Interreg Baltic Sea Region

Co-funded by the European Union

SMART GREEN MOBILITY
UrbFRail

Revitalisation of Inner-Urban Freight Rail Hubs - UrbFRail

Final Conference | Online | 23 January 2025

interreg-baltic.eu/project/urbfrail

UrbFRail

- Project duration: 08/2023 – 01/2025
- Objective:
    - Shifting goods from road to rail and making last-mile transport more sustainable
- Focus:
    - Support the development of inner-city freight stations as combined transport facilities
- Results:
    - Screening Tool for evaluating the potential of inner-city rail freight stations
    - Development Tool for the development process of inner-city rail freight stations
    - Online learning platform

Project Partners

Germany

Senate Department
for Urban Mobility, Transport,
Climate Action and the Environment

BERLIN

(lead partner)

Poland

Politechnika Warszawska
Warsaw University of Technology

Górnośląsko
–Zagłębiowska
Metropolia

Sweden

Stockholms
stad

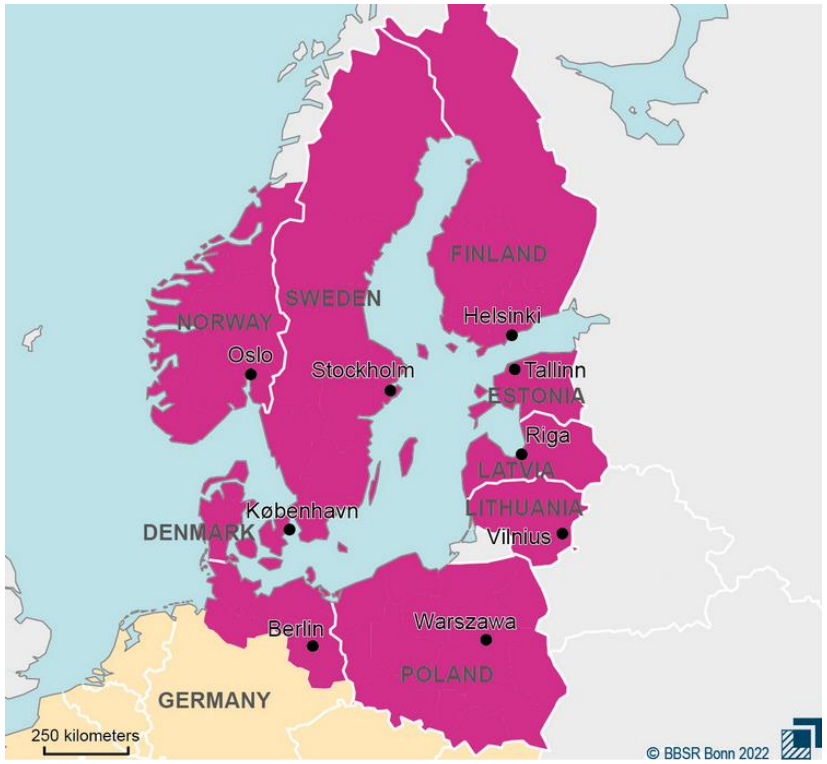
TRAFIKVERKET

RAIL SWEDEN

KTH
VETENSKAP
OCH KONST

Interreg Baltic Sea Region

- EU funding programme with a focus on the Baltic Sea region
- 2021 - 2027 eight EU member states (Denmark, Germany, Estonia, Finland, Latvia, Lithuania, Poland, Sweden) and Norway involved
- Consortium of at least three partners from three different countries
- ‘Lead Partner’ takes over the management of the project partnership
- ‘Small projects’ with simplified rules
- Funding rate: 80 %



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Moderator

Final Conference | 23/01/2025
Anna Björkman | Rail Sweden at Lindholmen Science Park

interreg-baltic.eu/project/urbfrail

Agenda

10:00	**Welcome**
10:15	**The concept of inner-urban freight rail hubs** **Dr. Julius Menge**, Berlin Senate Department for Mobility, Transport, Climate Protection and the Environment
10:40	**How to find and develop inner-urban freight rail hubs? The UrbFRail screening and the development tools** **Maciej Śmieszek**, Warsaw University of Technology **Steve Danesch**, Berlin Senate Department for Mobility, Transport, Climate Protection and the Environment
11:00	**The Stockholm case: Learnings when applying the screening and development tool** **Ludvig Elgström**, Swedish Transport Administration
11:20	**Understanding the UrbFRail approach** Q&A-session to answer participant‘s questions
11:40	**Concluding remarks** **Victoria Herslöf,** City of Stockholm **Marcin Domański,** Metropolia GZM **Dr. Julius Menge**, Berlin Senate Department for Mobility, Transport, Climate Protection and the Environment **Behzad Kornejad**, KTH **Dr. Andrzej Kochan**, Warsaw University of Technology
11:55	**Closure of the online expert workshop**

Poll#1: Getting an impression of the participating community

- Where are you from?
- Which kind of institution are you representing?
- How much do you work with rail freight today?

Join!

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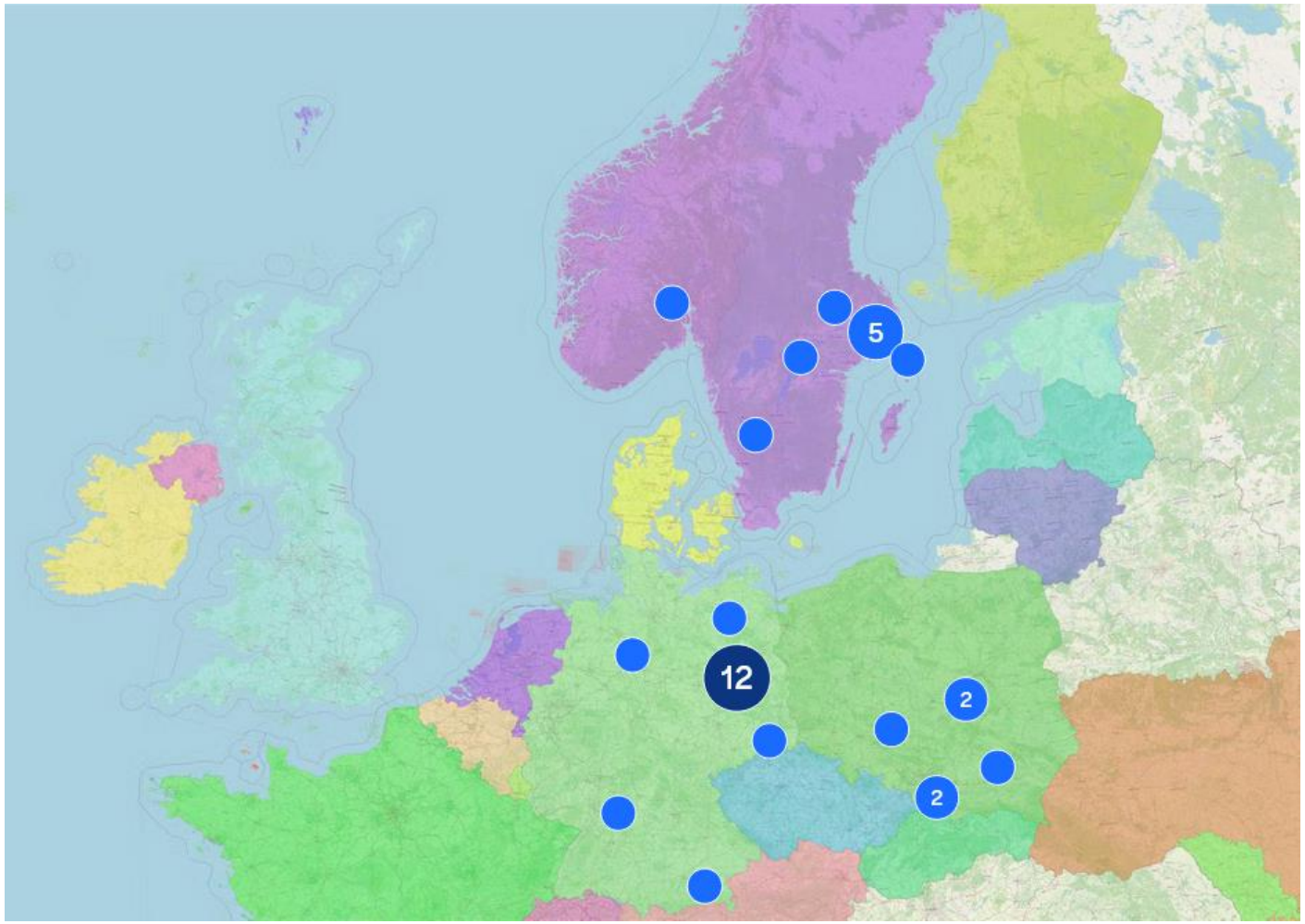
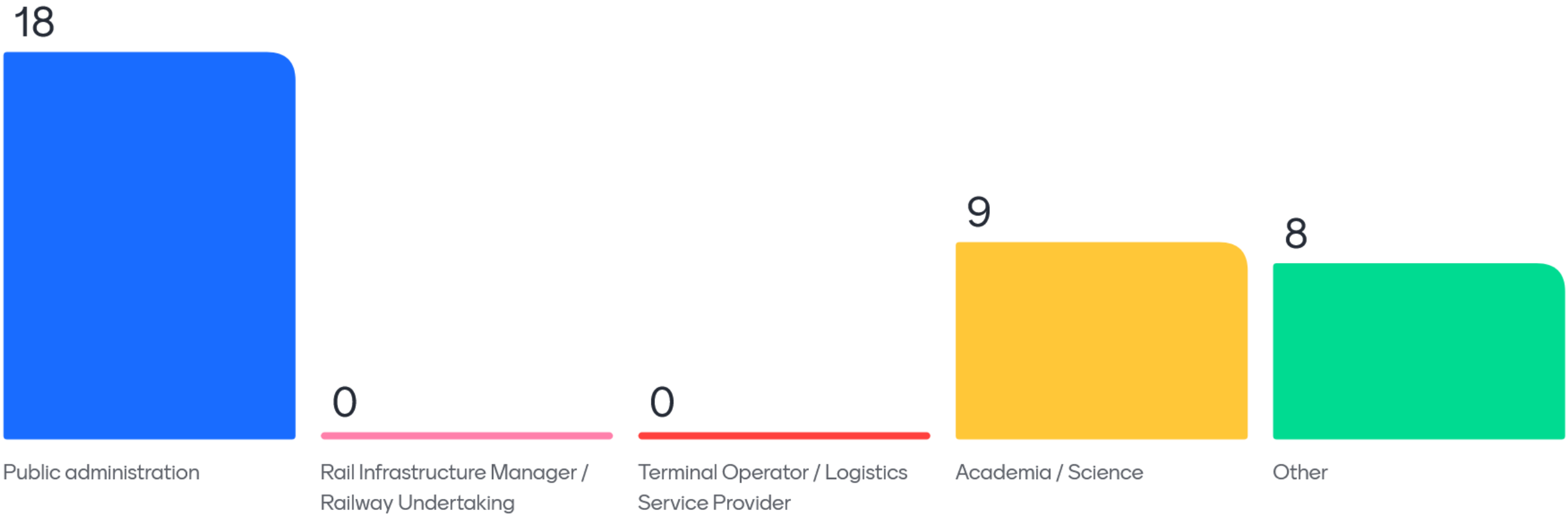
Find link in **chat** or
use **QR-code**

