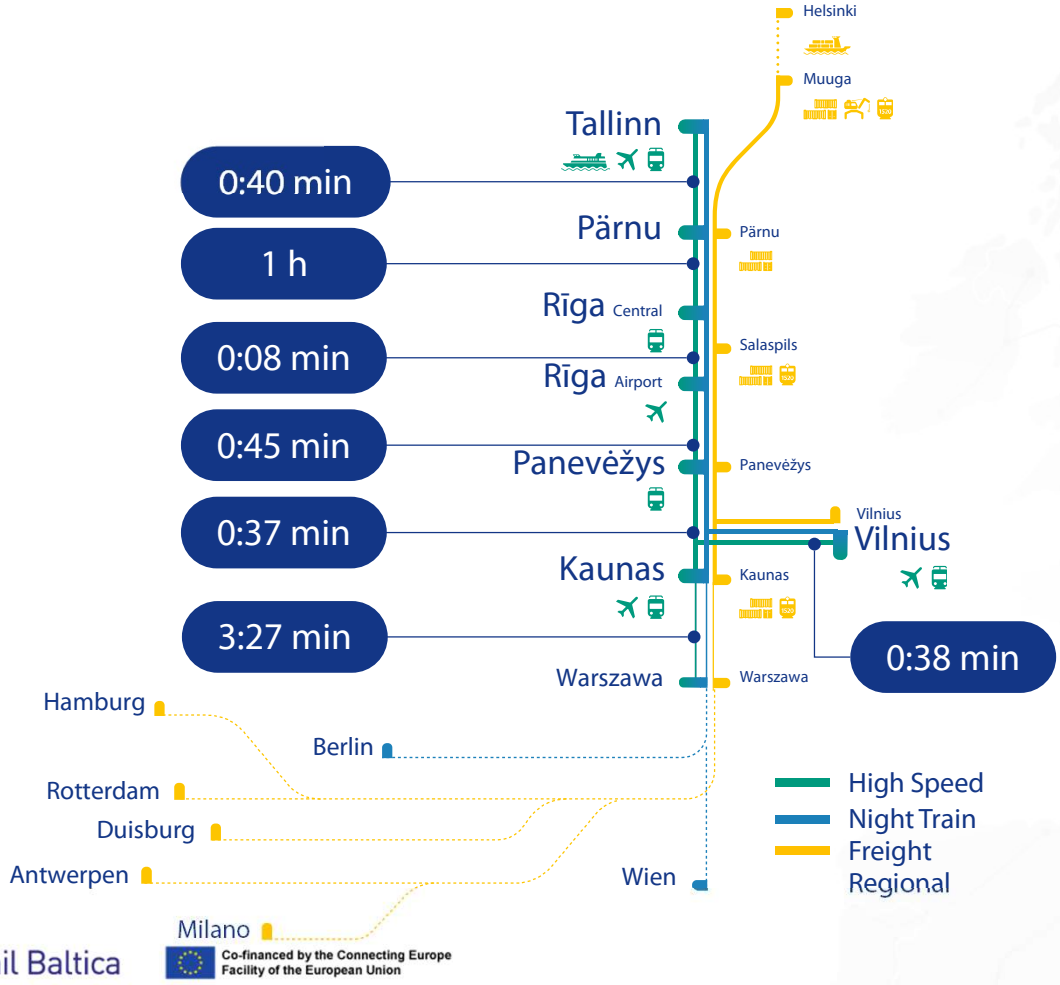
#StandWithUkraine

Progress on Rail Baltica subsytems

Jean-Marc Bedmar, Head of Systems and Operation Department, RB Rail AS
Antanas Šnirpūnas, Power Supply Team Leader, RB Rail AS
Andris Losans, CCS Project Manager, RB Rail AS

