



CORCAP

Pilot actions implementation

PILOT ACTION (revised) final assessment
D.T2.1.6

Revised Version
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1. BACKGROUND

Introduction

Technical Work Package 2 includes multimodal freight transport pilot actions complementing OEM corridor development. To reach the goals, in the first step the methodology for the implementation of the pilot actions was agreed (D.T2.1.1).

Each partner shall carry out its pilot (as it is specified in the Application Form) and prepare its pilot reports. In all cases other partners are involved in the implementation, too (assessment, capitalisation etc).

Purpose of this document

In order to get a comprehensive picture of how the pilots are doing overall. The WP Leader, PP8 Freeport of Budapest prepares periodic, consolidated reports assessing the status of pilot activities based on the inception reports, mid-term reports and (revised) final reports provided by the project partners. The consolidated reports were shared among partners for peer review and discussed by the partners during the following partner meeting.

This document is the fifth (third based on the AF) element of this series, the revised final assessment (D.T2.1.6). This report aims to offer an evaluation framework supporting the learning and capitalisation process for each pilot action.

It consists of three parts:

- the progress of the partners since the pilots started;
- the status of stakeholder involvement;
- identification of expected results and transferability.

For each part, a summary table/figure has been prepared for a more illustrative presentation.

The document also summarises and highlights the changes that have taken place since the final assessment report.

Our goal is to present the changes that have taken place since the beginning of the implementation and to give the partners a more comprehensible picture of the extent to which they have succeeded in carrying out the tasks undertaken/planned by them so far.

This revised final report is created because all pilot activities have been completed (this has not yet happened at the time of the final assessment).

Which project partners' activity is assessed?

Each project partner who has a pilot is involved. The following table summarises the pilot actions and the responsible PPs.

Topic of the pilot action	Deliverable	Partner responsible
Smart traffic management system for the Budapest Freeport	D.T2.2.1-3	Freeport of Budapest Logistics, PP8, BSZL
Solutions for accessibility harmonisation of inland ports in the German-Czech section of the OEM corridor	D.T2.2.4-5	Saxon Inland Ports Upper Elbe, PP2, SBO
Analysis of goods flows and development of logistics concept for new intermodal services along the OEM corridor	D.T2.3.1-4	Rostock Port, PP3, Rostock Port
Logistics concept for an OEM freight liner train Rostock-Saxony/Czech Republic	D.T2.3.5-6	Saxon Inland Ports Upper Elbe, PP2, SBO
Low-cost improvements for rail freight transport along the OEM corridor and related railway networks	D.T2.3.7-10	Győr-Sopron-Ebenfurth Railway, PP9, GYSEV
Identification of attractive multimodal logistics locations and elaboration of profiles for development in the South Moravian Region and in the Bratislava Region	D.T2.4.1-5	KORDIS JMK, PP5, KORDIS
		Institute of Spatial Planning, PP6, IPP

2. STATUS REPORT ON THE IMPLEMENTATION OF THE PILOT ACTIONS

By monitoring the implementation of the pilots, our goal is to ensure that the partners involved deliver all the planned outputs, adhere to the timeframes accordingly, and manage all the risks during the implementation.

Through the reports prepared by each project partner with pilot action (inception, 1st intermediate report, 2nd intermediate report, [revised] final report), the WP2 lead partner is informed about what they are planning to implement and at what pace are they progressing. Based on these inputs, the overall progress for the pilots is presented in the next section.

It is important to emphasise that our evaluation and summary are to be understood from the beginning of the implementation of the pilots and do not only show the changed state since the previous report.

2.1 NEEDS AND CHALLENGES ADDRESSED BY THE PILOT ACTIONS

The following needs and challenges were identified by the pilot partners before or during the implementation of the pilot activities, which were divided into three groups.