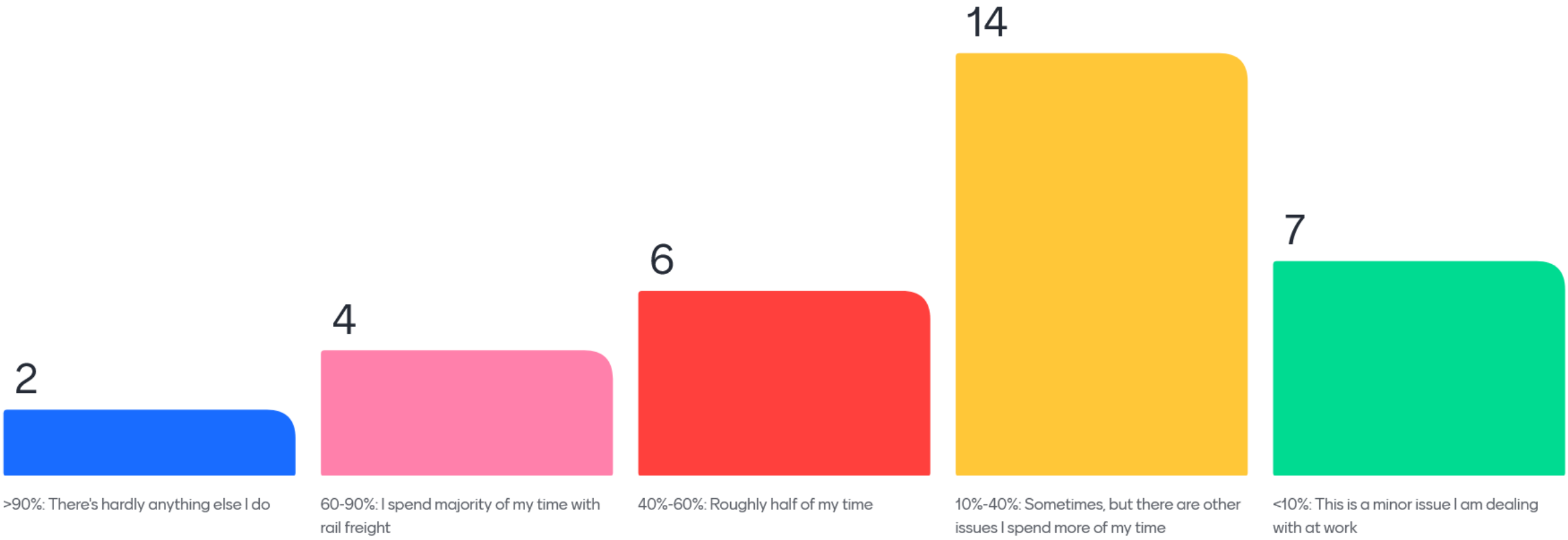
Where are you from?



Which kind of institution you're representing?



How much do you work with rail freight today?



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The concept of inner-urban freight rail hubs

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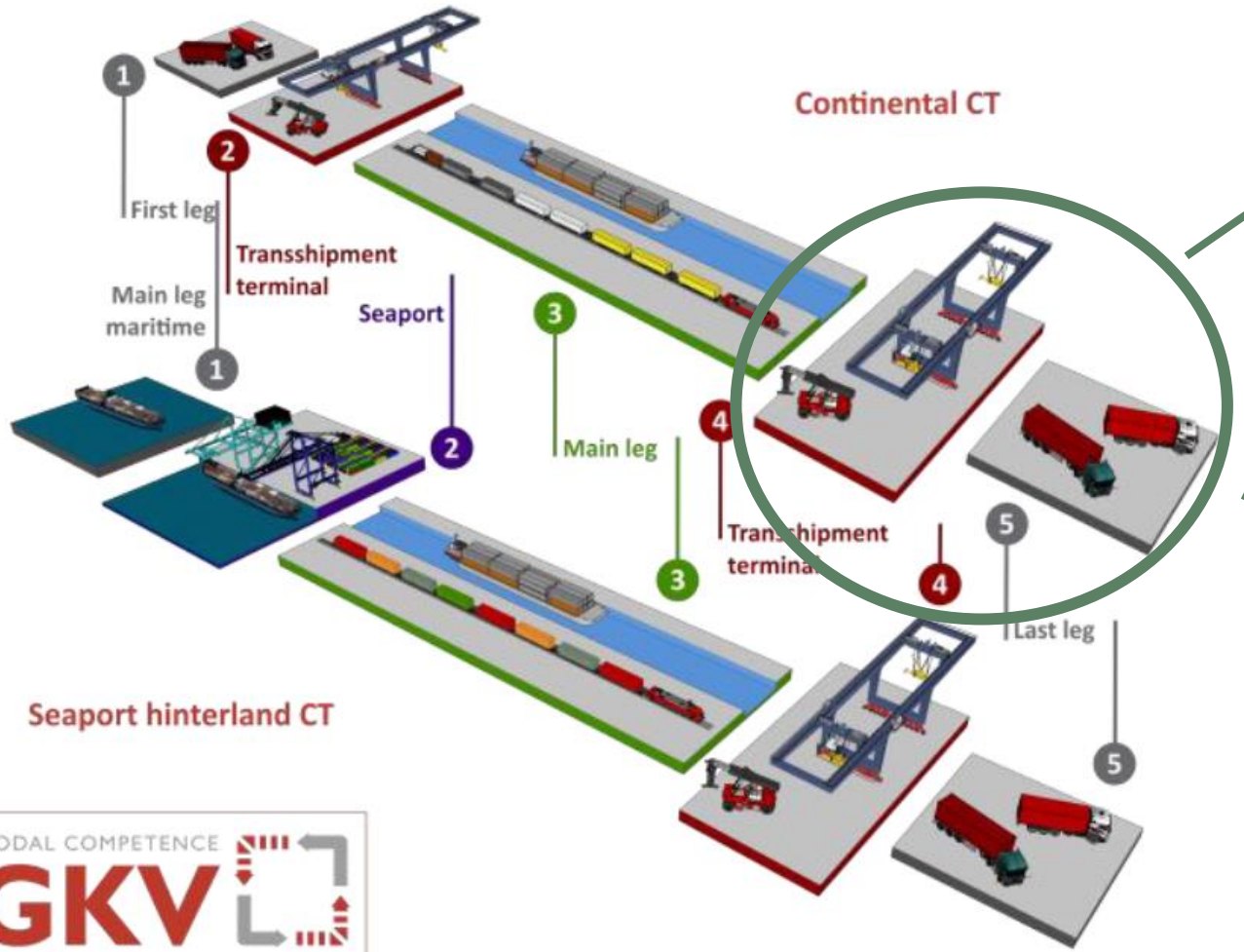
Dr. Julius Menge | Berlin Senate Department for Mobility, Transport, Climate Protection and the Environment

interreg-baltic.eu/project/urbfrail

Shifting road to rail!?!

Combined Transport



Location around urban centers

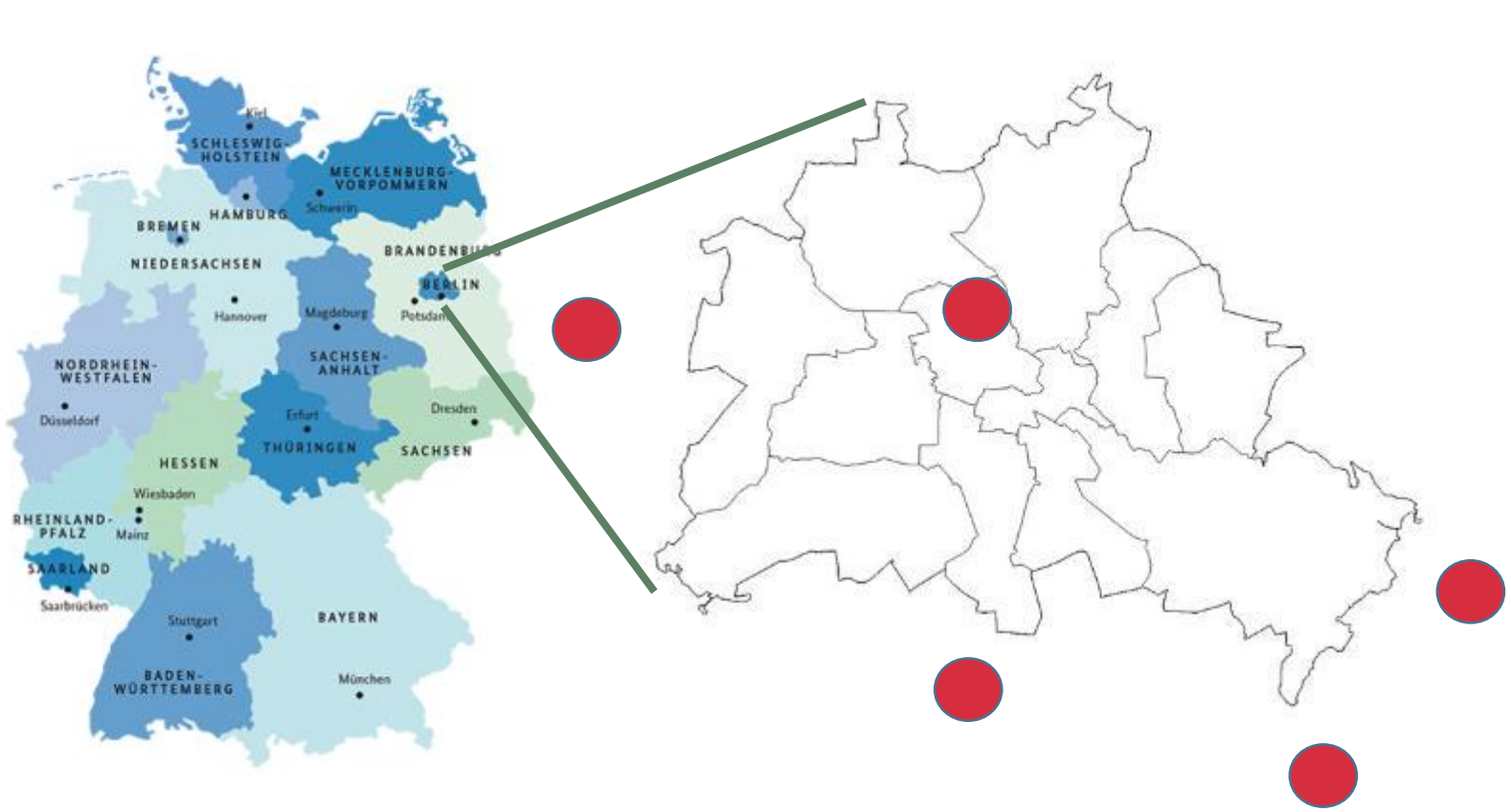
- Major share of goods directed towards the urban center
- Heavy goods vehicles on limited urban infrastructure elements

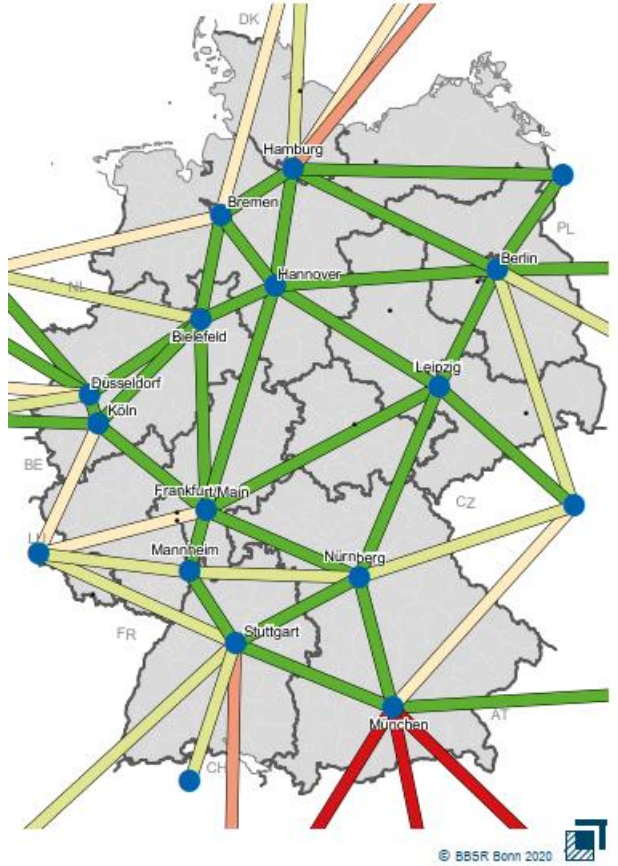
Location in urban centers

- Goods for the urban center get distributed right there
- Smaller / different vehicles possible
- Broader use of urban infrastructure elements
- Specific (location based) challenges

INTERMODAL COMPETENCE SGKV

Why is Berlin interested in the topic?