Co-financed by the Connecting Europe Facility of the European Union

Basis for new economic corridor, post-Covid recovery and military mobility



870 km greenfield railway infrastructure

1435 mm Double track

ERTMS Level 2 + FRMCS*

Electrified 2x25kV AC

Maximum length of freight trains: 1050m

Axle load 25t

Design speed:
249 km/h for passenger trains
120 km/h for freight trains

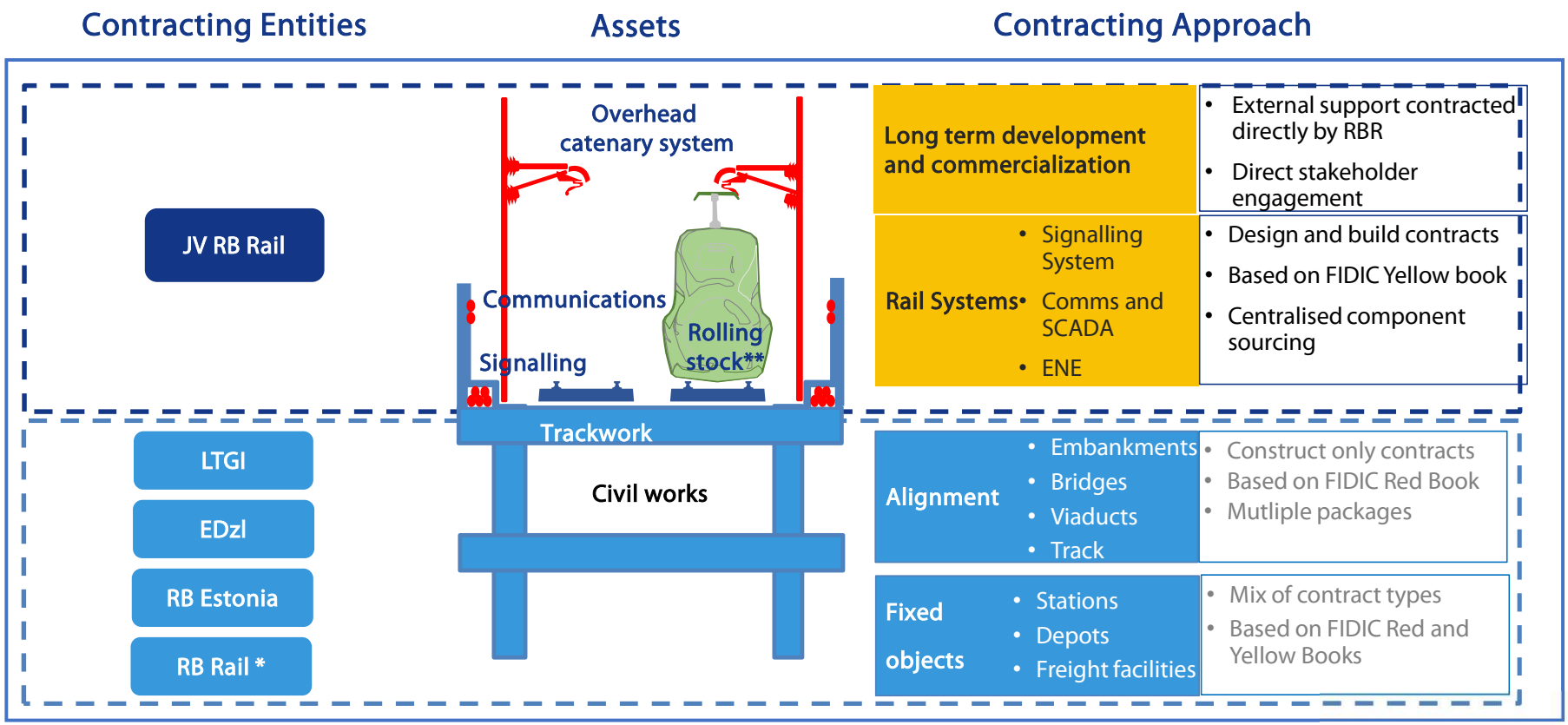
SE-C (Swedish) loading gauge

Rail Baltica

Co-financed by the Connecting Europe Facility of the European Union

* Subject to confirmation

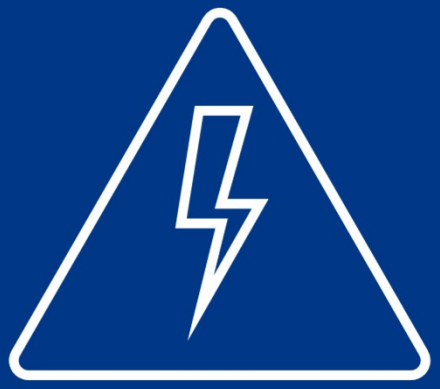
Contracting Overview



* *RB Rail AS is responsible for cross border elements of alignment*

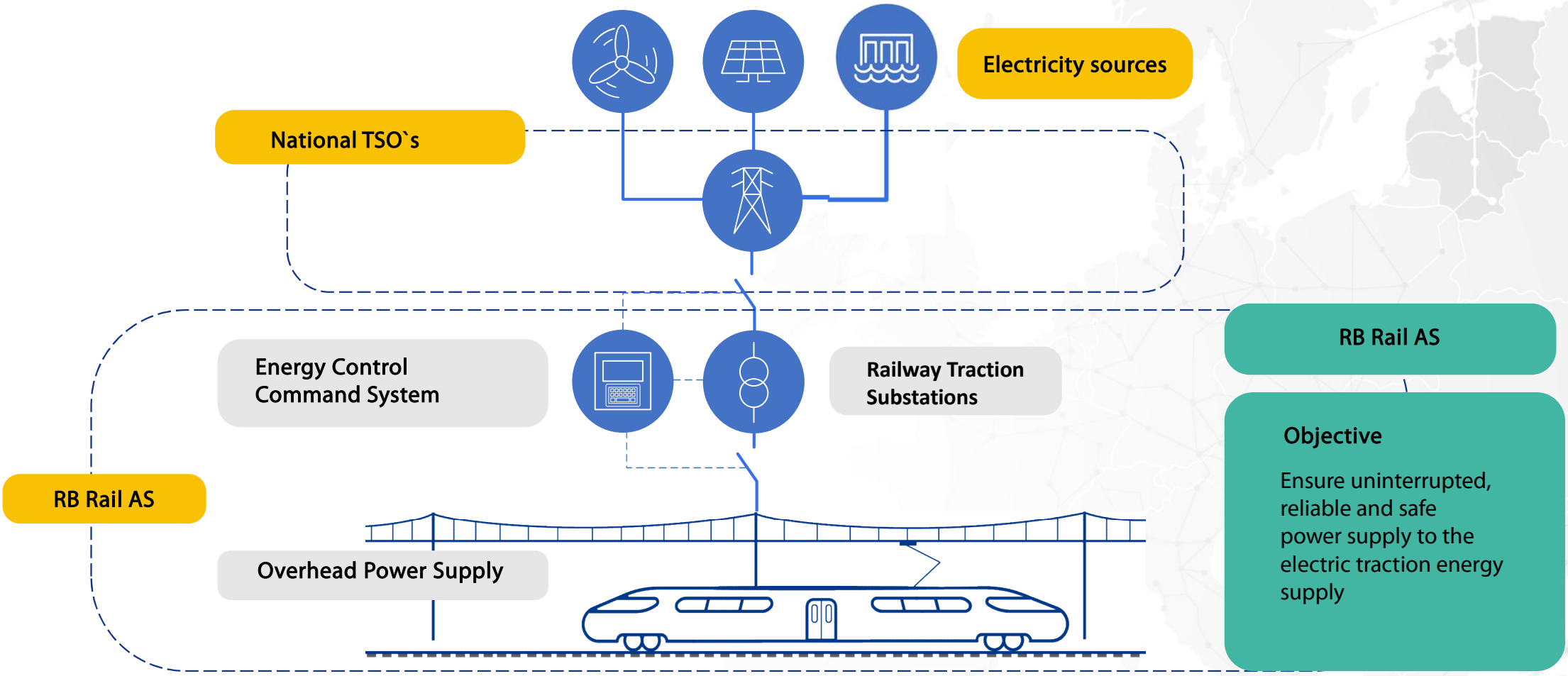
** *Rolling stock procurement is not part of the current project scope*