Lack of solution or method deficiency that pilots want to answer:

- There is no access and traffic management system on the market that can handle a logistics center of similar size and functionality;
- Underdeveloped intermodal transport along the OEM corridor;
- Unmanageable volume of combined transport between the region of Ústecký kraj and the region of Northern Germany, such as the port of Rostock;
- Insufficient terminal capacities, low utilisation of intermodal equipment (e.g. trailer which can be loaded by cranes on rail wagons) within the transport industry;
- Need for a joint transport concept to increase rail freight traffic in the OEM corridor;
- The Saxon border region to the Czech Republic has an undersupply of offers for combined transport - the lack of parking spaces for containers and trucks;
- There are a number of specific needs of rail freight concerning certain infrastructure elements and parameters, but in many cases shares the same rail network with rail passenger transport;
- Need for improving the conditions for rail freight and including rail freight better in policy decisions, infrastructure planning and investments, operational planning as well as in regional and land-use planning;

- To investigate how the freight sector in the area of interest will develop and what impact this will have on the associated sectors, especially logistics;

Challenges related to the implementation of pilot actions:

- The end result should be on one hand a tailor-made solution (programmes and support schemes) for the digitalisation of inland ports and on the other hand a harmonised and standardised Intelligent Transport System;
- The maximum possible transport parameters for regularly occurring oversized and heavy goods transport need to be defined and pre-confirmed;
- Greater attention shall be paid to ensure that new roundabouts or similar potential barriers for oversized or heavy transports are passable and light signal systems and traffic signs protruding into the loading gauge of the transport can be swivelled or dismantled;
- Adequate alternative routes are to be indicated when planning construction sites on heavy-duty corridors;
- Designation of heavy goods corridors between the point of origin/destination and the nearest inland port or rail loading point in order to facilitate the integration of inland waterways and rail into these specific logistics chains;
- The level of digitalisation differs from one port to another;
- Locations and site digitalisation provided some challenges because Google maps could not be updated;
- To reach a critical mass of users by the smart application;

External factors:

- Disadvantageous political factors like low wages for truck drivers;
- The environmental footprint of trucks (which in South-East Europe are comparably old and consequently less environmentally friendly) are much more polluting than a rail-based transport chain;
- Ambitious targets for reduction of Greenhouse Gas (GHG) emissions in the context of European and national climate policies and the EU Commissions “New Green Deal”;
- Modal shift from road to rail is the most effective and fast way to reduce CO2 emissions from the transport sector;
- Rail freight, including its interfaces to other modes, is often neglected when it comes to investments in transport infrastructure and in regional and land-use planning;
- Rail freight usually has lower priority than passenger traffic, even in the field of capacity planning (timetable planning) and traffic management;
- COVID-19 and its consequences for the economy and freight transport;
- Due to COVID-19 restrictions, the implementation took more time and effort than expected;
- A new cycle for EU funding is beginning;

2.2 STATUS REPORT ON THE DEVELOPMENT OF OUTPUTS OF THE PILOT ACTIONS

Several studies, analyses and activities have been carried out by the partners since the start of the pilot implementation.

Studies, analyses:

- Technical design of the Automated access control and traffic management system;
- Detailed technical specification study for the intelligent access control and traffic management system plus user manual and screen recording video;
- Technical framework of the Internet portal (SDSS);
- Online portal accessible by means of internet browser (Microsoft Edge, Internet explorer, Chrome etc);
- GIS part of the Internet portal with geodata and statistical data;
- Accessibility indicators done for whole area (SW Slovakia and South Moravian Region);
- Attractive Multimodal Logistic Locations study;
- An online GIS web map service (WMA);
- Development of a general system approach for low-cost improvements for rail freight;
- Analysis of the state of railway freight transport in the Czech Republic;
- Survey aimed on long-distance freight road transport flows in the SMR;
- Description of the state and development of the regional freight transport and development in CENTROPE region;
- Accessibility evaluation according to different modes of transport until 2050 in CENTROPE region, with particular focus on intermodal hubs and logistics locations;
- Scenarios of development of freight transport in the territory of the SMR until 2050 and in the territory of SW Slovakia;
- Suitable locations for the development of intermodal hubs and logistics businesses in the South Moravian Region and in the territory of SW Slovakia;
- Application of system approach for low-cost improvements for rail freight transport along the OEM corridor and related railway networks;
- Best-practice guideline on low-cost improvements for rail freight in railway corridors;

Activities:

- Telephone conferences among the project partners and agreement on the progress and the methodology of each pilot project;
- Collection of data for the Free State of Saxony for the mapping;
- Desk research and evaluation of material from the relevant Rail Freight Corridors;
- Direct talks were held with various market players who are active in the OEM corridor;
- Working meetings with the stakeholders in-depth and online with the participation of e.g. Stena Line, VTG Rail Logistics and LINEAS Germany;
- Mapping of road freight transport study with the help of software tools;
- Collection of geographical and statistical data for the Spatial Decision Support System;

- Market analyses;
- Hierarchisation of proposed intermodal hubs in SW Slovakia;
- TEN-T demonstration train, demonstrating the benefits of smart timetabling and traffic management (technical demonstrator);

Investments:

- DOCK App mobile application;
- Installed devices (a kiosk, smart screens and licence plate recognition cameras);
- Maintenance and updates of the GIS software for the Spatial Decision Support System (SDSS);
- Internet portal with geodata and statistical data (GIS + statistical and other planning data).

To illustrate the results so far, in the followings we present highlights from the results delivered by the pilot actions.

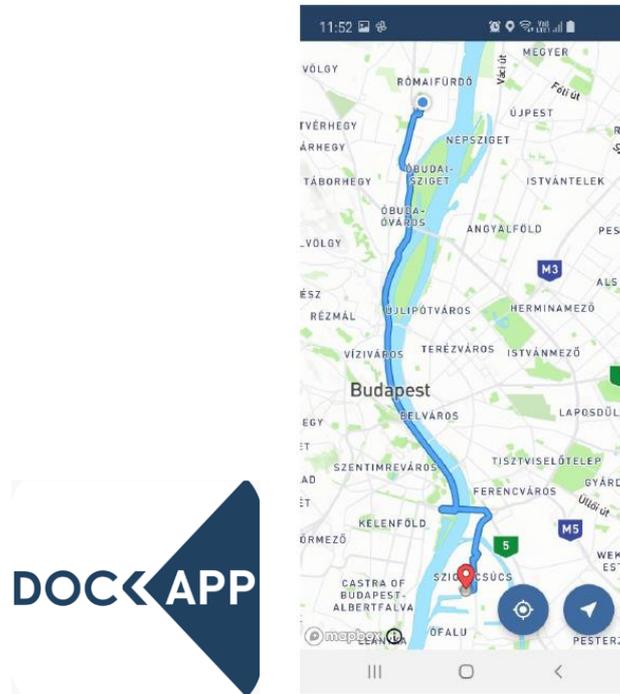


1. Figure Installed devices for the smart access and traffic management system

Source: FBL

The photos above were made by FBL in connection with the “Smart traffic management system for the Budapest Freeport” pilot action. The required and developed smart system is

based on automated license plate recognition and navigation application, supported by a kiosk and smart screens to manage the flow of road vehicles efficiently on site. It is for those who have not downloaded the App, and this method is also supported with an info point (kiosk).



2. Figure Planned route to a tenant of FBL on OpenStreetMap with the solution of Mapbox, using DOCK App

SOURCE: FBL

The pilot project triggered the digitalisation of locations, positions of buildings, gates, roads on-site of FBL. The navigation application (DOCK App) of the smart system was developed based on the solution of a 3rd party map provider (Mapbox). Their solution use opensource map data (OpenStreetMap) that was possible to edit and update with roads, building, gates, traffic rules. Also, the digitalised positions of the tenants were possible to add to this solution as a list/database. This way, anyone who needs direction towards a tenant of FBL, can plan its route ahead and will be directed to the address with the help of the mobile application.