Freight rail hub

Source: Raumordnungsbericht 2021, BBR

Re-Activation – What´s that?

Activation of an urban rail freight logistic hub (transshipment facility):

- Process of establishing and commencing operations at a specific location – with a rail focus
- Initiating rail freight activities in an area that was previously unused for this purpose,
- Can include repurposing existing railway infrastructure

Reactivation:

- Involves reviving an urban rail freight hub (transshipment facility) that has fallen into disuse or is being underutilized
- Includes updating, refurbishing, or expanding the existing infrastructure.

Why should we (re-)activate? (I)

Reduced traffic congestion

- Shifting freight transport from road to rail reduces the number of heavy vehicles in urban areas.

Advantages for the environment

- Rail transport is generally more fuel-efficient
- Fully electrified rail freight transport means almost zero emissions (contribution to better air quality and a lower carbon footprint)

Urban development and revitalization

- (Re-)Activation of rail freight hubs (transshipment facilities) can stimulate urban development (upgrade areas, create jobs, boost local economy)

Why should we (re-)activate? (II)

Improved logistics and supply chain management

- Rail freight has the potential to offer more predictable and reliable transport operations than road transport
- Increased logistical efficiency

Economic efficiency

- Rail can transport large quantities of goods over long distances at lower costs (compared to road transport)
- Potential cost savings for companies and the economy.

One vision – two different tools

Tools that enable planners to evaluate suitable areas for freight stations and to initiate their (re-)activation in cooperation with various stakeholders.

Screening Tool to assess the potential of former freight station sites for development into inner-city freight stations.

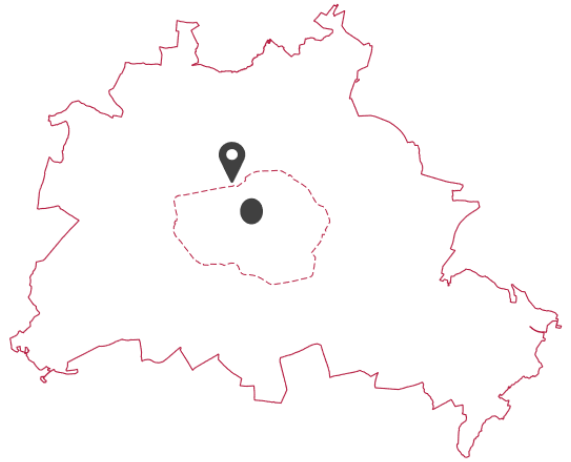
Web-based application to provide an automated response on the potential feasibility of developing a freight transport hub.

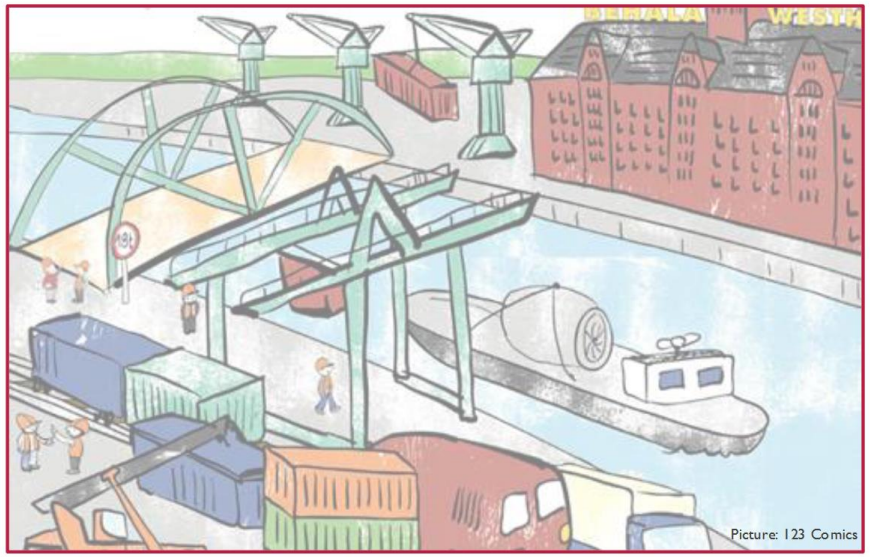
Development Tool to guide urban and transport planners through a development process for urban freight hubs.

Joint development with the involvement of experts and practitioners from the partner countries.

Berlin Westhafen - a valuable example to learn from

- Located at the heart of the city, only 3 km as the bird flies to the national parliament
- Largest port in Berlin covering an area of 43 ha.
- 2 port basins, container terminal, crane and rail systems as well as open-air storage, silos and halls with logistics services
- Center for modern freight transport and applied energy transition





Westhafen

1923

Berlin's industrialisation, Westhafen opened

1950

The Westhafen was rebuilt after the Second World War, as 60 % of the harbour facilities had been destroyed.

2001

Transformation and reactivation phase:

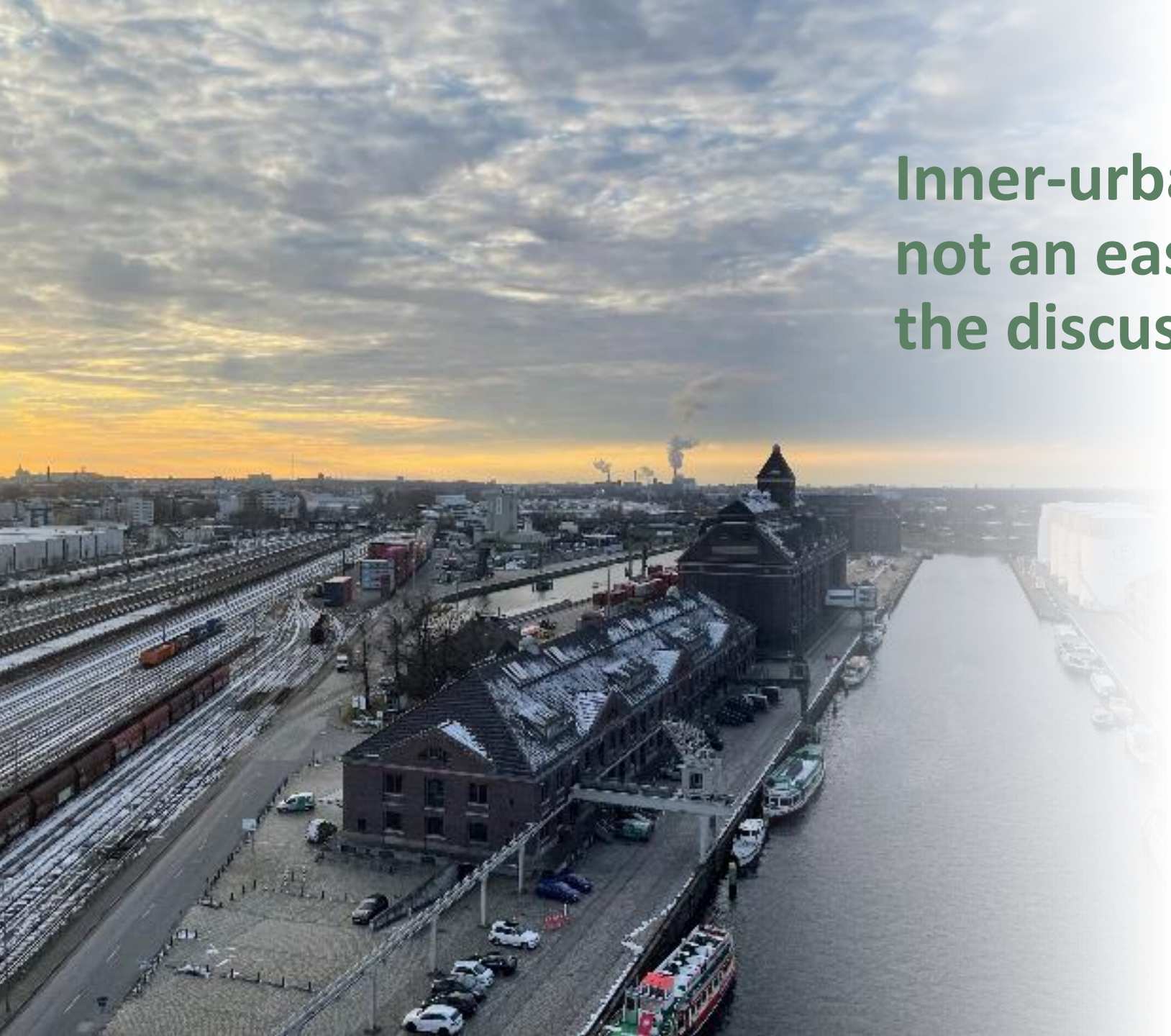
- One of three harbour basins filled
- container loading station as part of the Berlin harbour concept.

Westhafen

Today

- Number of loading tracks: 2x350 m
- Total length of the loading tracks: 700 m
- BEHALA offers regional rail transport with its own locomotives, rail operator and rail infrastructure company.
- Every day, container block trains from North Rhine-Westphalia and port hinterland traffic from Hamburg/Bremerhaven arrive at Westhafen: total throughput in 2022 was almost 140,000 TEU.
- Last mile on the road gets closer to really being a “last mile” – reduced mileage and impact

© Behala



Inner-urban freight rail hubs – not an easy task, but worth the discussion…

… and with the new tools provided by UrbFRail its easier to start the discussion and exchange knowledge with European colleagues.