Rail Baltica



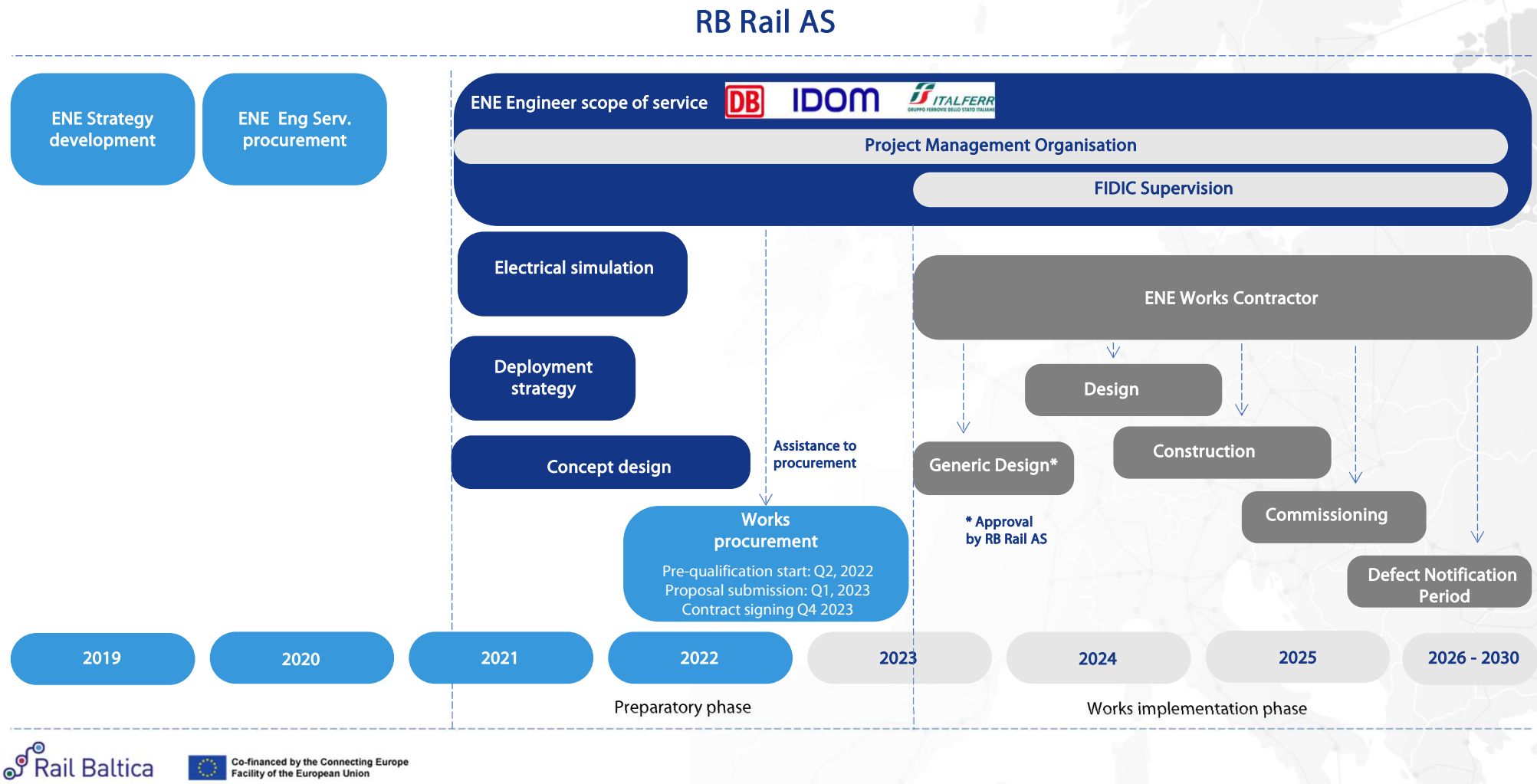
Progress on Rail Baltica ENE System

Scope of Rail Baltica Energy subsystem (ENE) deployment



Rail Baltica
Co-financed by the Connecting Europe Facility of the European Union

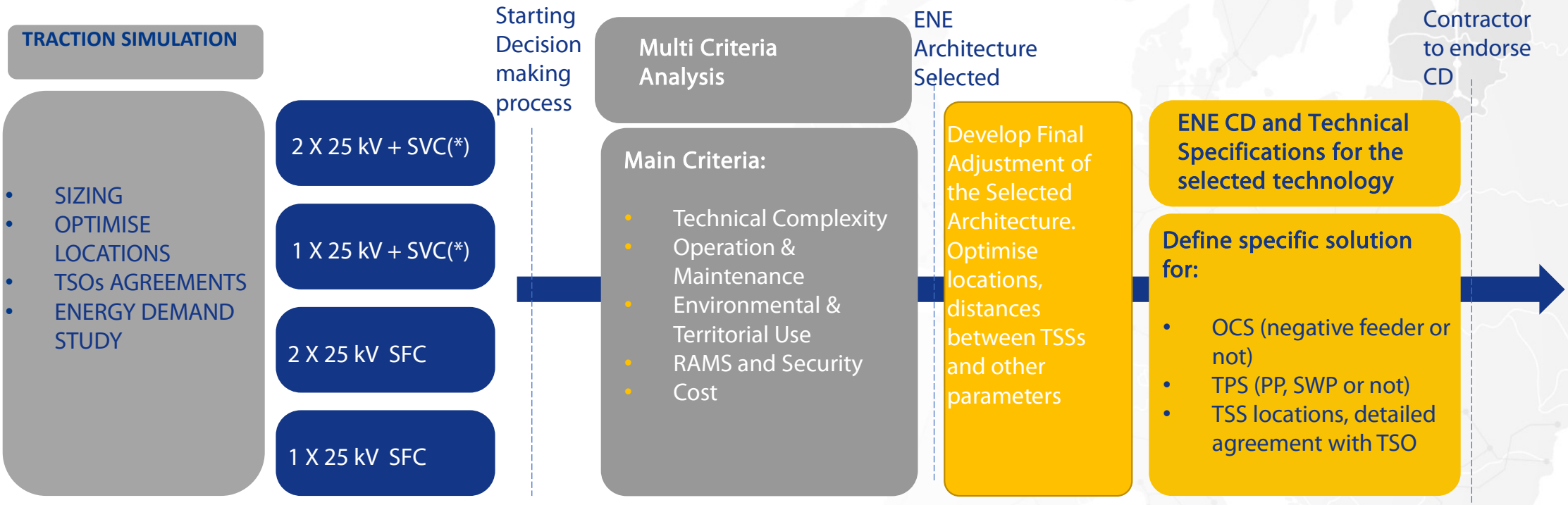
Rail Baltica ENE deployment timeline



Rail Baltica

Co-financed by the Connecting Europe Facility of the European Union

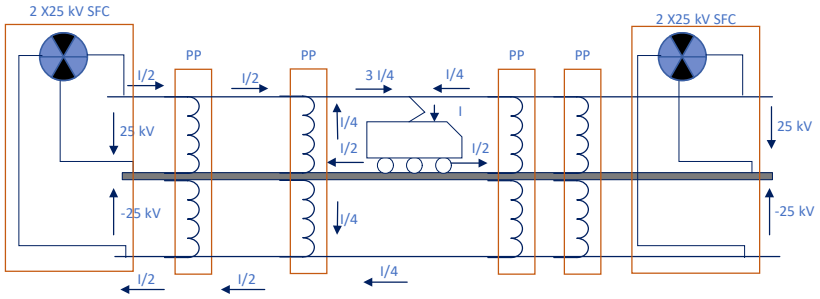
Definition process

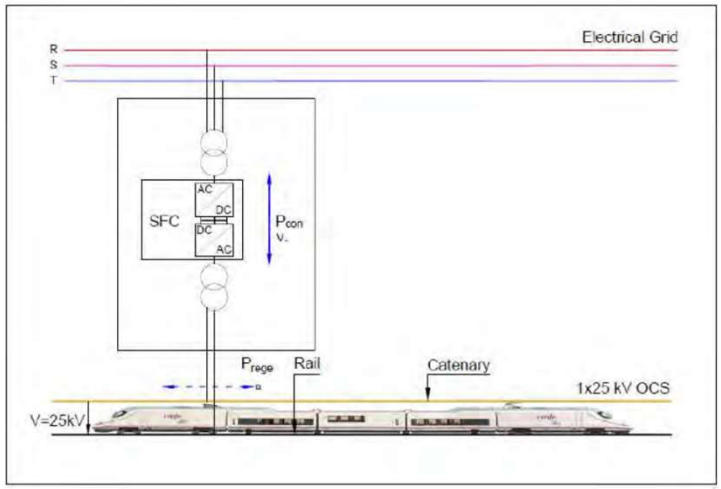


- In all feeding points along the line is necessary to implement additional equipment to achieve TSOs quality parameters
- SVC = Static Variable Compensators
- SFC = Static Frequency Convertor

