Rail Baltica

Welcome to Rail Baltica – Project of the Century

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

Riga, October 2021

Rail Baltica Global Project technical parameters

Total Line Length	870 km of which: • 213 km in Estonia • 265 km in Latvia • 392 km in Lithuania
Design Speed	• 249 km/h for passenger trains • 120 km/h for freight trains
Standard Gauge	1435 mm
Double-track Electrifed	2x25kVAC
Axle Load	25 t
Traffic Management	ERTMS L2
Max. Freight Train Lenght	1050 m

Rail Baltica

Rail Baltica

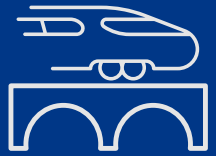
Estimated Scope of Works

Structural part

870 km
railway tracks

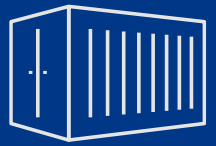
37
bridges

6
maintanance facilities



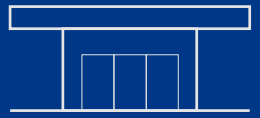
101
railway viaducts

38
animal passages



3
freight terminals

77
road viaducts



7
International passenger terminals

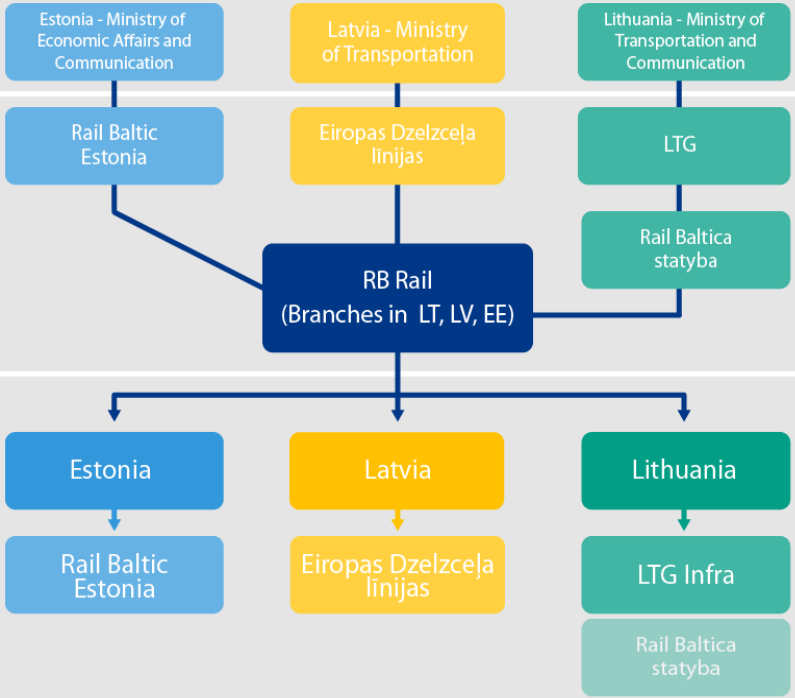
1
railway tunnel

ENE part

~2 000 km of catenary
~50 000 masts
~4 350 tonnes of copper wire

Min. 13 Traction substations:
3 in Estonia
4 in Latvia
6 in Lithuania

Rail Baltica Governance structure



Beneficiaries

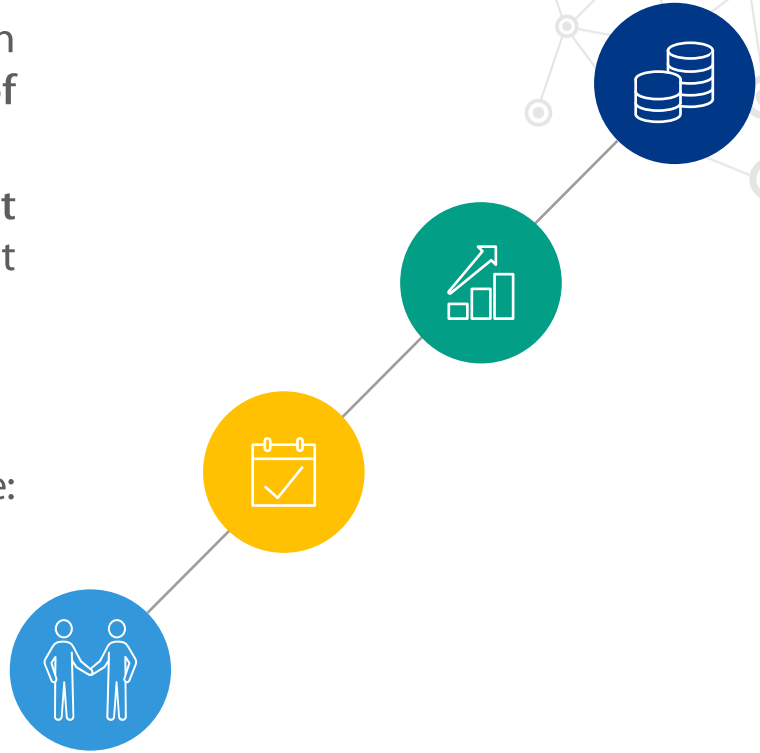
Company shareholders

Coordinator

National implementing bodies

What suppliers should be aware of?