Thank you

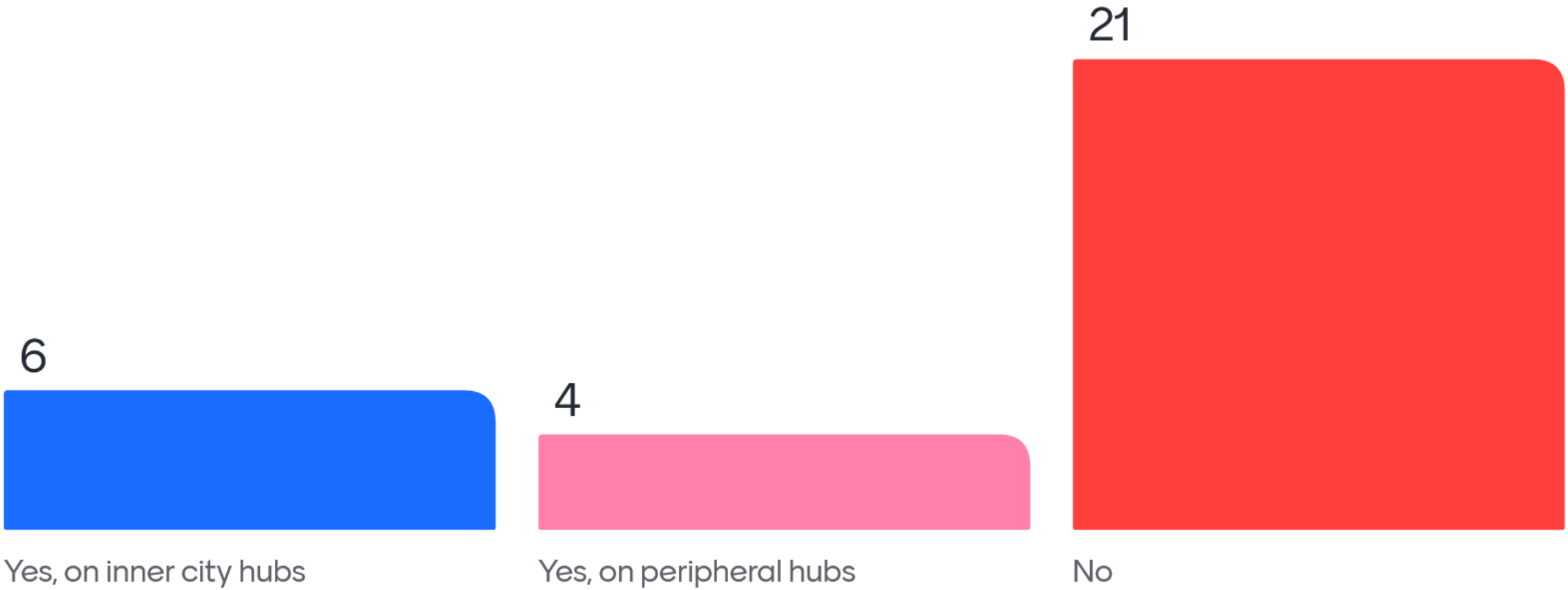
Poll#2: Relevance of inner-urban freight rail hubs

- Do you already work on developing freight rail hubs?
- What are the most crucial challenges to address with regards to inner-urban freight rail hubs?
- Why would you consider urban freight rail hubs relevant for urban mobility development?

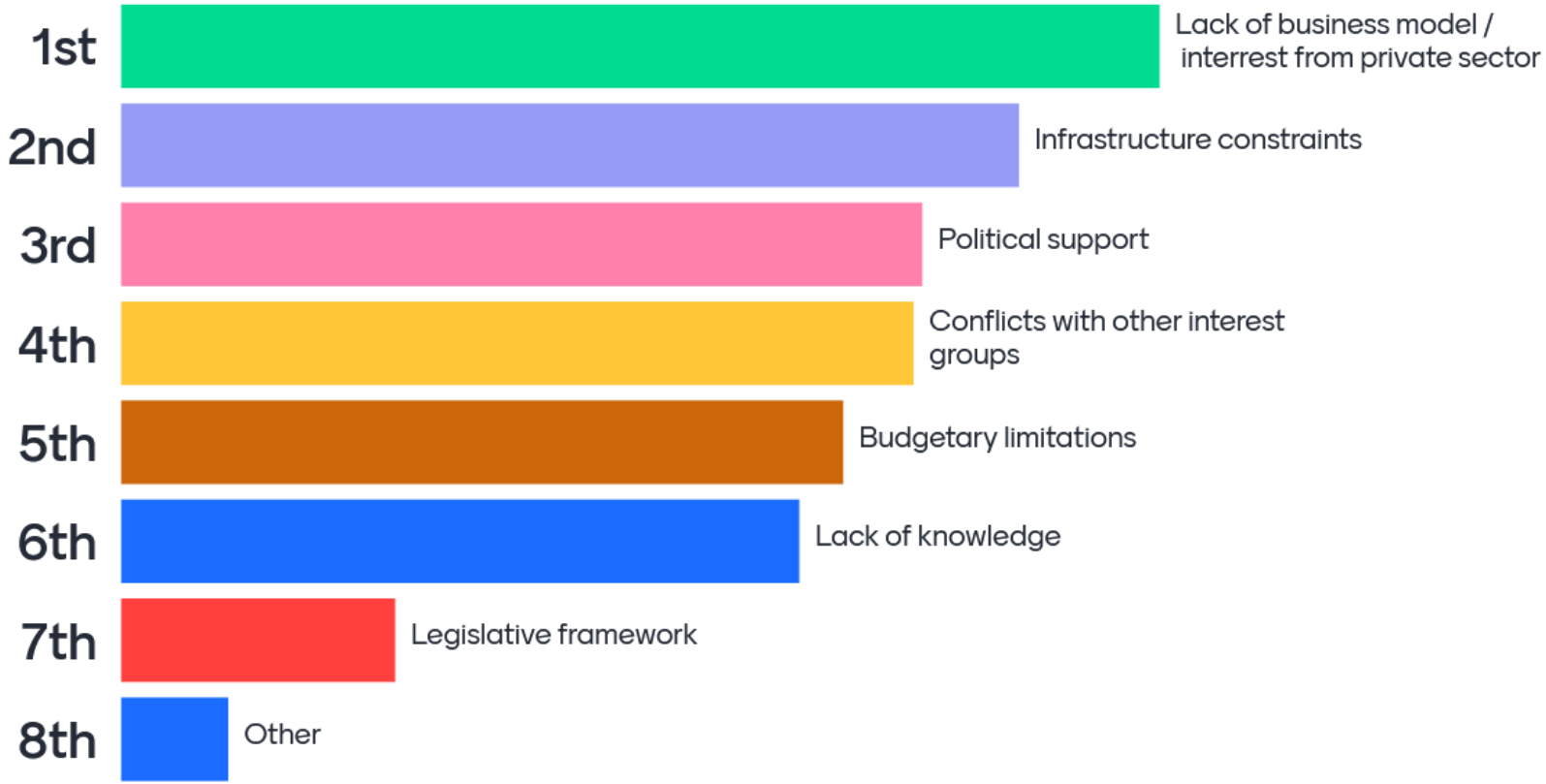
Join!

menti.com | 6412 0904
Find link in **chat** or use **QR-code**

Do you already work on developing freight rail hubs?



What are the most crucial challenges to address with regards to inner-urban freight rail hubs?



Why would you consider urban freight rail hubs relevant for urban mobility development?

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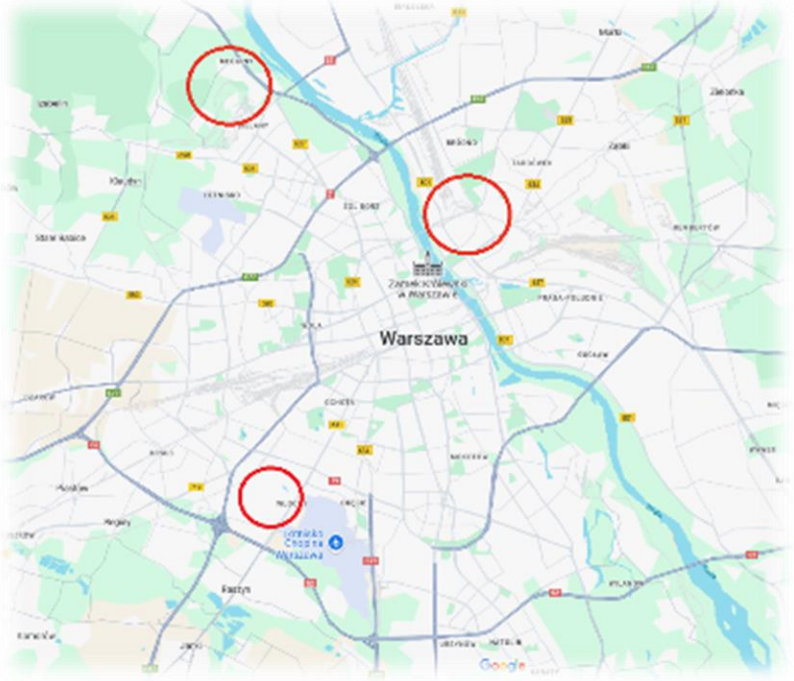
The UrbFRail Screening Tool

Final Conference | 23/01/2025
Maciej Śmieszek | Warsaw University of Technology

interreg-baltic.eu/project/urbfrail

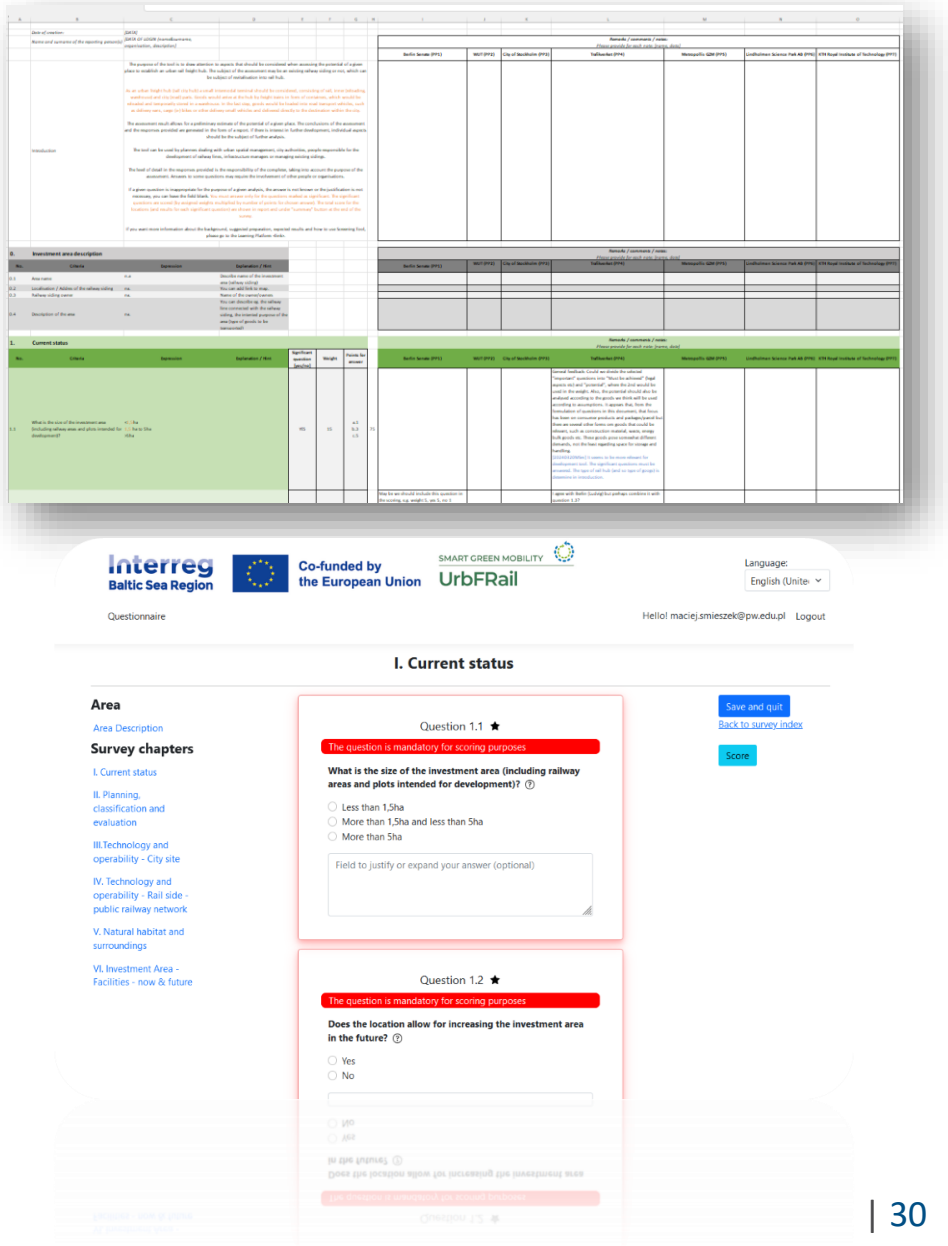
Purpose of the Screening Tool

- Where are potential areas to establish an inner-city rail freight hub?
- What should we consider?
- What do we know about the area and surroundings?
- How to decide which location is worth to develop?