9. 2x25 kV SFC: Main characteristics

2 X 25 kV (with SFCs)





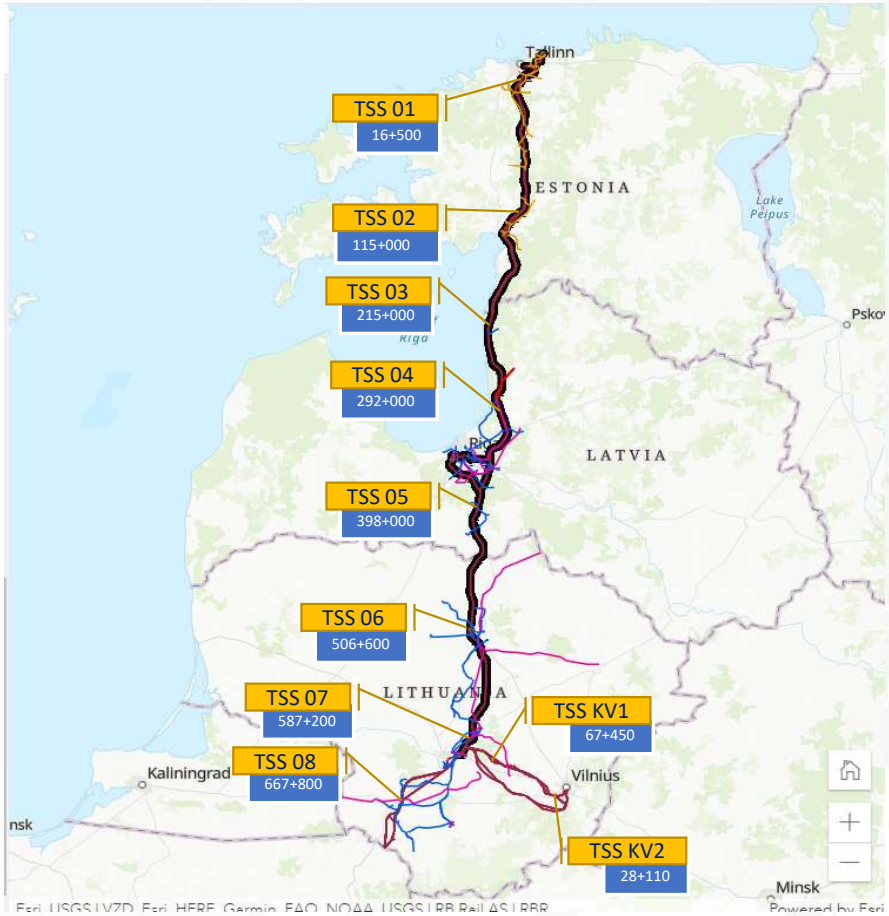
Interconected System: All TSSs are working in parallel

More capability to adjust TSS locations

More flexible to adapt to Spatial Plan areas, minimize environmental impact, restricted or protected areas

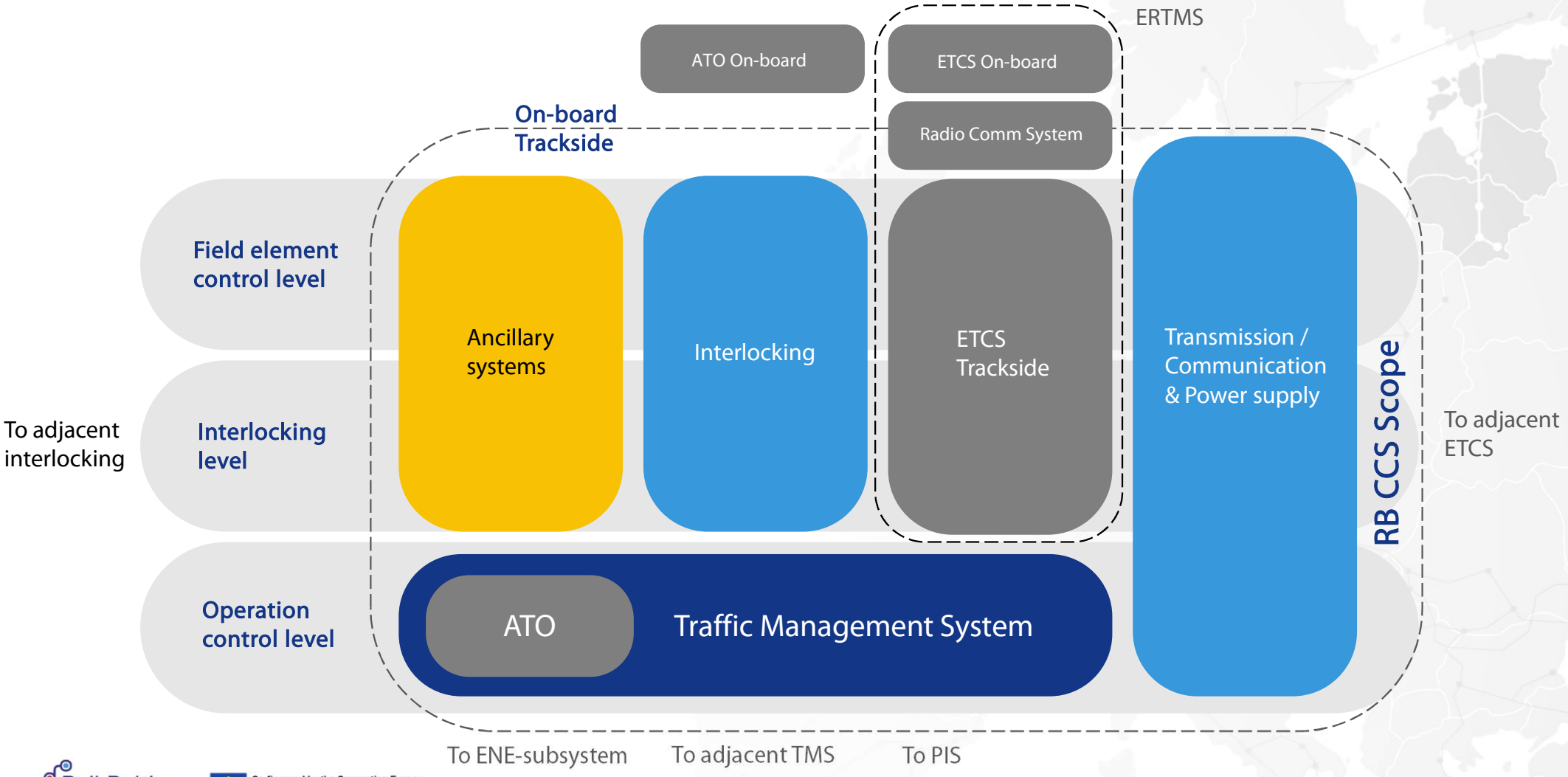
TSS Locations – TSO Connections

	TSS Location	TSO Connection
EE	TSS01/OK	Confirmed
	TSS02/OK	Confirmed
LV	TSS03/OK	Confirmed
	TSS04/OK	Confirmed
	TSS05/OK	Confirmed
LT	TSS06/OK	Confirmed
	TSS07/OK	Confirmed
	TSS08/OK	Confirmed
	TSS09/OK	Confirmed
	TSS10/OK	Confirmed



Rail Baltica CCS Deployment

Scope of Rail Baltica Control-command and signalling (CCS) deployment



Rail Baltica

Co-financed by the Connecting Europe Facility of the European Union

870 km of main line double track

Single design concept across 3 Baltic states resulting in scale and maintenance economies, limited number of interfaces