- RB Rail AS contracts are awarded by procuring in accordance with **Public Procurement Law of Republic of Latvia.**
- Submission of bids are managed via an **e-procurement system** (www.eis.gov.lv); register your company and get acquainted to the tool
  - Owned & operated by state authorities
  - Manual is available on www.railbaltica.org
- Follow the development of the project via our webpage: www.railbaltica.org
- Sign up to the **newsletter** and **procurement** news

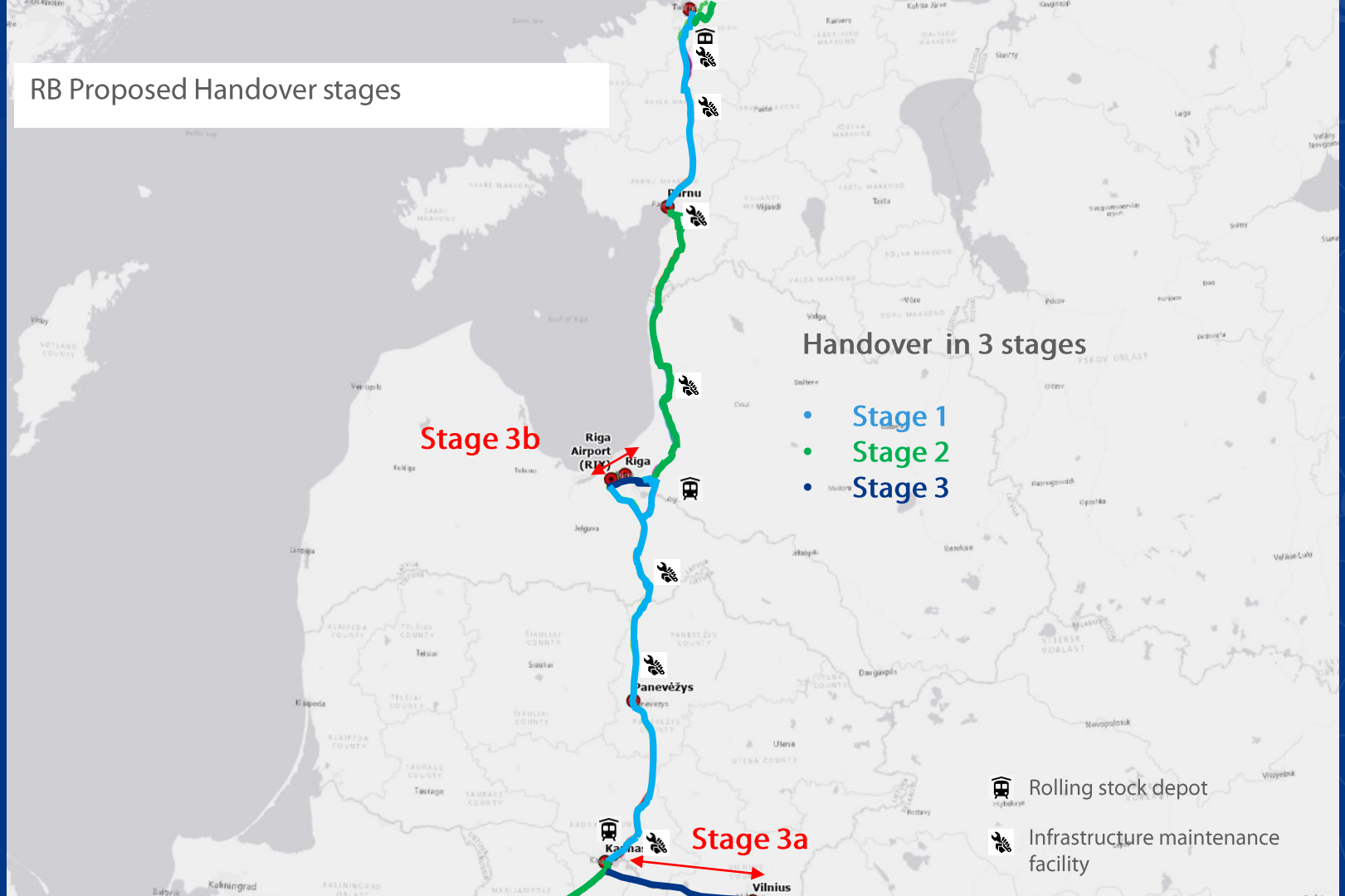


ENE Works procurement

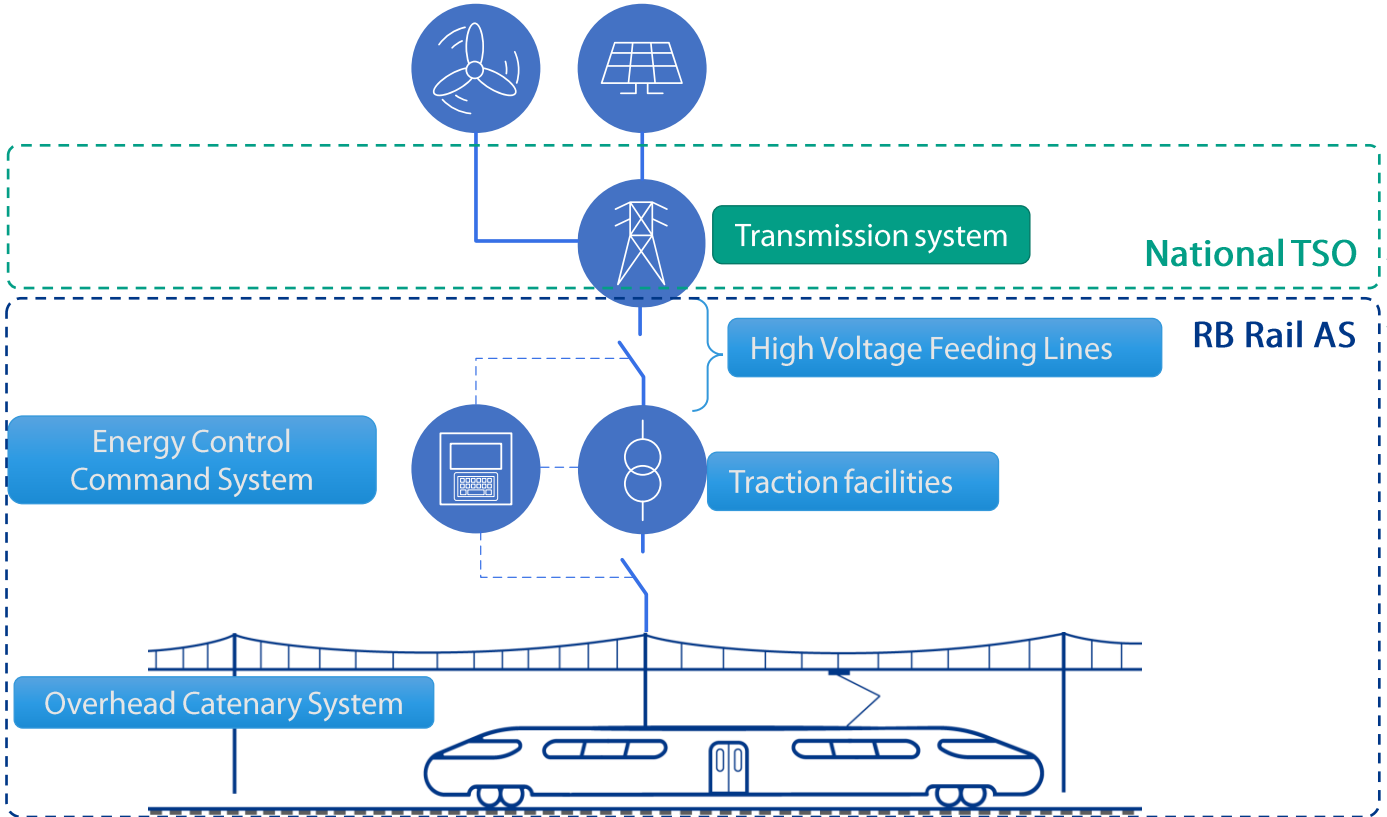
- Potential public procurement procedure – two stage procedure «Competitive procedure with negotiations» which consists of 2 stages:
  - Qualification stage
  - Technical and financial proposal stage + negotiations.
- Current status:
  - ENE Engineer in place since April 2021, carrying out simulations, preparing Concept design, defining deployment strategy.
  - Entering into procurement preparation phase.
- Next steps:
  - Market consultations 12 – 15 October 2021
  - Preparation of first stage procurement documentation until December 2021
  - Announcement of the first stage of the procurement end of December 2021.