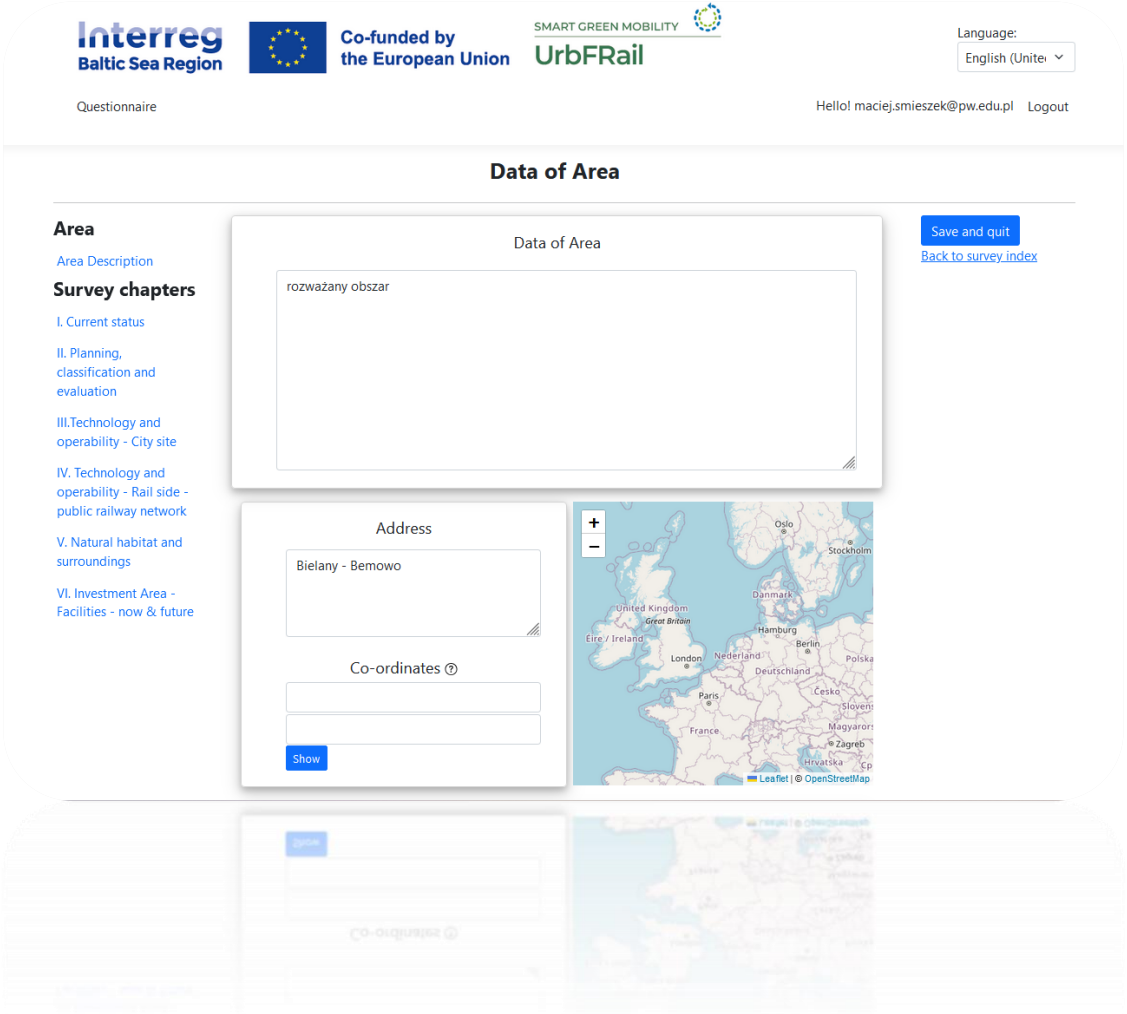
How was it created?

- Verification and updates of the initial list of questions proposed by Lead Partner (Berlin)
- Expert discussion and proposals of changes
- Discussions with potential users
  – representatives of cities;
- Updates accordingly to results of consultations



Content of the Screening Tool

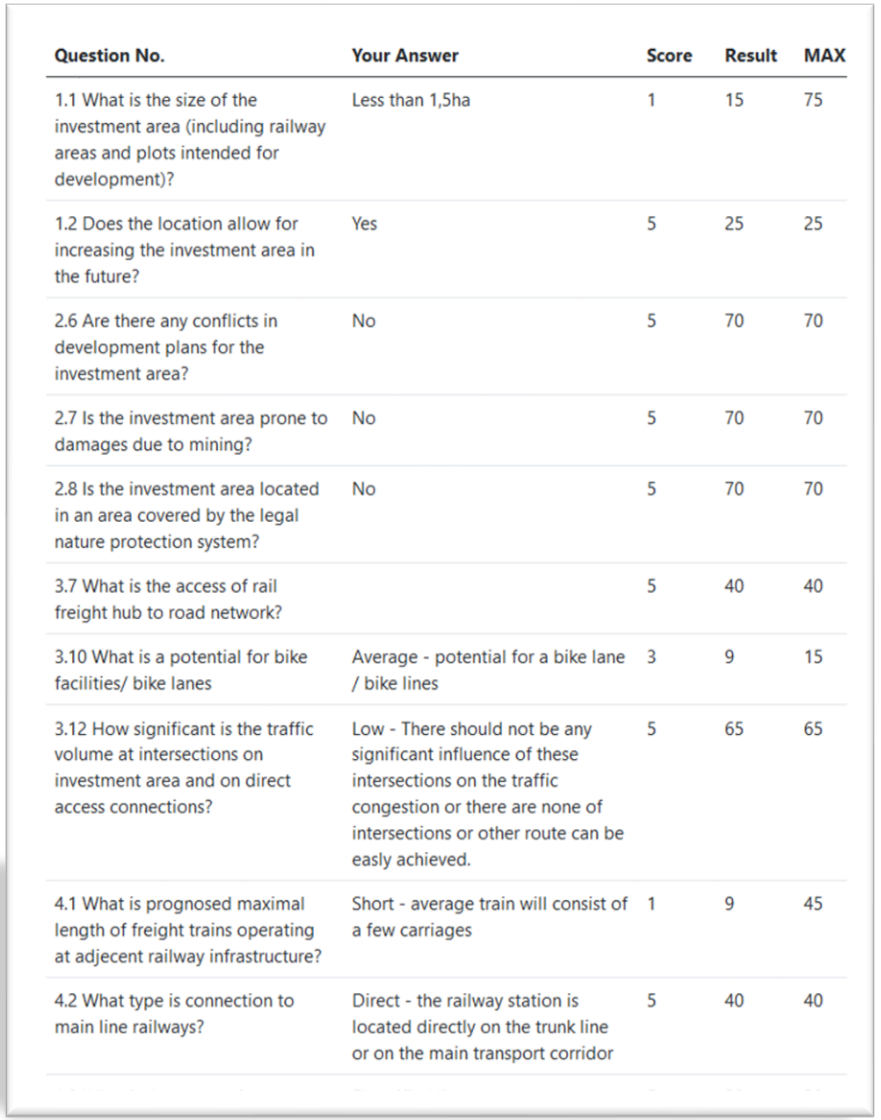
- Chapters
  - Current status
  - Planning, classification and evaluation
  - Technology and operability – city site
  - Technology and operability – rail side – public railway network
  - Natural habitat and surroundings
  - Investment area – facilities – now & future
- Different country approach
- Level of information details (additional remarks)
- Which location has a better potential?
  - Scoring system



How to use Screening Tool

- Online survey – link on Learning platform https://urbfrail.eu/#screen
- Registration
- Create a survey
- Necessary answers (mandatory questions)
- Scoring system
- Share survey with other registered users
- Iterative approach
- Reporting

  - *Screening Tool tutorial on Learning platform*



Question No.	Your Answer	Score	Result	MAX
1.1 What is the size of the investment area (including railway areas and plots intended for development)?	Less than 1,5ha	1	15	75
1.2 Does the location allow for increasing the investment area in the future?	Yes	5	25	25
2.6 Are there any conflicts in development plans for the investment area?	No	5	70	70
2.7 Is the investment area prone to damages due to mining?	No	5	70	70
2.8 Is the investment area located in an area covered by the legal nature protection system?	No	5	70	70
3.7 What is the access of rail freight hub to road network?		5	40	40
3.10 What is a potential for bike facilities/ bike lanes	Average - potential for a bike lane / bike lines	3	9	15
3.12 How significant is the traffic volume at intersections on investment area and on direct access connections?	Low - There should not be any significant influence of these intersections on the traffic congestion or there are none of intersections or other route can be easly achieved.	5	65	65
4.1 What is prognosed maximal length of freight trains operating at adjecent railway infrastructure?	Short - average train will consist of a few carriages	1	9	45
4.2 What type is connection to main line railways?	Direct - the railway station is located directly on the trunk line or on the main transport corridor	5	40	40

