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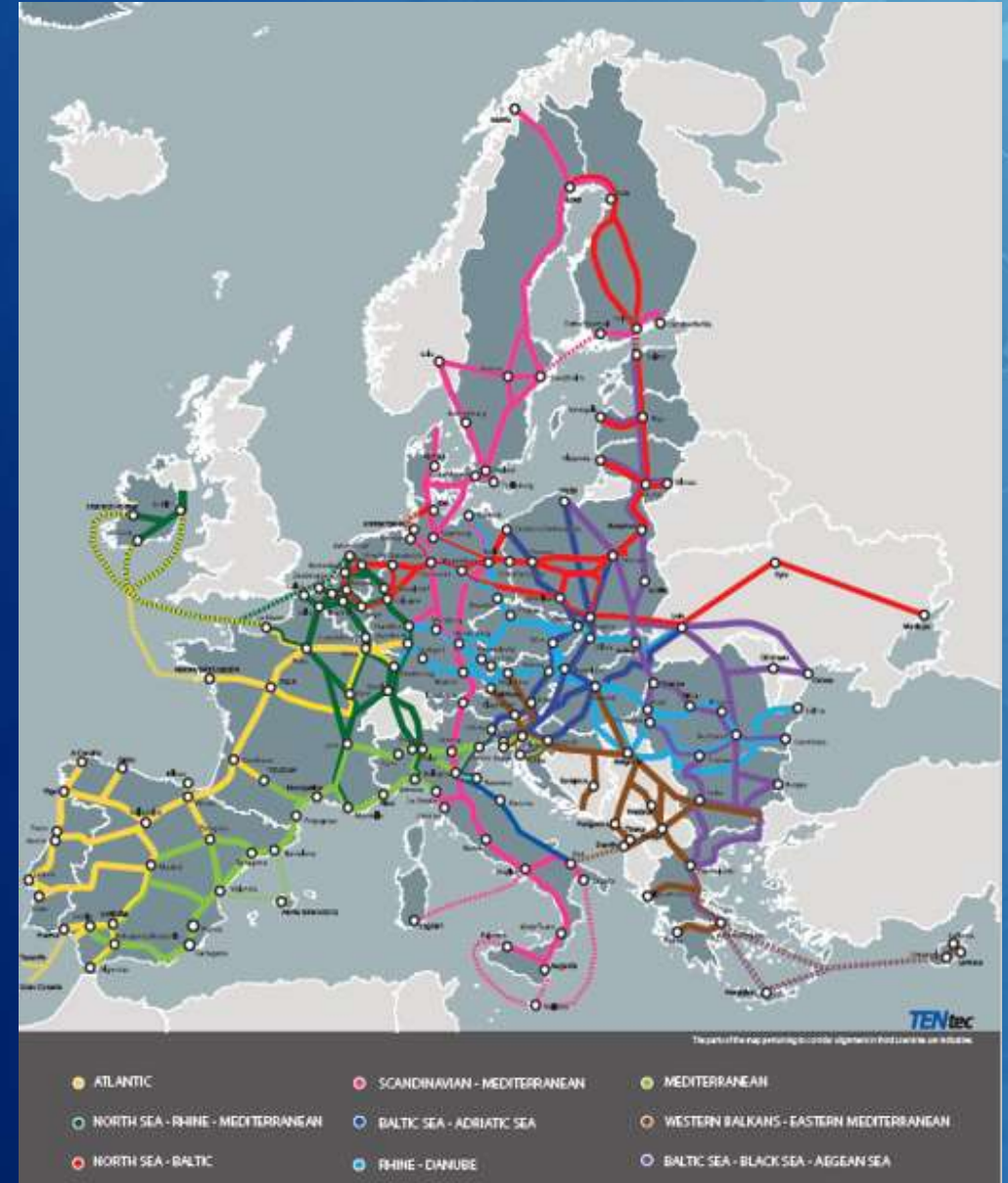
Rail Baltica VDC: Impact of OpenSource, RPA and LLM bots on BIM management process