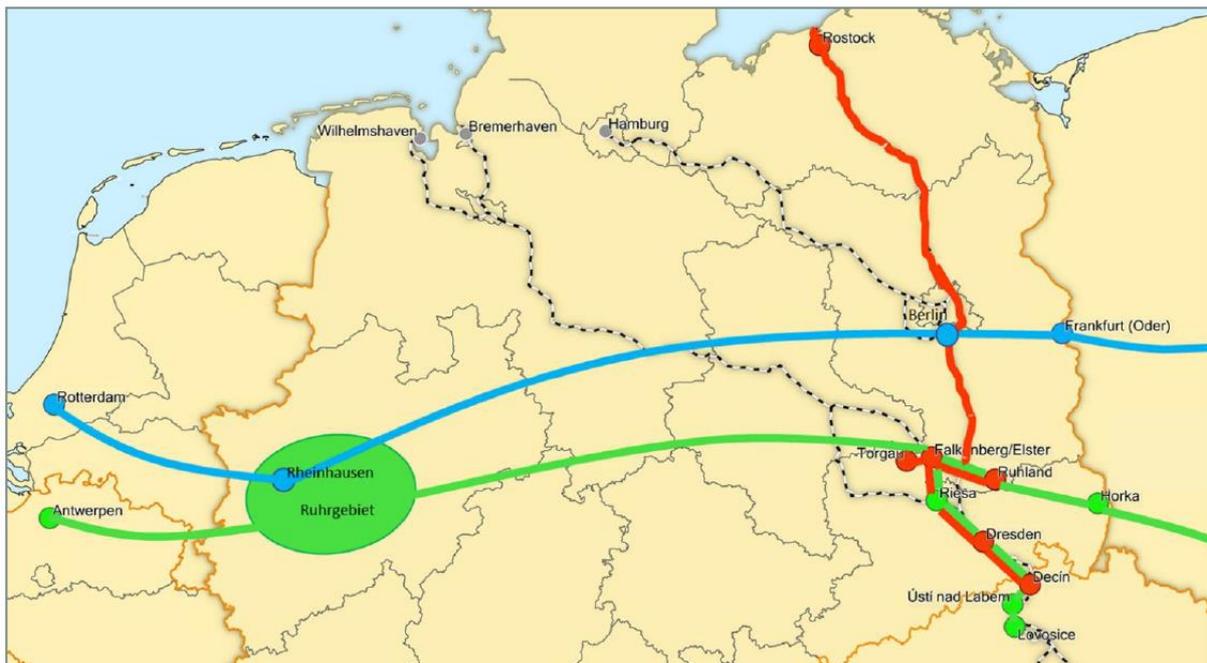
Regarding the pilot action of Saxon Inland Ports Upper Elbe, PP2, SBO (D.T2.3.5-6), a modular concept for the OEM corridor train is proposed as a result of the research carried out and the exchange of experience within the working group. This consists of the following modules:

- Expansion of existing offers;
- Block trains in corridor sections;
- Additional liner train.

In general, the existing offers should be supplemented. This applies in particular to the direct corridor train Vienna - Rostock - Scandinavia from Stena Line / RCA. Here it must be checked how many more stops are possible in the corridor in order to be able to maintain the total travel time.

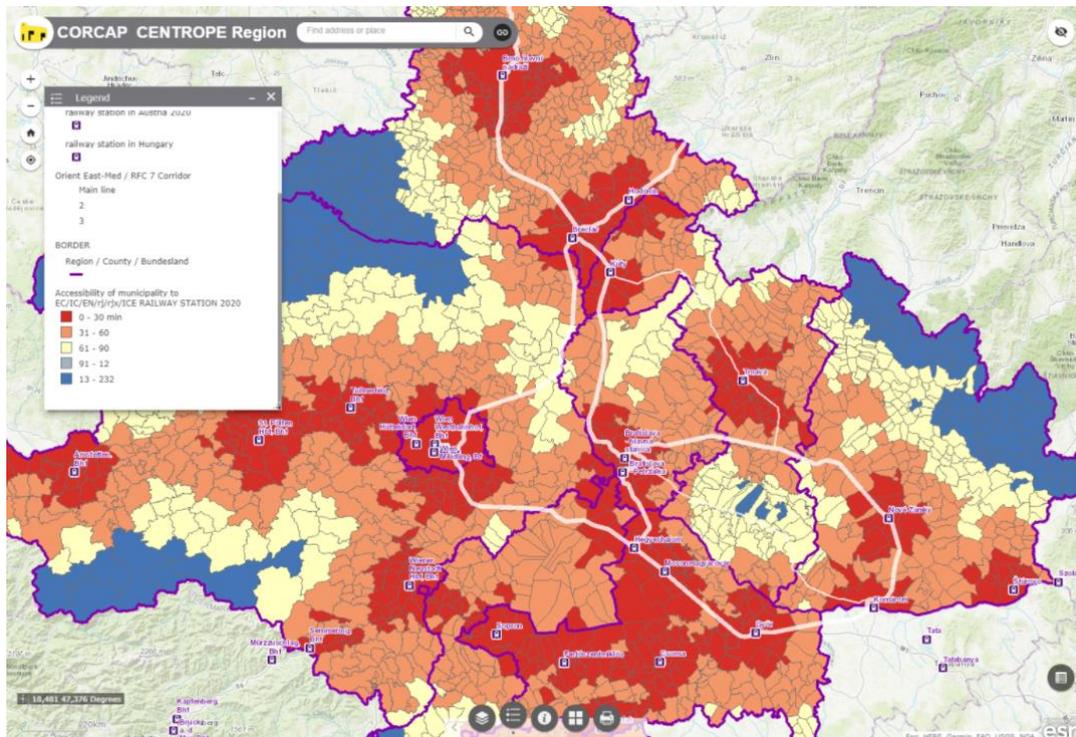
In the medium term, after further intensive market observation, customers are to be won in order to be able to implement a block train in the OEM corridor. Further train projects of the partners involved as well as the market study for corridor traffic to and from Hungary / Turkey can be used here (pilot T2.3.3).