Thank you

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UrbFRail Development Tool

Final Conference | 23/01/2025

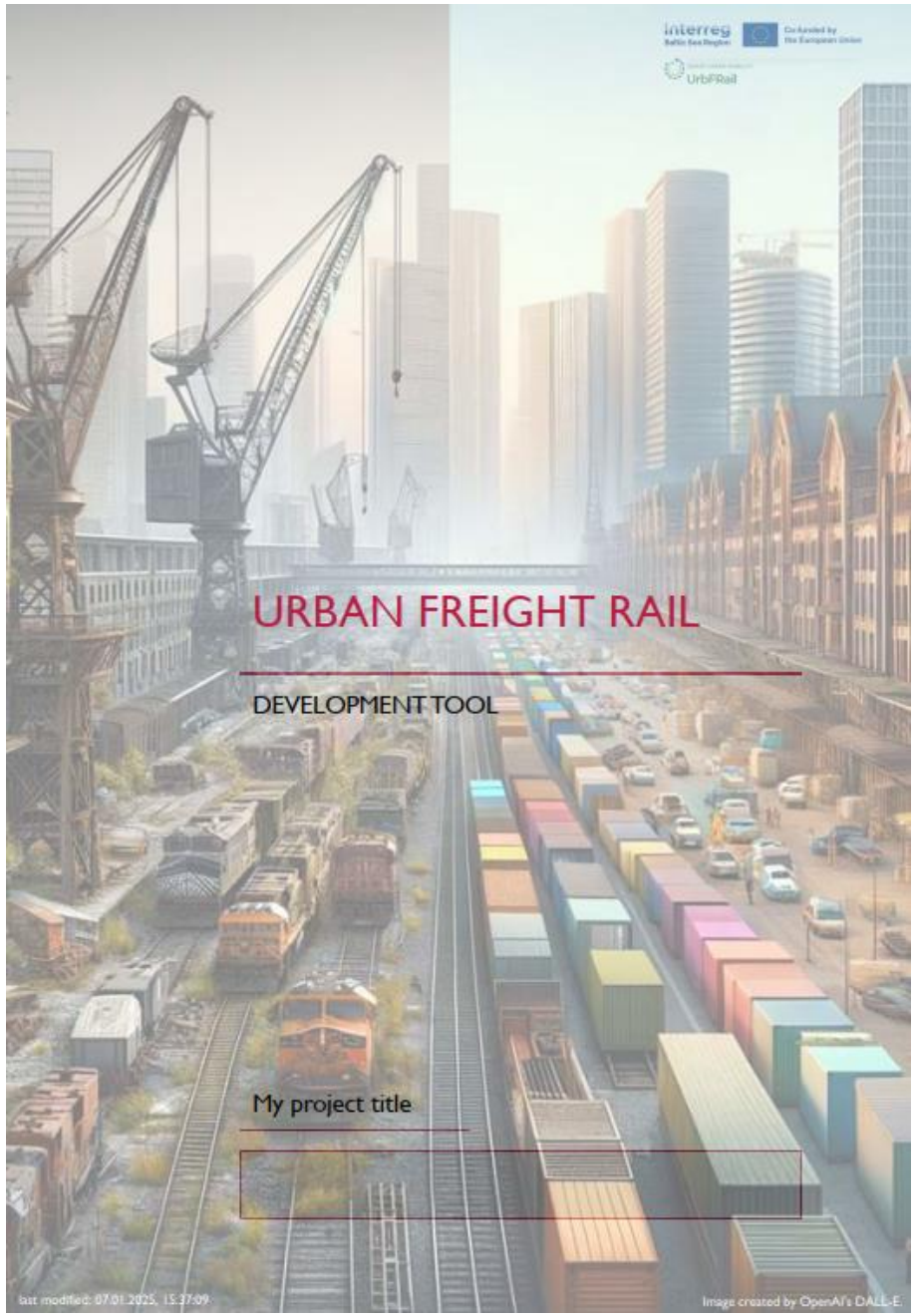
Steve Danesch | Berlin Senate Department for Mobility, Transport, Climate Protection and the Environment

interreg-baltic.eu/project/urbfrail

Development Tool

The tool is intended to…

- Support urban and transport planners
- Outline a systematic process for the reactivation of a freight station
- Make greater use of the more environmentally friendly rail transport



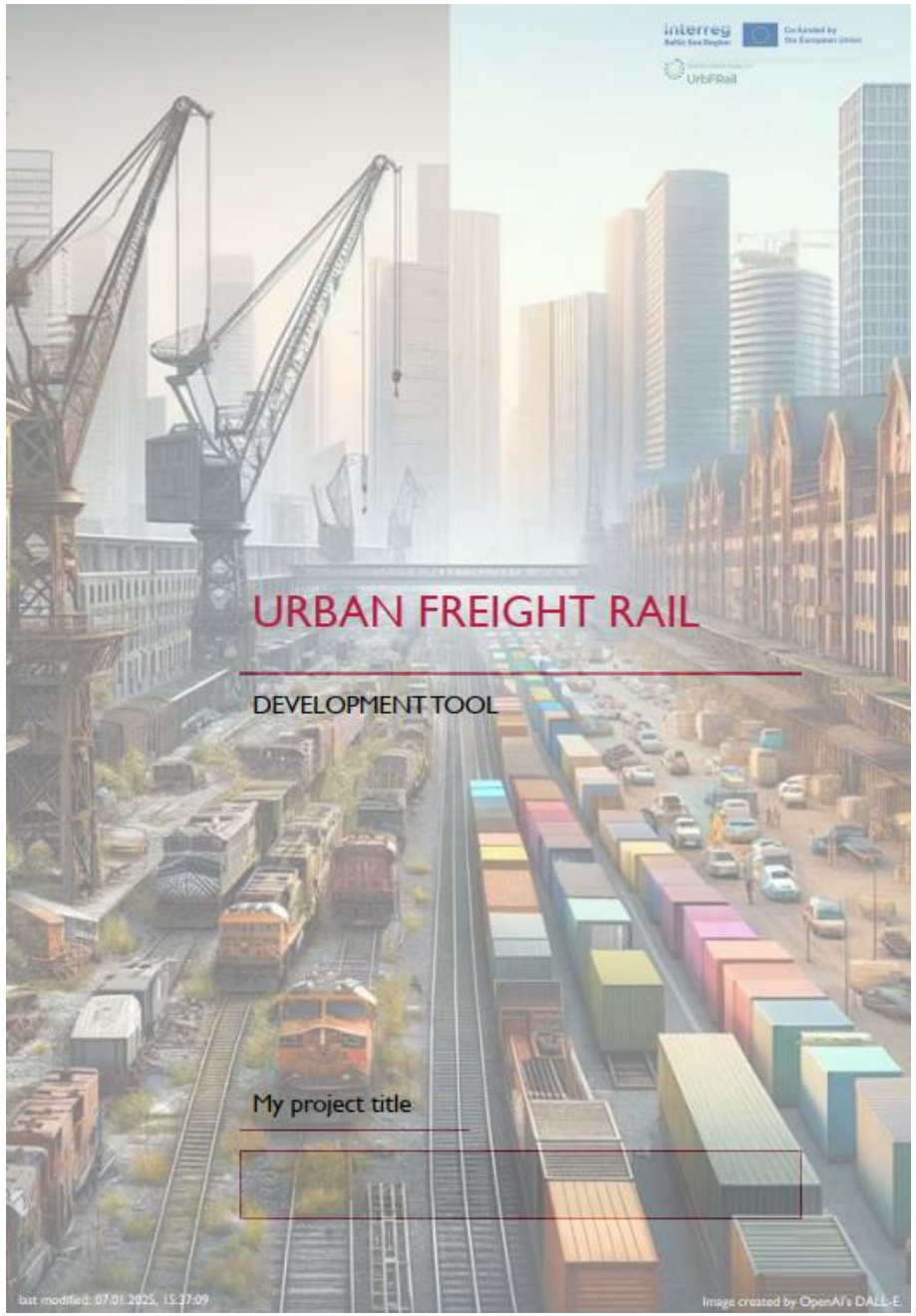
Development Tool

The tool was developed by…

DRAWING UP FRAMEWORK CONDITIONS

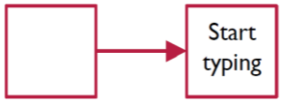
MAPPINGS AND TESTS IN PARTNERING CITIES AND

EVALUATING RESULTS IN PEER-REVIEW WORKSHOPS



Development Tool

Use it your way



Tool Parts

Knowledge base

Info & Ideas

Overviews

Best Practices

Checklists

Steps to follow

Things to consider

People to contact

Matrices Decisions trees

Guiding Questions

Classifications

Development Tool

Phase 1 – Preparation and Planning


Issues to address


Hints on the project team


Overview of stakeholders


Fillable contact list


Prepare participation


Local characteristics


Important regulations


Location analysis checklist


Status quo record sheet


Feasibility study


Checklist infra-structure planning


Weighing up financing ideas


Responsible authorities

Development Tool

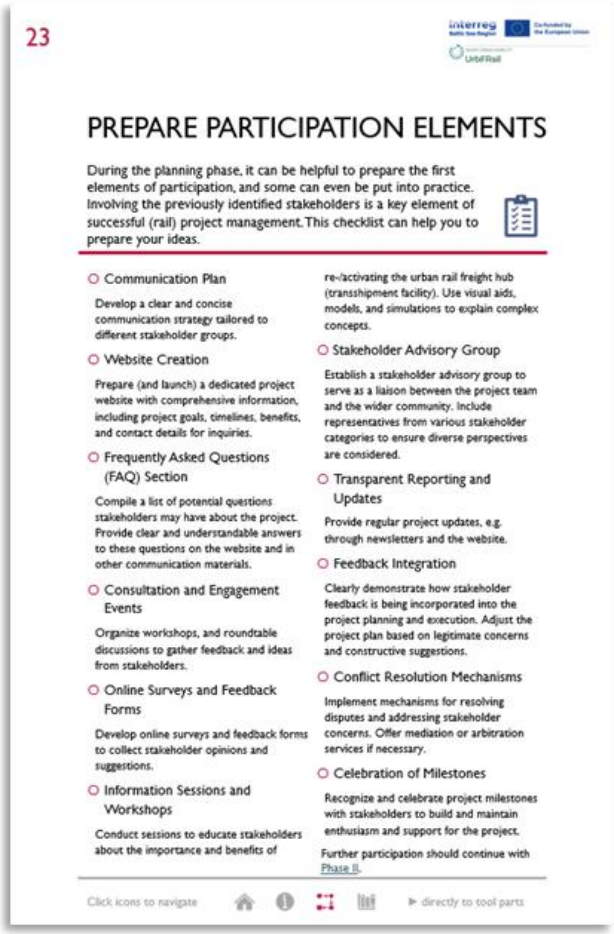
Stakeholders

- Planning and regulation
- Operations and Transport
- Economic stakeholders
- Other stakeholders

	Topics that need to be considered										
Stakeholders	Infrastructure	Transportation Vehicles	Transportation Units	Cargo	Financing and Funding	Legislation and Politics	Environment & Sustainability	Communication and PR	Community	Military and Defence	Civil Protection (dual Use area)
Planning and Regulation											
Public Authorities	X				X	X	X	X	X	X	X
Rail Infrastructure Manager	X					X	X		X	X	X
Owner of the land and adjoining properties	X					X			X	X	X
Operations and Transport											
Railway Companies	X	X				X					
Combined Transport Operators		X	X								
Freight Forwarders		X	X	X							
Terminal Operators	X		X								X
Vehicle Manufacturers		X									
Pallet and Packaging Providers			X								
Maintenance Service Providers	X	X									

Development tool

Participation



23

PREPARE PARTICIPATION ELEMENTS

During the planning phase, it can be helpful to prepare the first elements of participation, and some can even be put into practice. Involving the previously identified stakeholders is a key element of successful (rail) project management. This checklist can help you to prepare your ideas.