Rail Baltica Master programme & Handover strategy

RB Proposed Handover stages



Rail Baltica ENE deployment – technical scope & Main targets

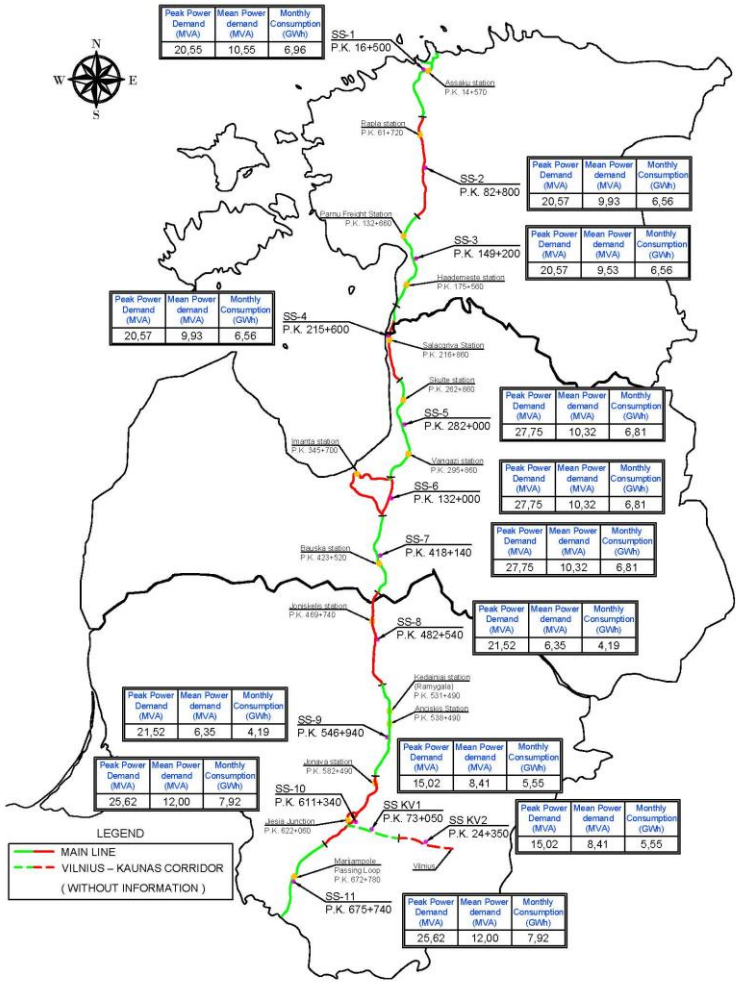


Responsibility border to be agreed for every Connection Point

➢ **Main targets**

- Safety
- Environmental impact minimisation
- Life cycle costs
- Railway Operation needs
- Railway Maintenance needs
- Efficiency of energy consumption
- RAMS

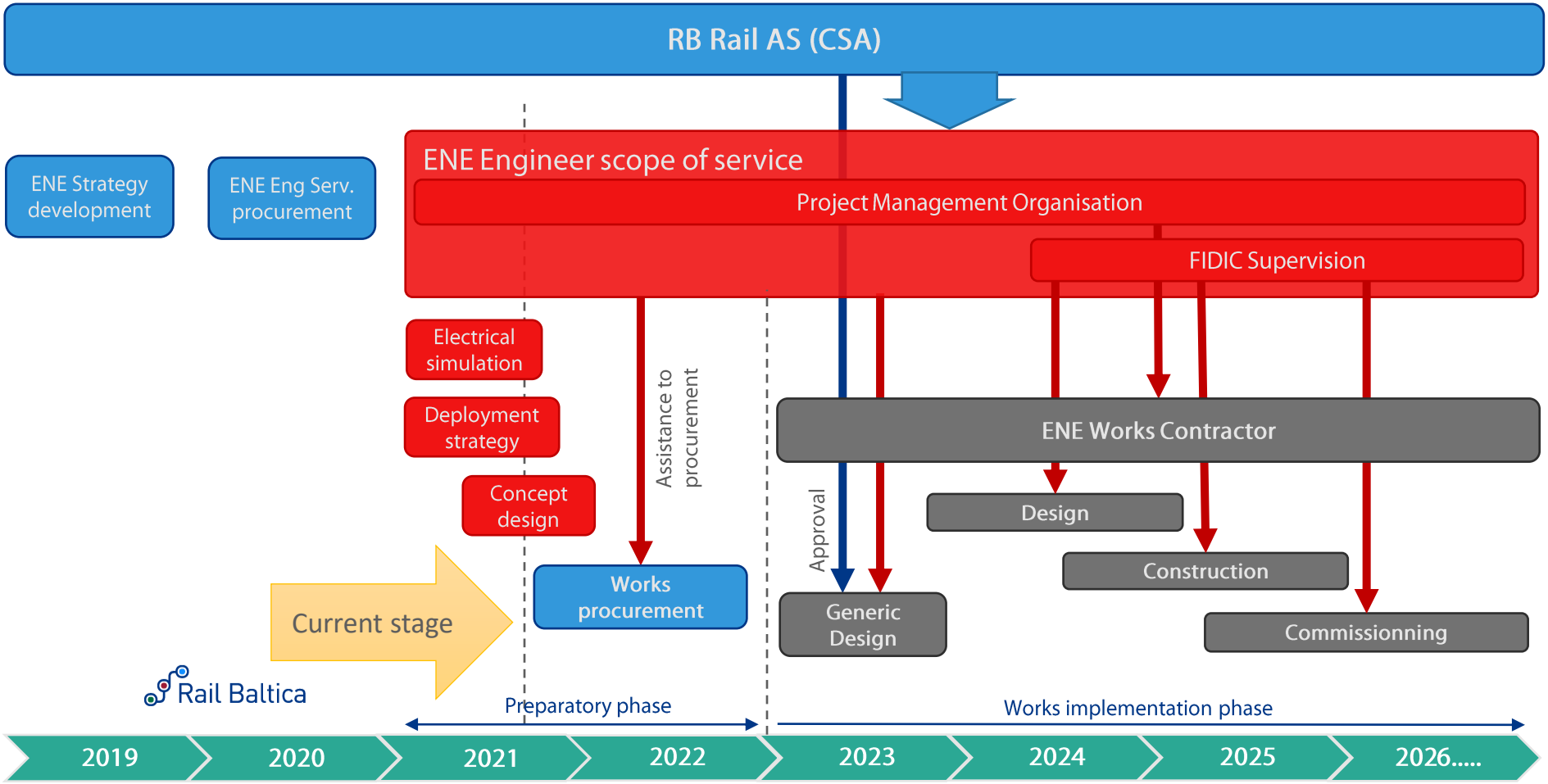
Rail Baltica Energy Subsystem - deployment strategy analysis