Sustainability and Life-Cycle Cost requirements

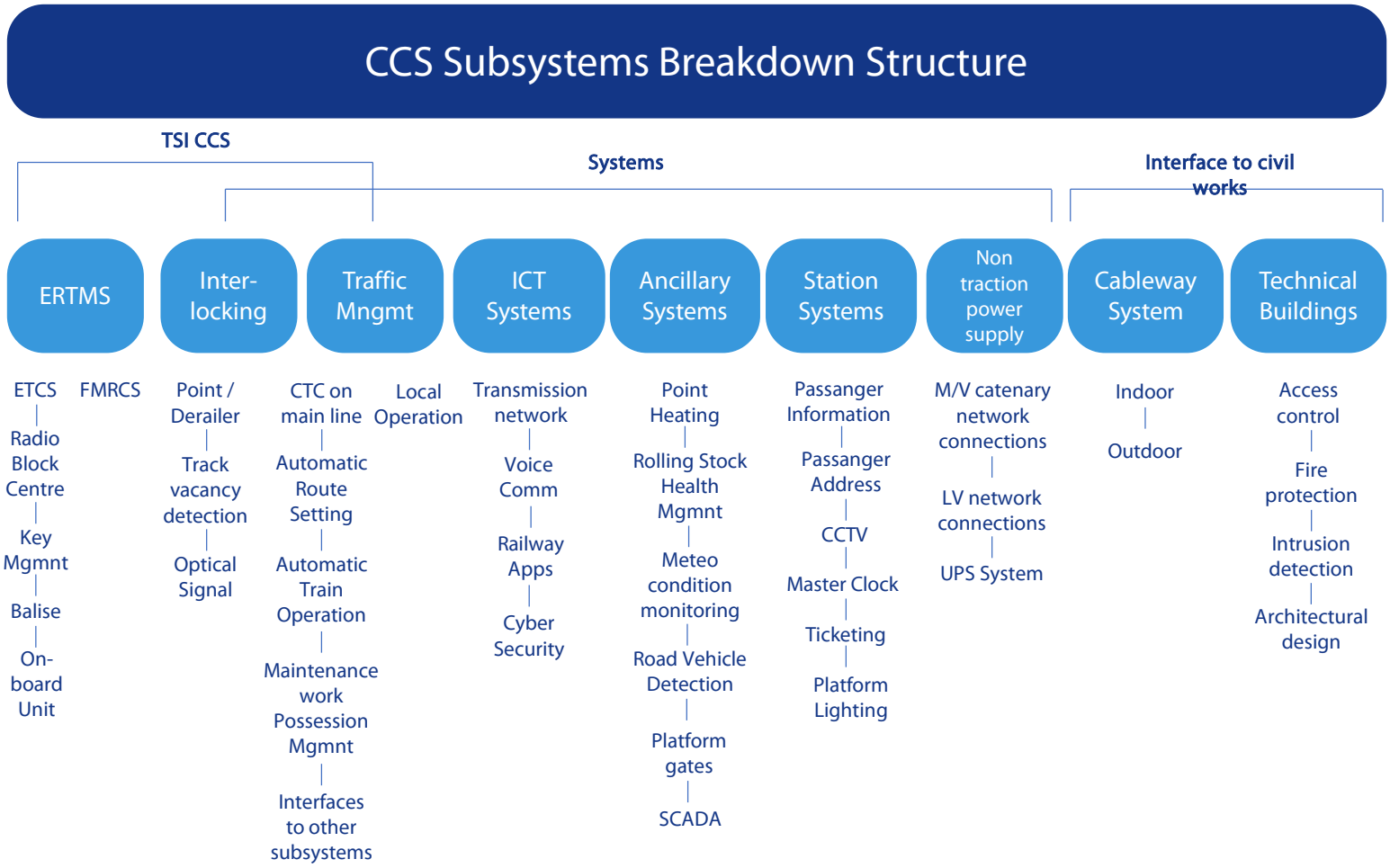
"State-of-the-art and further" by early adopting the latest evolutions of CCS standardization and initiatives (game changers from Shift2Rail and industry innovations (ATO functionalities, etc.)

Advanced coordination functions for intermodal operation with 1520 mm railways

Concentration of equipment in Systems Equipment Locations (around block posts)