- Communication Plan
  Develop a clear and concise communication strategy tailored to different stakeholder groups.
- Website Creation
  Prepare (and launch) a dedicated project website with comprehensive information, including project goals, timelines, benefits, and contact details for inquiries.
- Frequently Asked Questions (FAQ) Section
  Compile a list of potential questions stakeholders may have about the project. Provide clear and understandable answers to these questions on the website and in other communication materials.
- Consultation and Engagement Events
  Organize workshops, and roundtable discussions to gather feedback and ideas from stakeholders.
- Online Surveys and Feedback Forms
  Develop online surveys and feedback forms to collect stakeholder opinions and suggestions.
- Information Sessions and Workshops
  Conduct sessions to educate stakeholders about the importance and benefits of re-/activating the urban rail freight hub (transshipment facility). Use visual aids, models, and simulations to explain complex concepts.
- Stakeholder Advisory Group
  Establish a stakeholder advisory group to serve as a liaison between the project team and the wider community. Include representatives from various stakeholder categories to ensure diverse perspectives are considered.
- Transparent Reporting and Updates
  Provide regular project updates, e.g. through newsletters and the website.
- Feedback Integration
  Clearly demonstrate how stakeholder feedback is being incorporated into the project planning and execution. Adjust the project plan based on legitimate concerns and constructive suggestions.
- Conflict Resolution Mechanisms
  Implement mechanisms for resolving disputes and addressing stakeholder concerns. Offer mediation or arbitration services if necessary.
- Celebration of Milestones
  Recognize and celebrate project milestones with stakeholders to build and maintain enthusiasm and support for the project.

Further participation should continue with Phase II.

Click icons to navigate ▶ directly to tool parts

- Communication Plan
- Website Creation
- Frequently Asked Questions (FAQ) Section
- Consultation and Engagement Events
- Online Surveys and Feedback Forms
- Information Sessions and Workshops
- Stakeholder Advisory Group
- Transparent Reporting and Updates
- Feedback Integration
- Conflict Resolution Mechanisms
- Celebration of Milestones

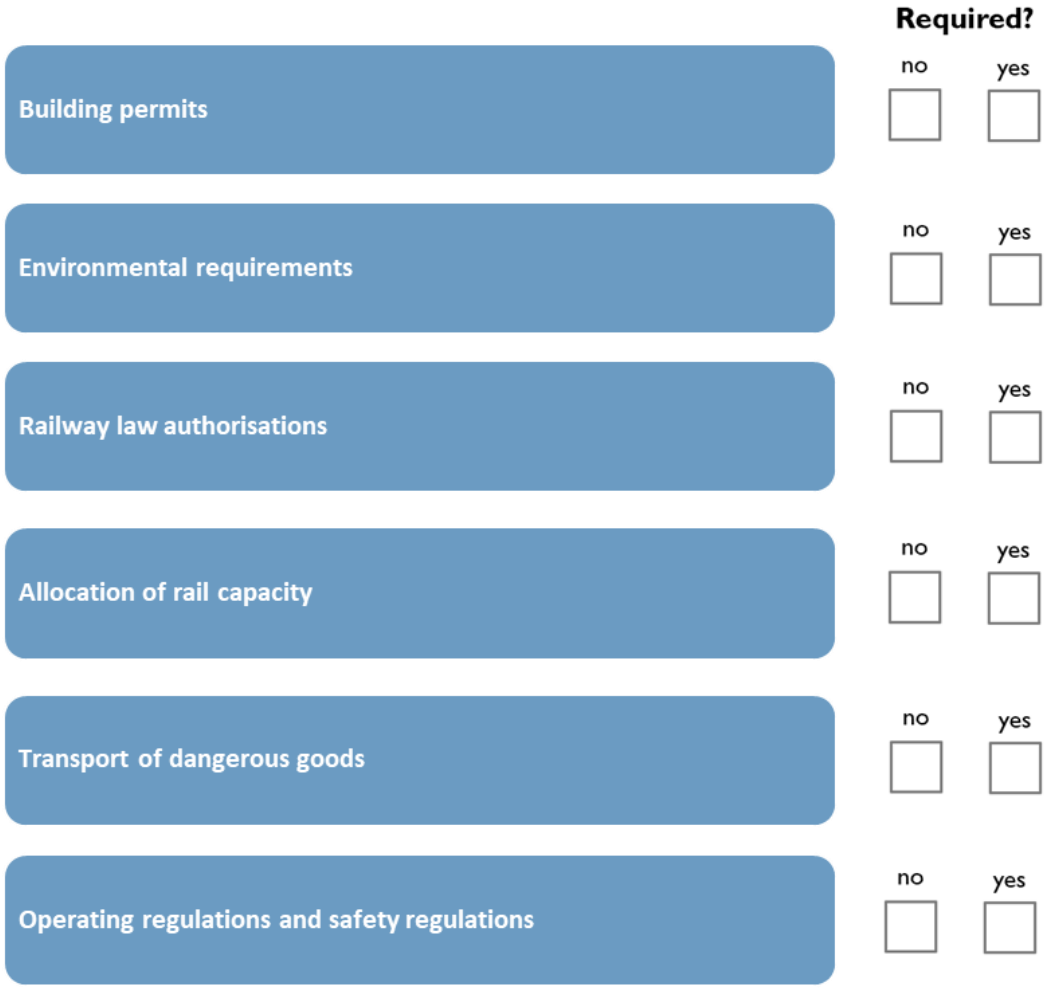
Development tool

Important Regulations

§Permits

§Regulations

§Authorizations



Development Tool

Location Analysis

- Proximity to other transportation routes
- Evaluation of excisting rail infrastructure
- Available land
- Compability with surrounding
- Market demand
- Environmental impact
- Local legal requirements
- Economic viability

Development Tool

Feasibility Study

Market demand

Infrastructure condition

Capacity and Scalability

Accessibility and connectivity

Technology integration

Regulatory compliance

Financial Viability

Development Tool

Market Demand Analysis

Development Tool

Financing Options

Financing Option	Advantages	Limitations
State Support (all levels)	• Non-repayable grants. Substantial funds for large projects. Possible additional support (e.g., technical expertise).	• Highly competitive. Strict eligibility and reporting requirements. Funding may be tied to specific outcomes or milestones.
Public-private partner-ships	• Leverages private sector efficiency. Risk-sharing between public and private entities. Access to private capital. Potential for faster project completion.	• Time-consuming contract negotiations. Reduced public control. Inflexible long-term commitments. Private profit motives may impact priorities.
Private Investment	• Significant capital. Additional business expertise and networks. Flexible investment terms.	• Expected return (ownership/profits sharing). Potential loss of control. Detailed due diligence processes.
Loans	• Widely available. Interest rates may be competitive and negotiated based on the project's creditworthiness and market conditions. Structured repayment schedules.	• Requires repayment with interest. Often requires collateral or guarantees. Approval based on credit assessment and project feasibility.
Bonds	• Large sums of money for major projects. Fixed interest rate. Attractive for long-term investors.	• Complex and costly issuance process. Long-term repayment commitment. Market conditions affect cost and demand.
Crowd-funding	• Validates public support and market demand. No equity loss or loans. Enhances community involvement.	• Suitable for smaller-scale projects. Success dependent on marketing. Potential platform fees and need for continuous updates.
Tax Credits or Incentives	• Reduces project costs. Encourages investment in specific areas. Supports long-term financial viability.	• Stringent qualification criteria. Limited scope and scale of benefits. Subject to policy or budget changes.

Development Tool

Support Measures

- Gouvernment support and framework conditions

Funding

Tax Incentatives

Regulatory Mesures

Planning Facilitation

Communication and collaboration

Development Tool

Authorities

Type of Approval/Permit	Responsible Authority/Agency
Building Permit	Local Planning or Building Authority
Environmental Impact Assessment (EIA)	Environmental Protection Agency or Ministry
Railway Operating License	National Railway Regulatory Authority
Rail Traffic Regulation	Ministry of Transport or Transportation Authority
Safety Certification	Railway Safety Authority
Land Use and Zoning Permit	Local Planning or Zoning Authority
Water and Soil Protection	Environmental Protection Agency or Ministry
Transport and Logistics Permits	Ministry of Transport or Transportation Authority
Customs and Import/Export	Customs Authority or Ministry of Finance
Hazardous Materials Handling	Environmental Protection Agency or Ministry
Occupational Safety	Ministry of Labor or Occupational Safety Agency

Development Tool

Phase 1 – Preparation and Planning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Hints on the project team


Overview of stakeholders


Fillable contact list


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Status quo record sheet


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Weighing up financing ideas


Responsible authorities

Further Reading

Learning Platform - https://urbfrail.eu/

Project background

Basic information on terminal infrastructure

Glossary

Success Story

Helpful links

Thank you

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Conclusions from Stockholm

Final Conference | 23/01/2025
Ludvig Elgström | Trafikverket

interreg-baltic.eu/project/urbfrail

Background – why inner-urban rail hubs?

- Congestion – an issue for both the public and businesses
- Stockholm city goal - reduction of road traffic by 30 % until 2030
- National objective to facilitate intermodal transport
- Existing underutilized areas for rail freight

Stockholm cases

Everybody on the same page…

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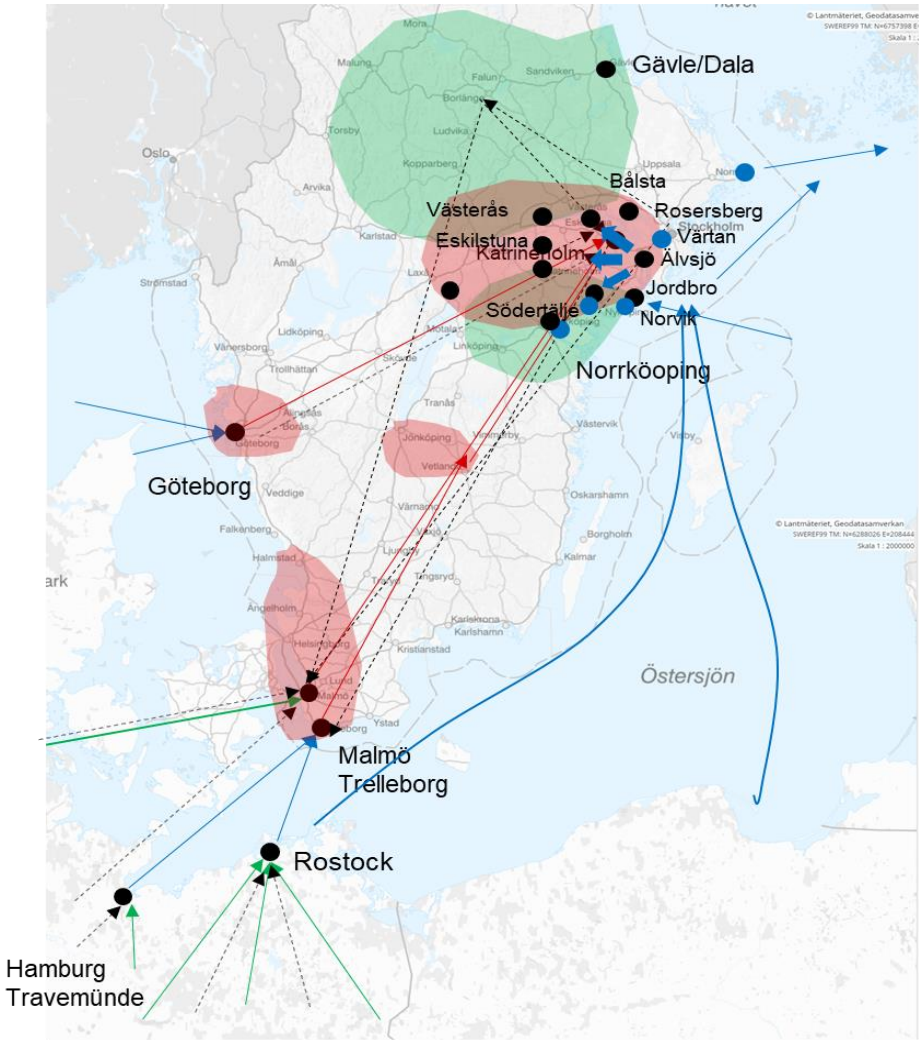
LOCAL CHARACTERISTICS