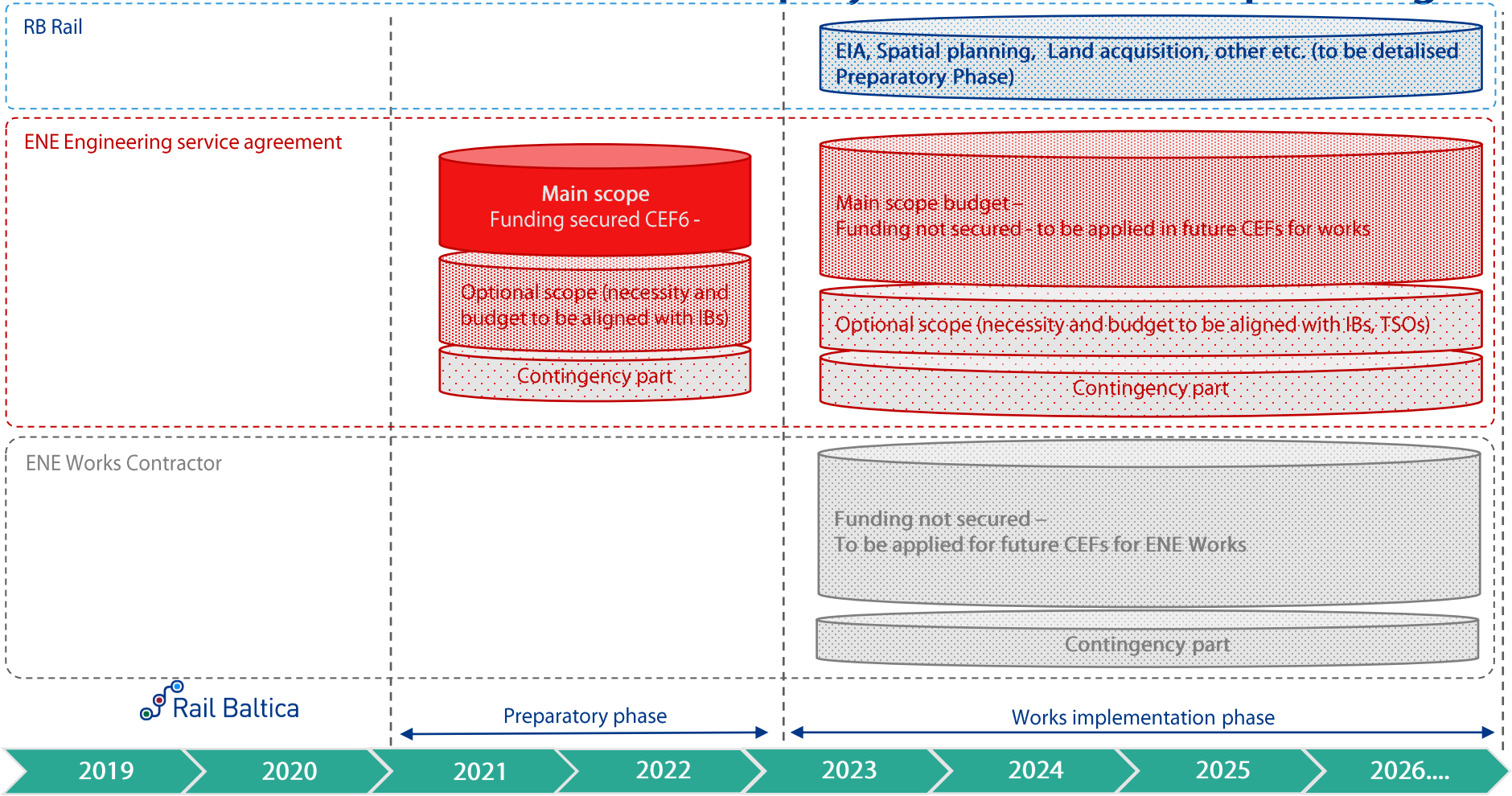
- 870 km of double track, ~2 000 km of catenary , ~50 000 masts
- ~4 350 tonnes of copper wire is estimated (2 kg/m)
- ~13 Traction substations estimated (3 EE, 4 LV, 6 LT) for 2x25 kV technology

Country	Energy consuption Total		Estimated for Rail Baltica		Country + RB	Increase (%)
	current (2017) (GWh)	foreseen for 2025 (GWh)	monthly (GWh)	annual (GWh)	foreseen (including RB) (GWh)	
EE	8 410	9 107	21,93	263	9 370	2,9%
LV	7 410	8 024	23,63	284	8 308	3,5%
LT	12 149	13 156	31,29	375	13 531	2,9%