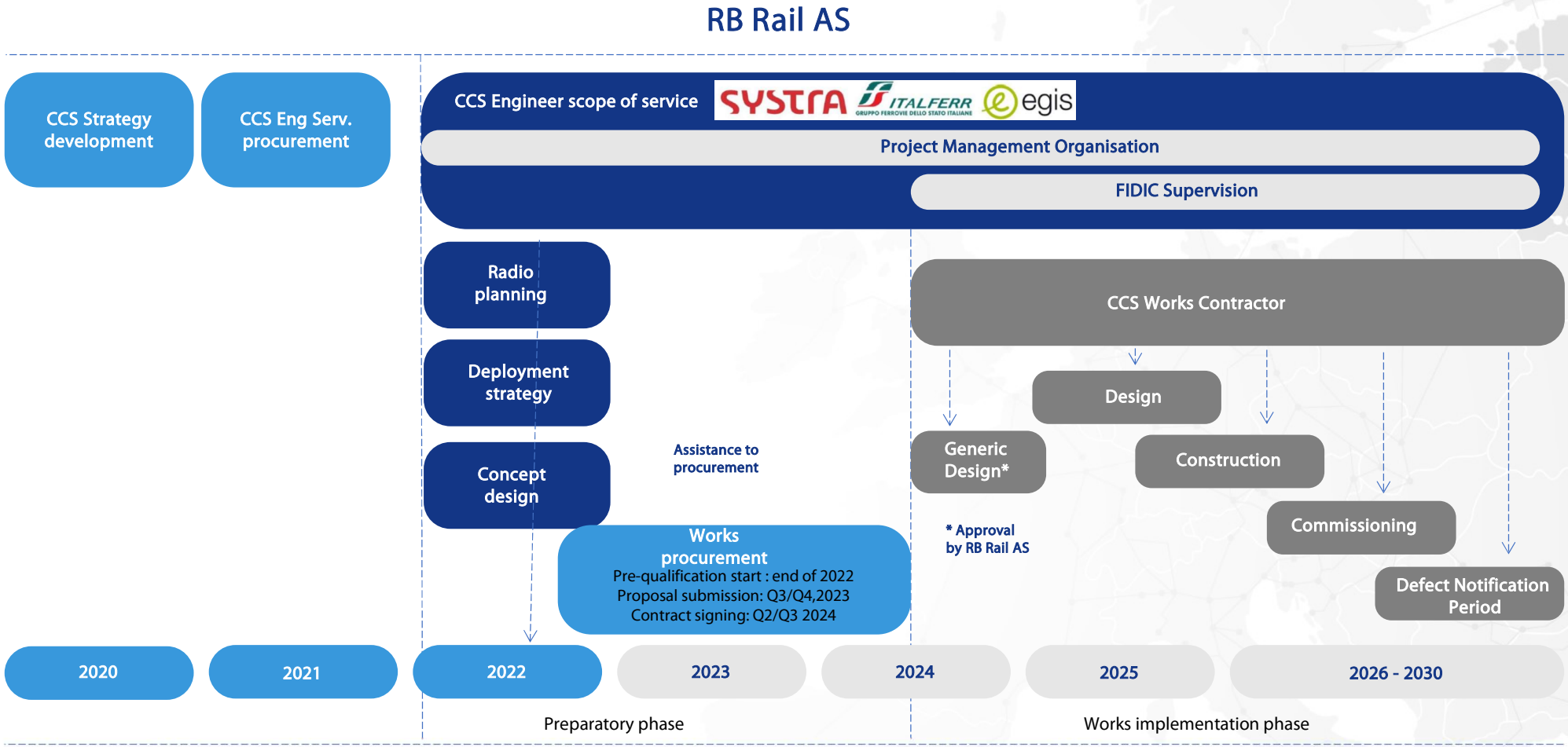
Zero copper cables on open line

Usage of local renewable power supply



Vi2

Rail Baltica CCS deployment timeline



Rail Baltica

Co-financed by the Connecting Europe Facility of the European Union

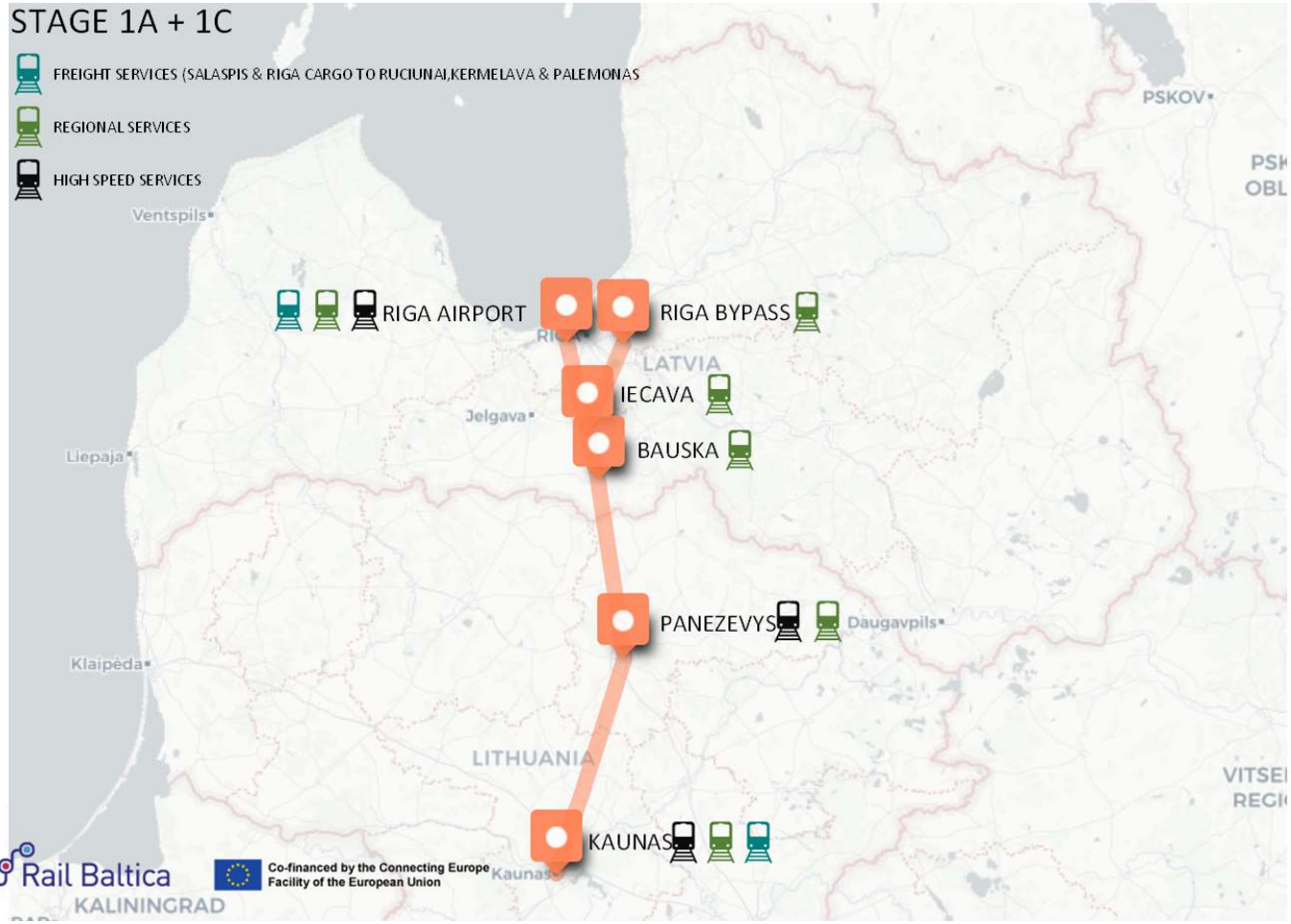
Slide 13

Vi2 Here we have to update correct timeline of last phase of the agreement - DNP includes time until 2032 not 2030 as now indicated.

Vieslietotājs; 12.08.2022

AL2

Deployment strategy



Stage 1A:

- Double track length LV ~ 80km
- Double track length LT – 160km

Stage 1C

- Double track length LV – 67km

Slide 14

AL2 Propose use slides 11-14 instead of 15-17. These more provide clear staging.
Andris Losāns; 19.09.2022

Deployment strategy

Stage 1B

- Double track length EE ~ 125km

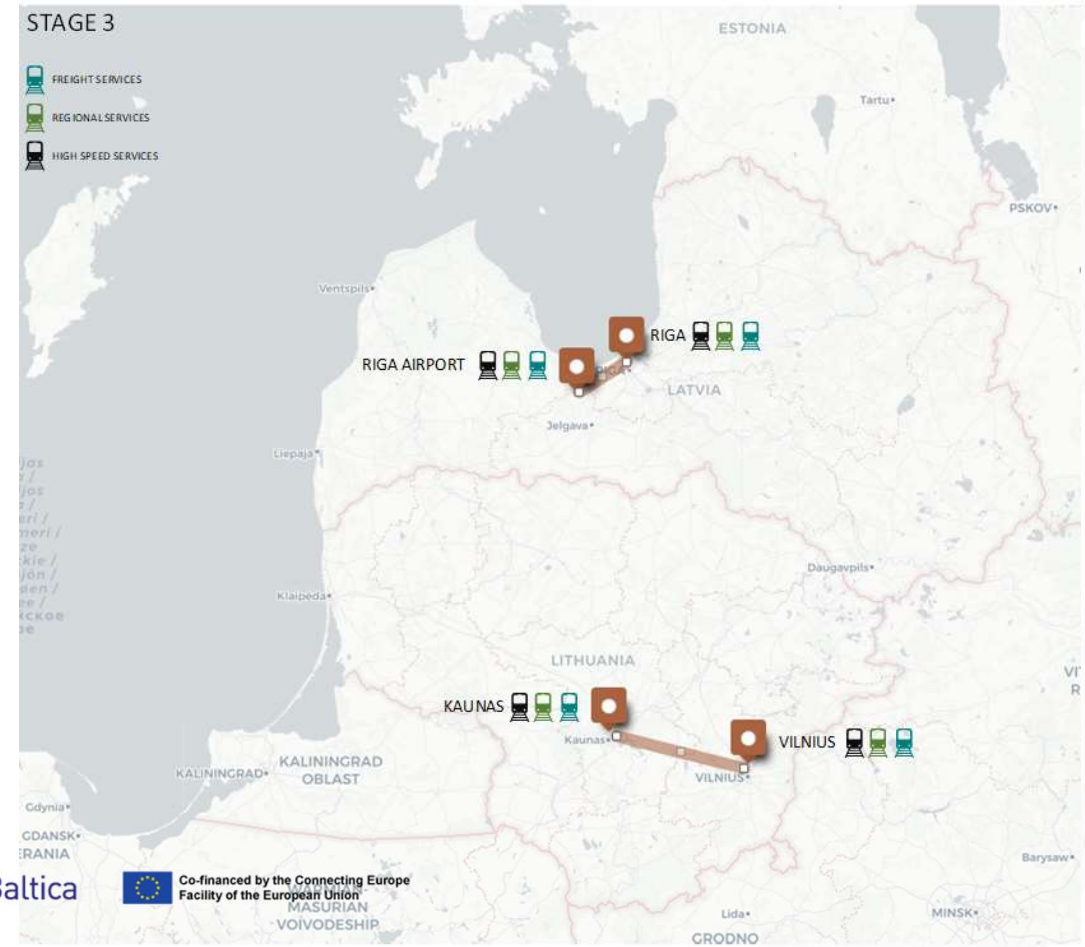
Deployment strategy

Stage 2

- Double track length EE ~ 95km
- Double track length LV – 110km
- Double track length LT – 110km