These characteristics are meant to support high level decision making and helps to focus away from details towards fundamental questions. Select a colour for an assessment (e.g. mark with an "X").

	no		yes
MARKET: Basic information on **market** (potential for transport capacity			
Industrial production of goods with a certain CT Affinity (see Glossar, contanerizable / transportable in loading unit)	X		
Consumption of goods with a certain CT affinity (contanerizable / transportable in loading unit)			X
AREA: Basic information on potential areas for re-/activation	no		yes
Available space for **activation** suitable for commercial use / handling		X	
Available space for **reactivation** already in use for commercial activities			X
INFRASTRUCTURE: Basic information on potential infrastructure for re-/activation	no		yes
Rail infrastructure in operation			X
Planning ongoing for infrastructure development			X
TRAFFIC: Basic information on potential capacity for re-/activation	no		yes
Rail infrastructure is able to take the (additional) required traffic volume (without major conflicts with other uses / residents)		X	
Road infrastructure is able to take the (additional) required traffic volume (without major conflicts with other uses / residents)		X	
LOCAL / REGIONAL POLITICAL GOODWILL: Basic information on potential pushes for re-/activation	no		yes
Problem identification and political awareness for need of more rail based cargo transport /handling			X
Initiatives existing / political drive for fostering rail transport		X	
Initiatives already in force (concepts, masterplans)		X	

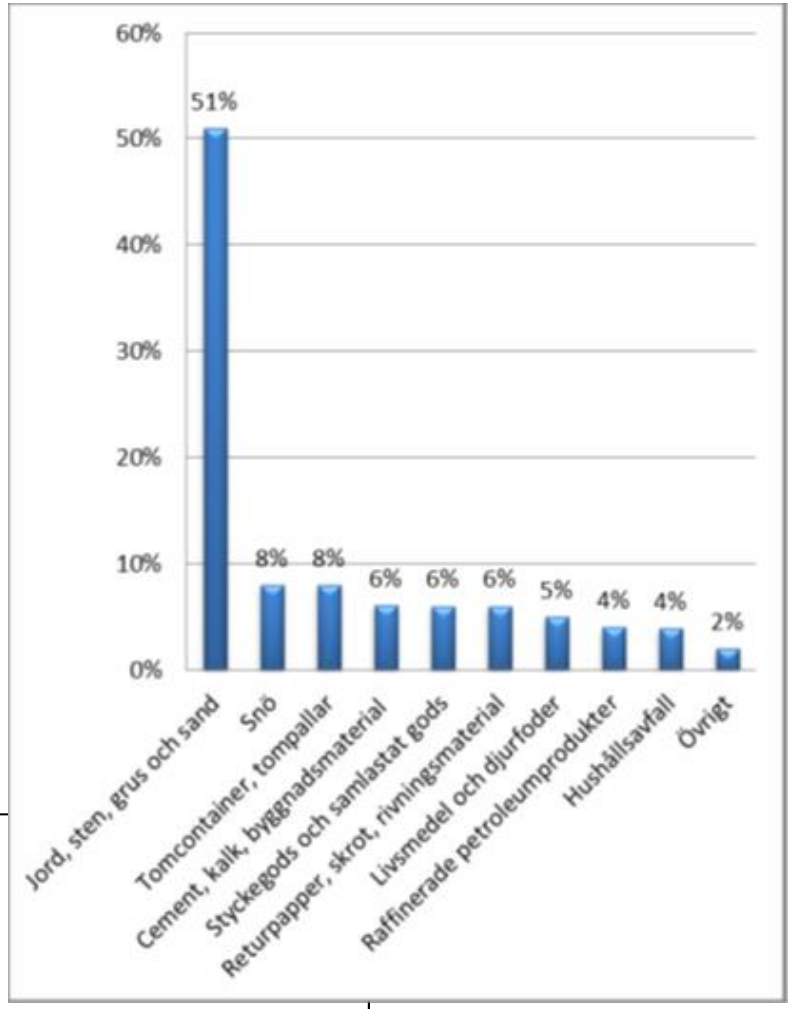
Click icons to navigate ▶ directly to tool parts

Understanding available business models…

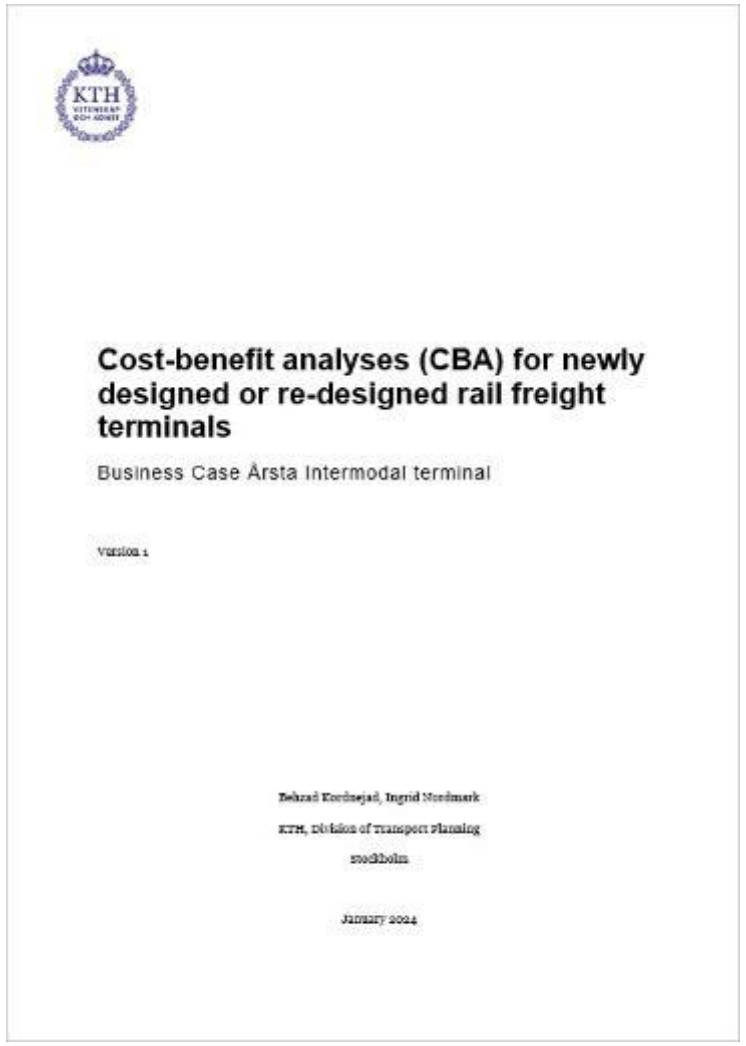


Central nodes
Import region
Export region
Cross-border rail
Cross-border shipping/ferry
Domestic rail
Road transport

Volume of goods (tons) in Stockholm



Cost/benefit perspective on development



Cost-benefit analyses (CBA) for newly designed or re-designed rail freight terminals

Business Case Årsta Intermodal terminal

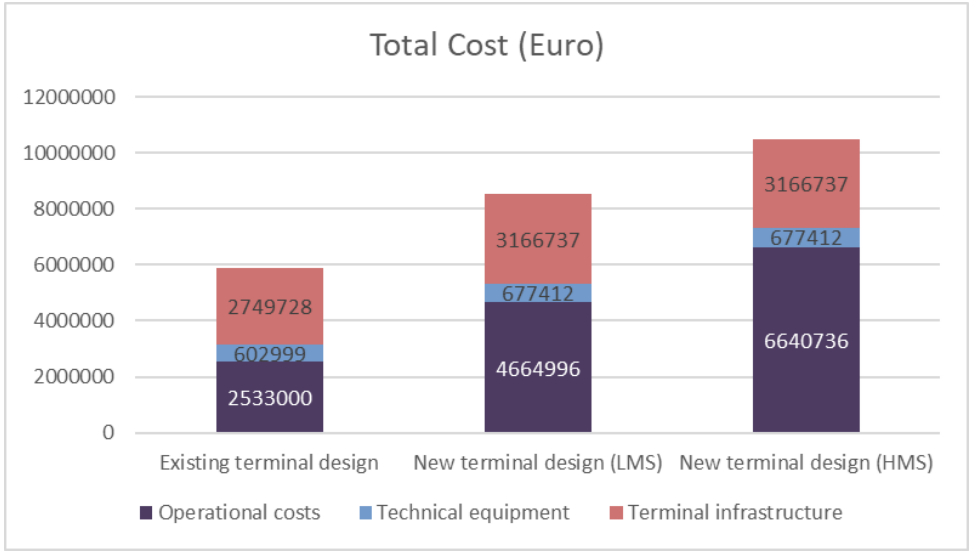
Version 1

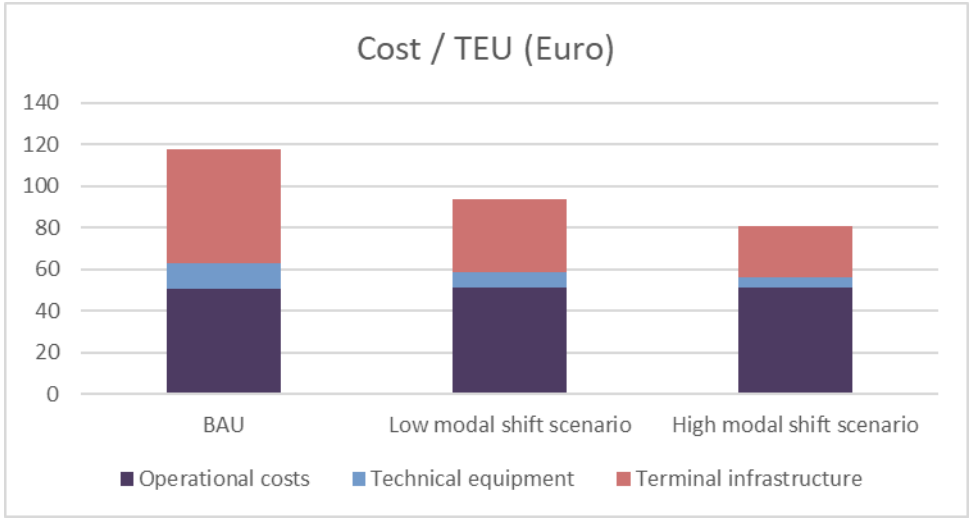
Behzad Kordnejad, Ingrid Nordmark

KTH, Division of Transport Planning

Stockholm

January 2024





Thank you

Q&A

Concluding remarks

Victoria Herslöf, City of Stockholm
Marcin Domański, Metropolia GZM
Dr. Julius Menge, Berlin Senate Department for Mobility, Transport, Climate Protection and the Environment
Behzad Kornejad, KTH
Dr. Andrzej Kochan, Warsaw University of Technology

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Thank you for your participation!