Rail Baltica ENE deployment timeline



Rail Baltica ENE deployment – Financial planning



Rail Baltica
ENE Engineering Services

DB IDOM ITALFERR
GRUPPO FERROVIE DELLO STATO ITALIANE

1. ENE Engineering Service - Deployment Project Phases

Phase 1 – Preparatory Phase:

- Implementation of the **PMO** (Project Management Office)
- Technical services related to the preparation of **technical studies** and analysis required for the ENE subsystem deployment (including a comprehensive **Traction Power Simulation**)
- Delivery of the **Concept Design** for the ENE subsystem
- Preparation of the **Works Contract draft** and the related Technical Specifications and provision of the technical assistance during the overall Works procurement process

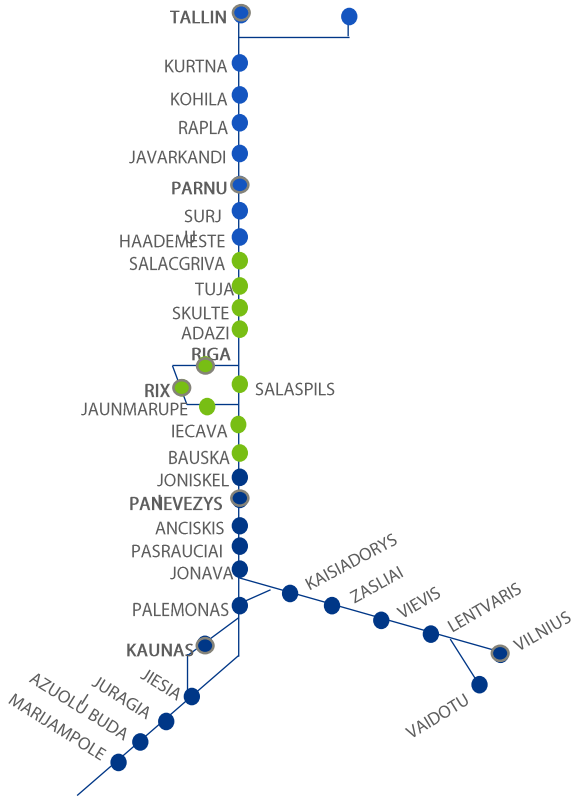
Phase 2 – Works Implementation Phase:

- **PMO** Services
- **Generic Design** Supervision and Design Supervision for Sections
- **Manufacturing and Delivering** Equipment and Supervision for Sections
- **DNP (Defects Notification Period)** supervision for the Service Sections
- **Closing out** Phase

Year 1-2

Year 2+

2. ENE Deployment Project - Technical Scope



RAIL BALTICA ENE SUBSYSTEM:

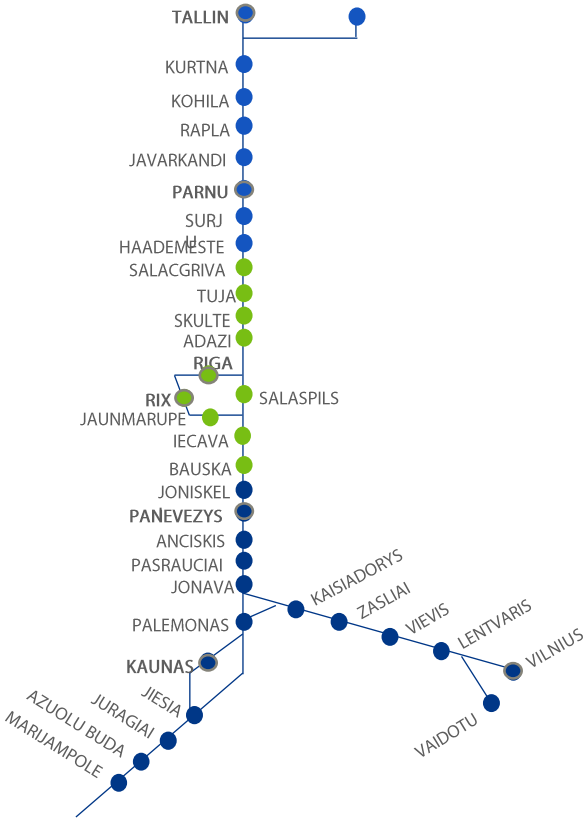
HIGH VOLTAGE FEEDING LINES (by the Employers)

TRACTION POWER SUPPLY

OVERHEAD CONTACT LINE

ENERGY CONTROL COMMAND SYSTEM

2. ENE Deployment Project - Technical Scope



2 x 25 kV	QUANTITY
Traction Substation+SVC	13
Paralleling Post	52
Switching Post	14

1 x 25 kV	QUANTITY
Traction Substation+SVC	24
Neutral Zone	25

2 x 25 kV SFC	QUANTITY
Traction Substation	11
Paralleling Post	46
Switching Post	9