Dmitri Garbuzenko
BIM and AIM Coordinator
RB Rail AS

16.05.2024

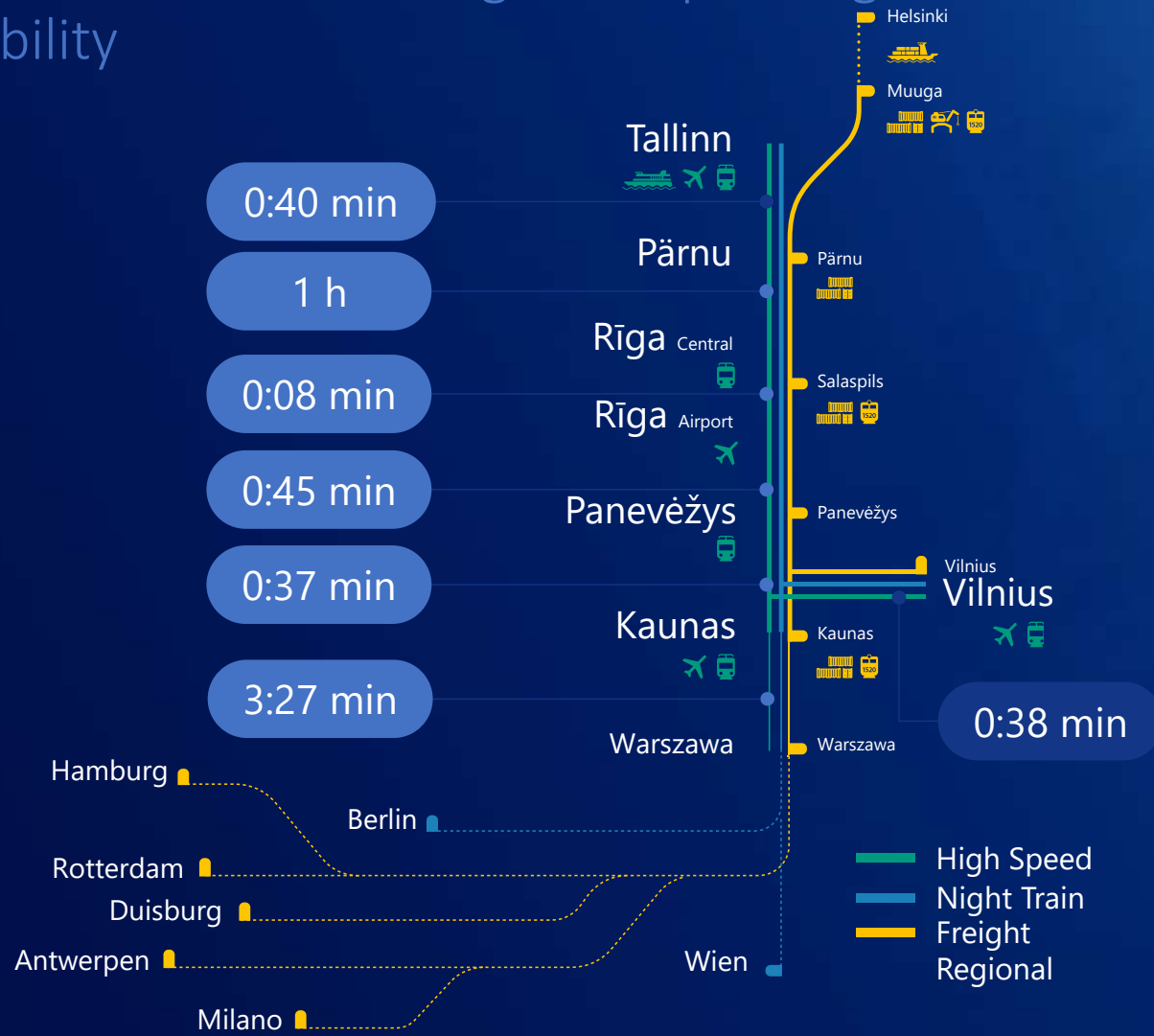
Missing link for EU market integration and a key component in connecting the Baltic and Black Sea regions for improved transportation and economic integration

- Part of the North Sea - Baltic Sea TEN-T corridor and part of the Baltic Sea - Black Sea - Aegean Sea TEN-T corridor*
- Bridging a missing transport link by 2030
- Delivering EU, regional and national ambitions
- Best-practice learning, building and sharing
- Geopolitical obligation, not just a necessity