Rail Baltica

Deployment strategy



Stage 3

- Double track length LV ~ 15km
- Double track length LT ~ 105km

Rail Baltica
Co-financed by the Connecting Europe Facility of the European Union


Rail Baltica
Industry Day 2022
9 November
More on: www.railbaltica.org

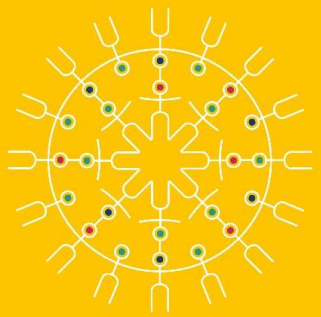
Rail Baltica
Coordinated by RB Rail

OUR VISION

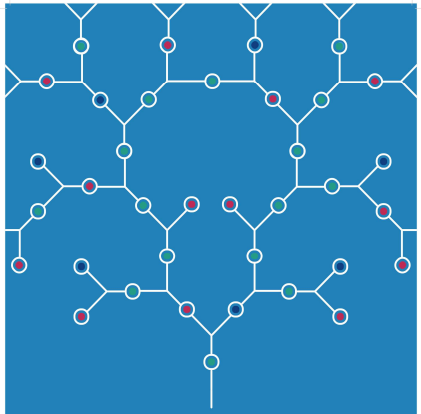
Connected Baltics in a connected Europe

OUR MISSION

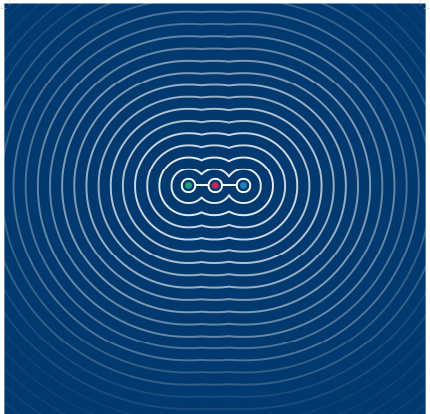
We are delivering a seamless mobility for people, goods and services to accelerate social and economic development in the Baltics and beyond