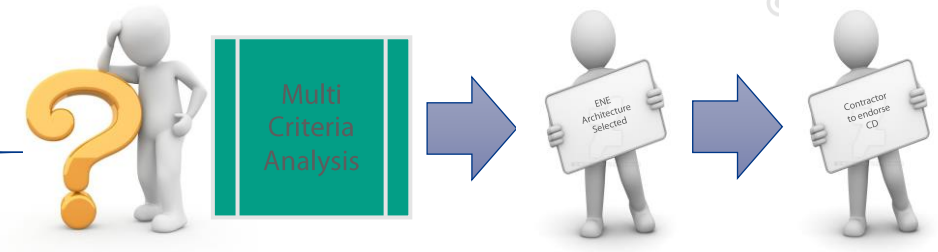
1 x 25 kV SFC	QUANTITY
Traction Substation	16

2. ENE Deployment Project - Technical Scope

TRACTION SIMULATION

- SIZING
- OPTIMISE LOCATIONS
- TSOs AGREEMENTS
- ENERGY DEMAND STUDY

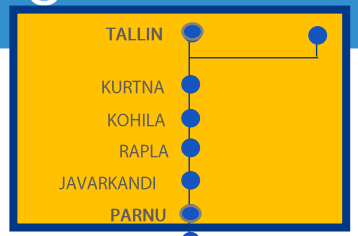
- 2 x 25 kV + SVC
- 1 x 25 kV + SVC
- 2 x 25 kV + SFC
- 1 x 25 kV + SFC

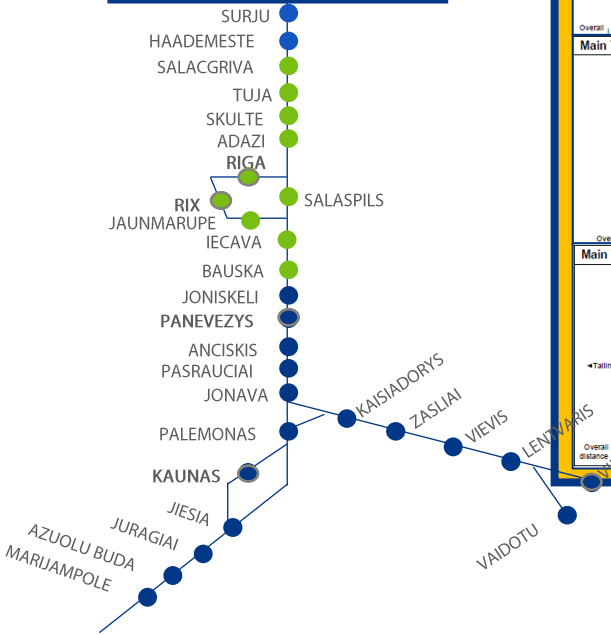


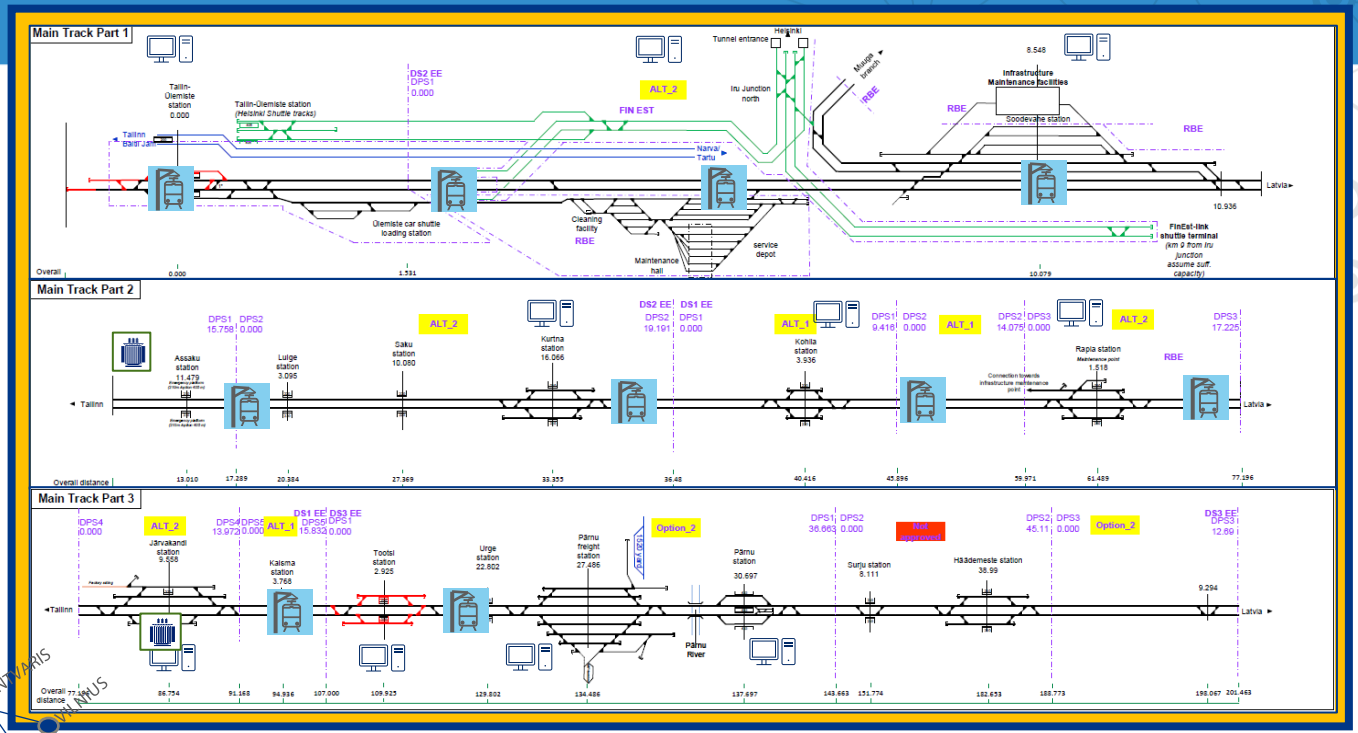
In all feeding points along the line is necessary to implement additional equipment to achieve TSOs quality parameter