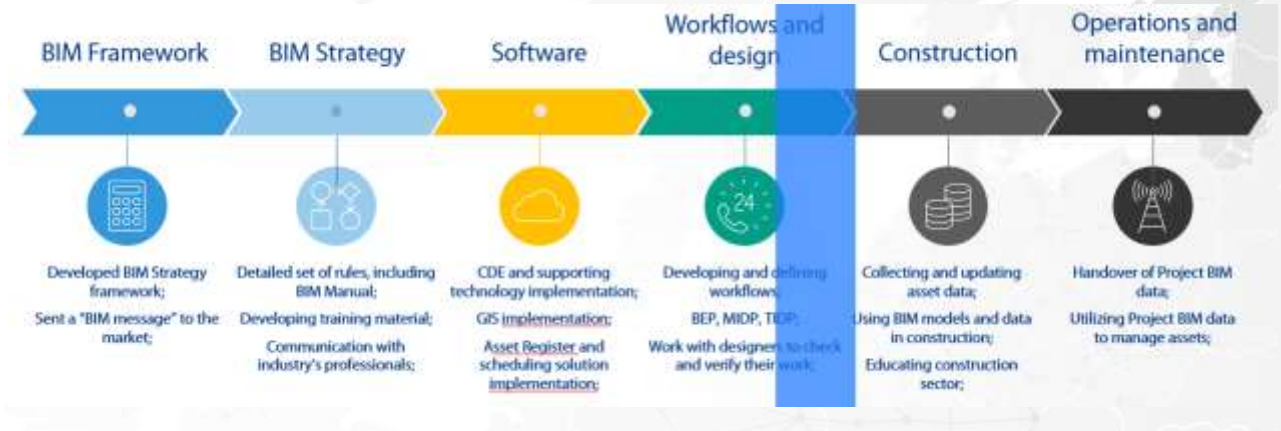
*According to 5/12/2022 General Agreement of the EU TTE Minister's Council

A new standard for freight and passenger 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 entering Construction phase



**GIS
Public
Map**

RB Rail BIM Team



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New paradigm: Citizen Development



Not an IT specialist (such as an engineer, architect, or builder) with little or no programming experience, but who creates applications using technology and processes approved by the IT department.



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```
QEXvsDD.ipynb
[1]: import pandas as pd
import os

dDrop_excel = 'dd.xlsx'
all_qex_xls = []
path = os.getcwd()
files = os.listdir(path)
for i in files:
    if i.startswith("qex"):
        all_qex_xls.append(i)
print(all_qex_xls)

dfs = []
for file in all_qex_xls:
    dfs.append(pd.read_excel(file))
merged_qexs = pd.concat(dfs)
header_qex = merged_qexs.iloc[11]
qex_df1 = pd.DataFrame(merged_qexs.values[1:], columns=header_qex)
qex_cleaned = qex_df1[["Object ID", "Qty", "Unit", "VolSysZone"]]
qex_cleaned.rename(columns={'Object ID': 'RBR-Object ID'}, inplace=True)
qex_cleaned.rename(columns={'VolSysZone': 'RBR-Vol_sys_zone'}, inplace=True)
qex = qex_cleaned.fillna(0)
qex.drop(qex.loc[qex["RBR-Object ID"]==0].index, inplace=True)
qex.drop(qex.loc[qex["Qty"]==0].index, inplace=True)

qex.to_excel("takealook.xlsx")
```


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ProjectWise DTD Deliverables 2023 9/25/2023 9:20:02 AM

Reset Filters

Deliverables Table 2023							
DS-abbr	reviewer...	Department	Package Name	Review Du...	Review Da...	Review deadline status	
EE-D01	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
EE-D02	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
EE-D03	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
LT-D01	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
LT-D02	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
LV-D01	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
LV-D02	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
LV-D03	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/
LV-D04	DPS4_MD_BP4_Jarvakand-Kergu_BR1320_v2 [DPS4-04]	02.10.2023		Pending, on time	https://z/1444453/

Team

Reviewers

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Reporting

VBA and Python script production

Custom GPTs for text based tasks



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QUESTIONS

www.railbaltica.org