WE VALUE PEOPLE

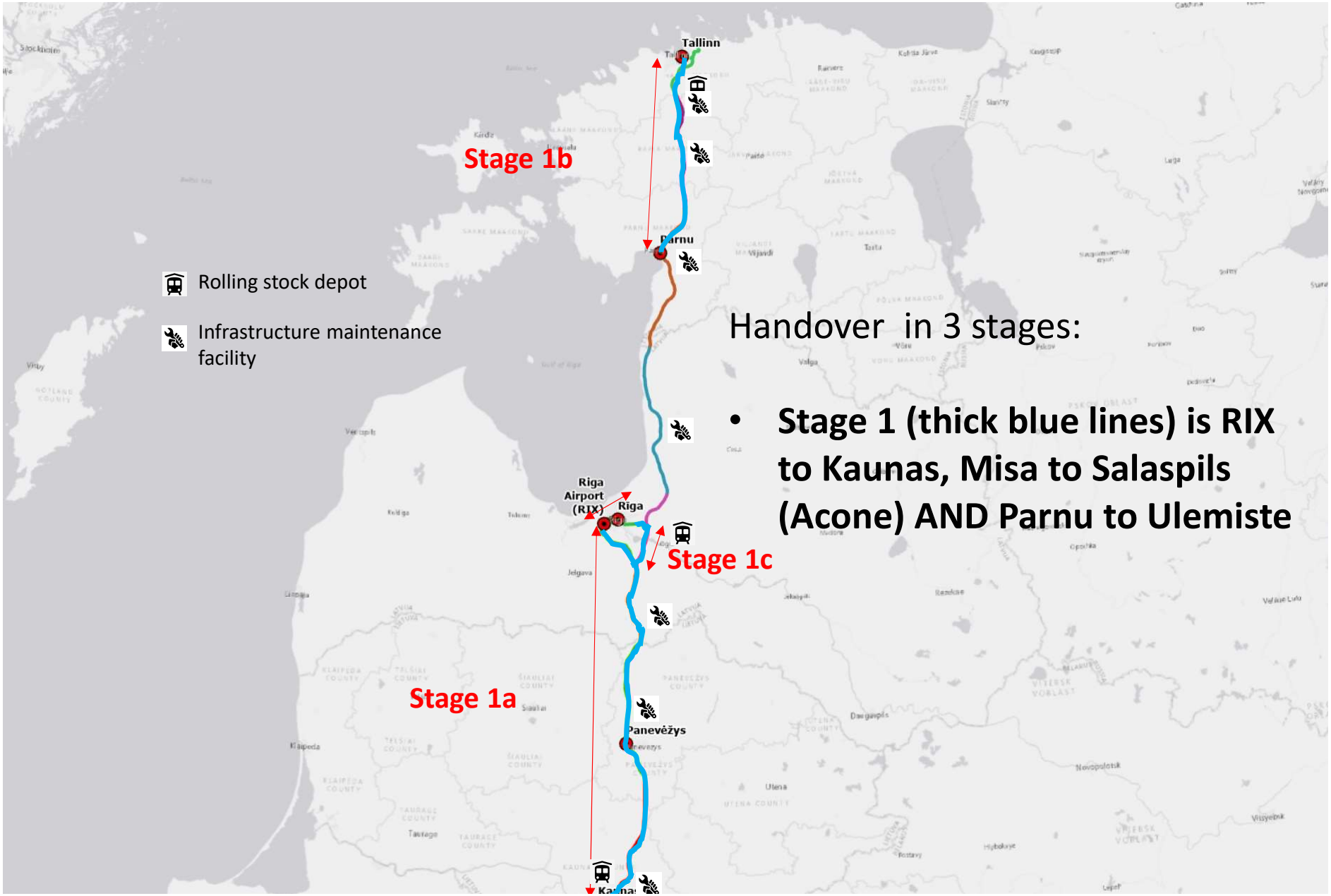


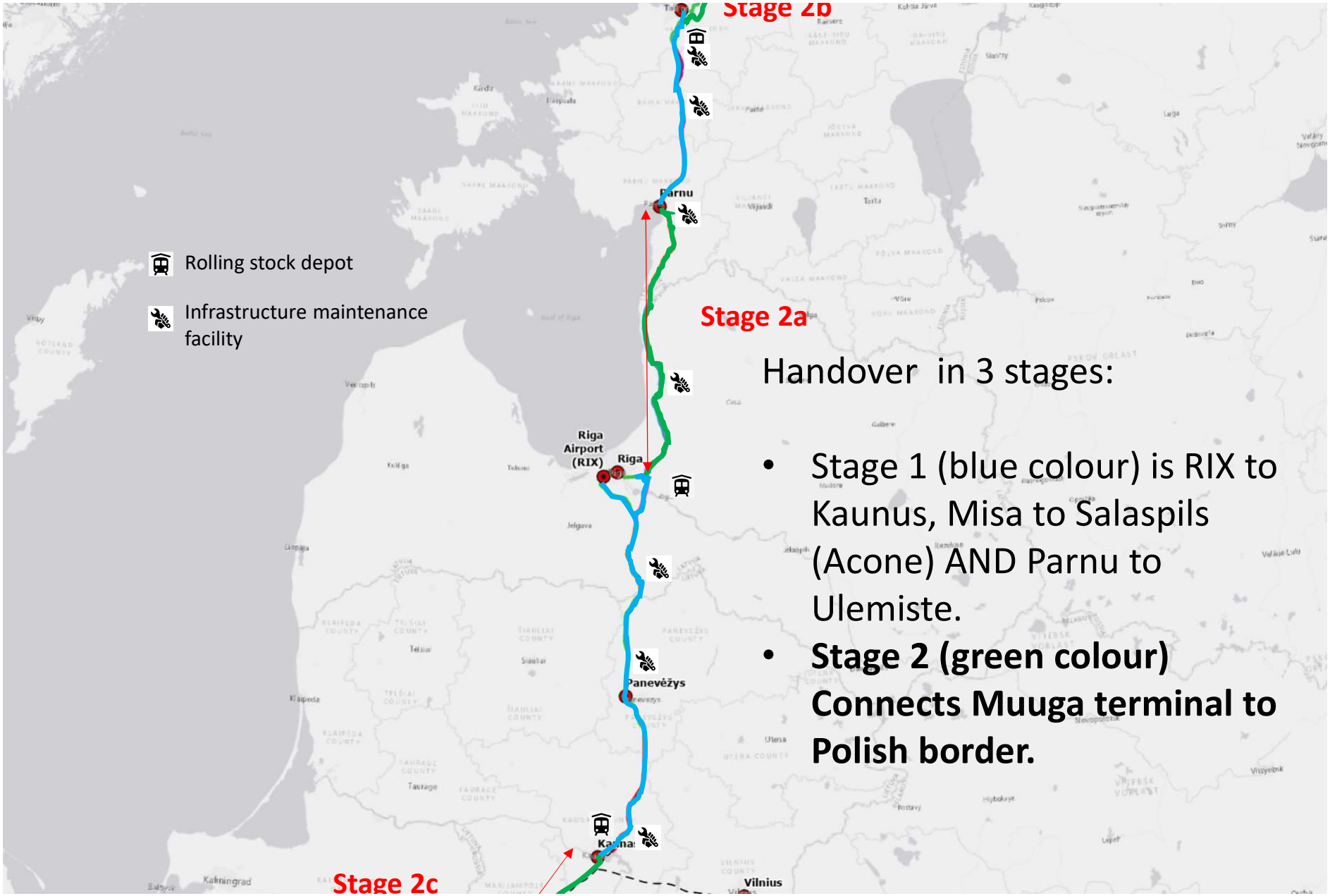
WE VALUE PROFESSIONALISM

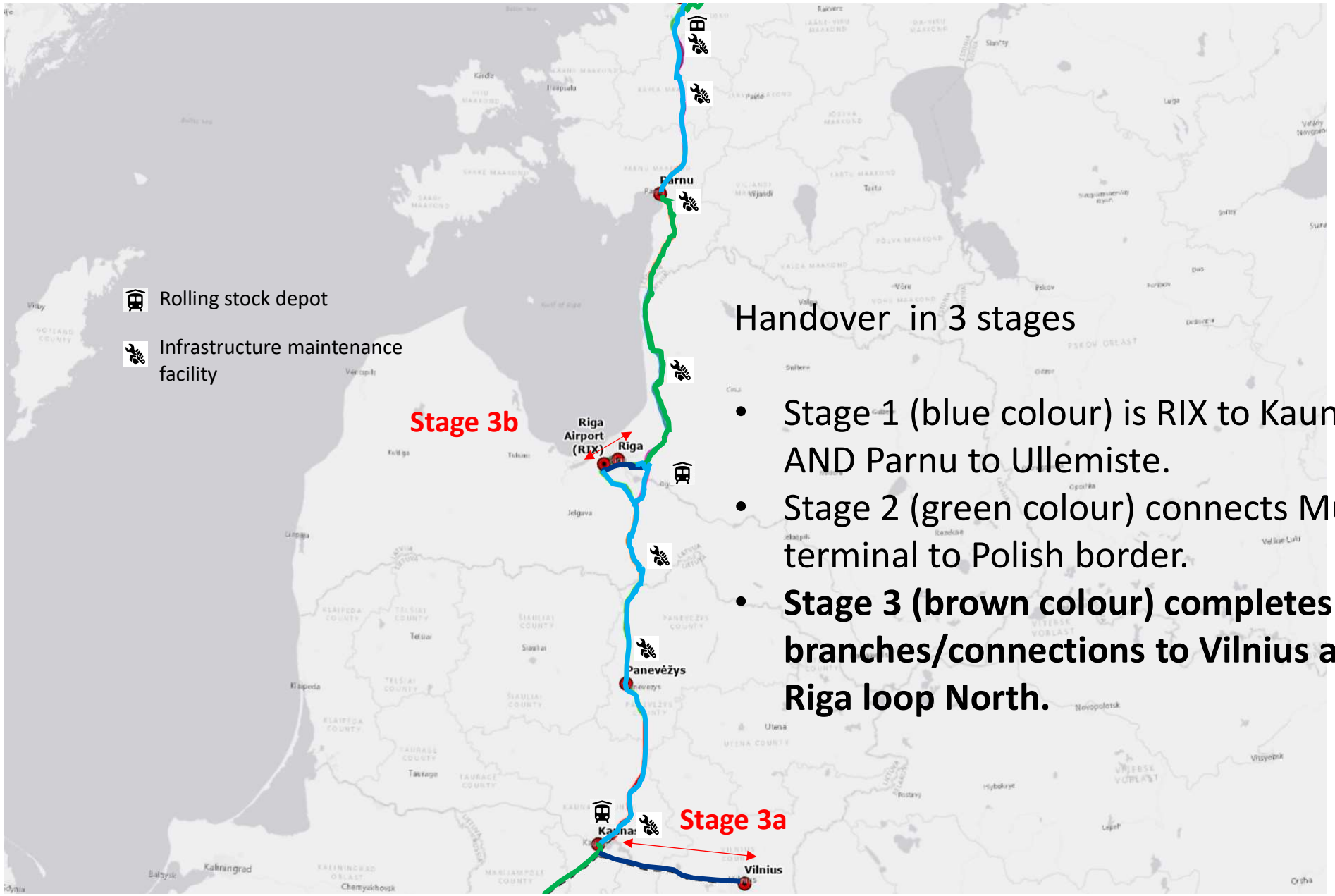


WE VALUE PURPOSE

Thank you!


Tallinn
Stage 1b
Parnu
Rolling stock depot
Infrastructure maintenance facility
Handover in 3 stages:
• Stage 1 (thick blue lines) is RIX to Kaunas, Misa to Salaspils (Acone) AND Parnu to Ulemiste
Riga Airport (RIX)
Riga
Stage 1c
Stage 1a
Panevėžys


Stage 2b
Rolling stock depot
Infrastructure maintenance facility
Parnu
Stage 2a
Riga Airport (RIX)
Riga
Panevėžys
Kaunas
Stage 2c
Vilnius
Handover in 3 stages:
• Stage 1 (blue colour) is RIX to Kaunus, Misa to Salaspils (Acone) AND Parnu to Ulemiste.
• **Stage 2 (green colour) Connects Muuga terminal to Polish border.**



Handover in 3 stages

- Stage 1 (blue colour) is RIX to Kaunus AND Parnu to Ullemiste.
- Stage 2 (green colour) connects Muuga terminal to Polish border.
- **Stage 3 (brown colour) completes branches/connections to Vilnius and Riga loop North.**