3. ENE Deployment Project - Tallinn – Pärnu, Alignment

Rail Baltica



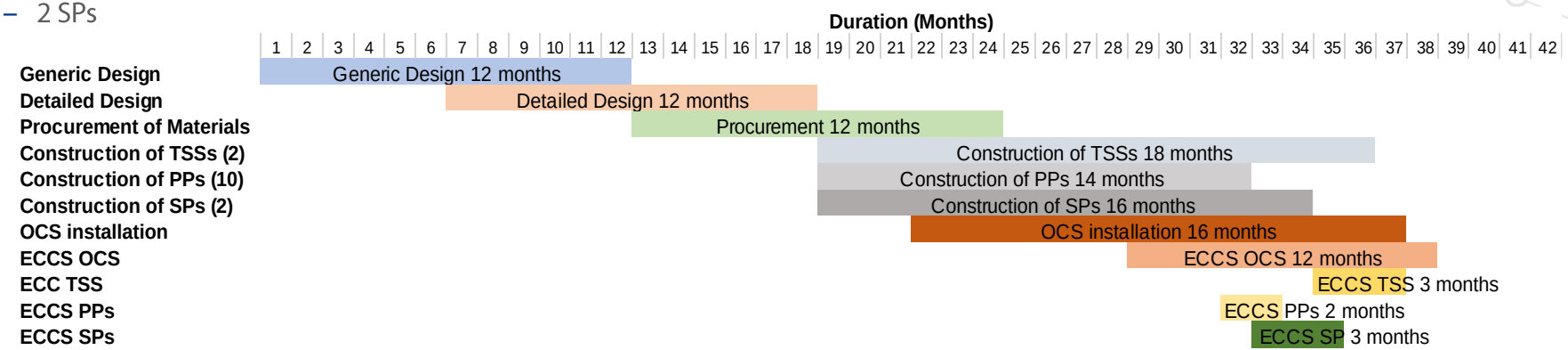




4. ENE Deployment Project - Tallin – Pärnu, Draft of a tentative Schedule

Tallin – Pärnu is a 140 km route section which has:

- 2 TSSs
- 10 PPs
- 2 SPs



*Construction & Installation durations in the chart include discipline tests

** Integration Tests are not considered. At least 3 additional months may be required

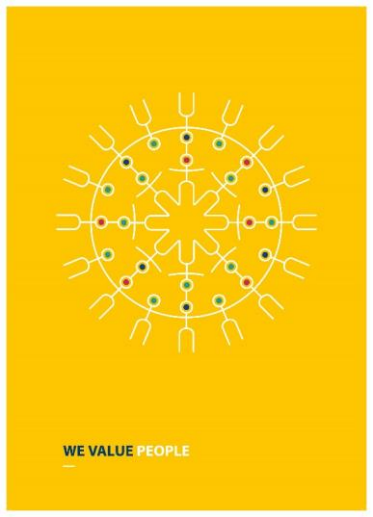
Rail Baltica
Coordinated by RB Rail

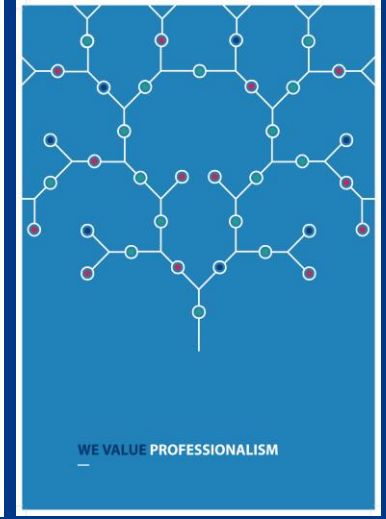
OUR VISION

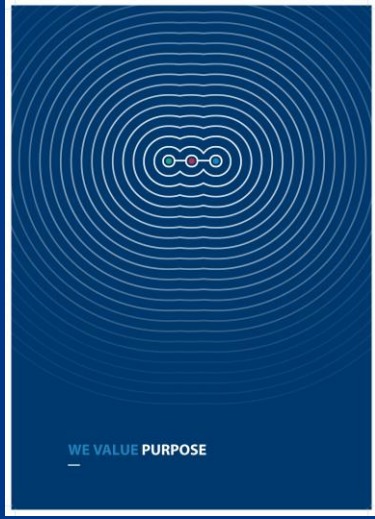
Connected Baltics in a connected Europe

OUR MISSION

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







Thank You!