The OEM corridor is crossed at several points by east-west connections that are important for rail freight traffic, and some are used by these traffic routes. It is thus possible to link the traffic offers. Consideration should be given to linking the transports to and from Poland via Horka with the OEM transports. The offers are to be developed, sold and implemented by the members of the LINEAS and RETRACK Germany GmbH working group. A regional focus is on train formation in the Falkenberg/Elster station, which is located in the immediate vicinity of the Dresden - Rostock railway line. The following figure shows these geographical dimensions of the link options described.



3. Figure Options for linking traffic services in north-south and east-west directions

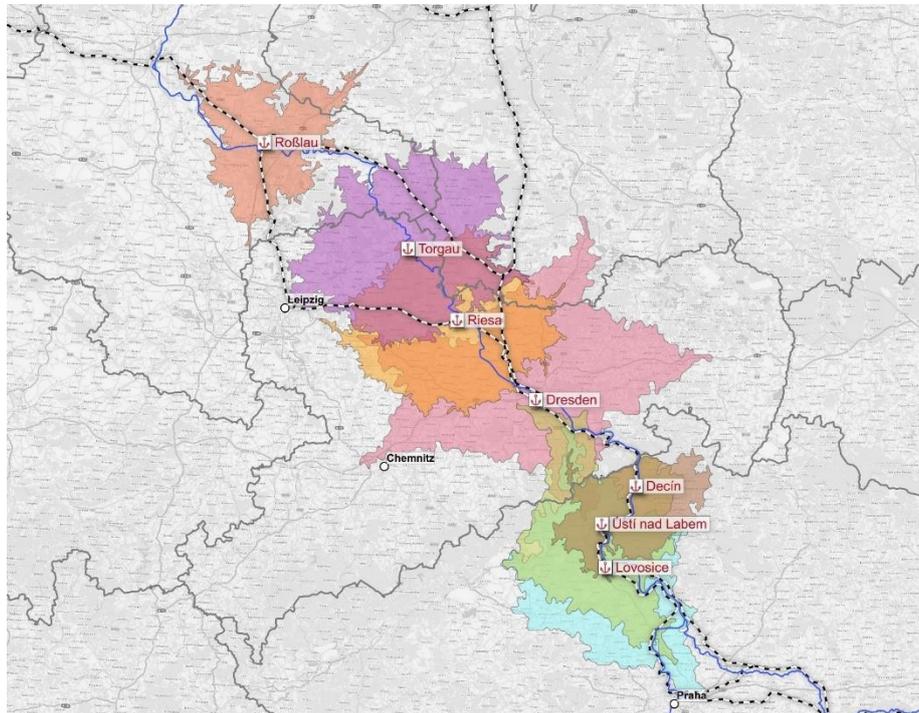
SOURCE: SBO



4. Figure Web map application

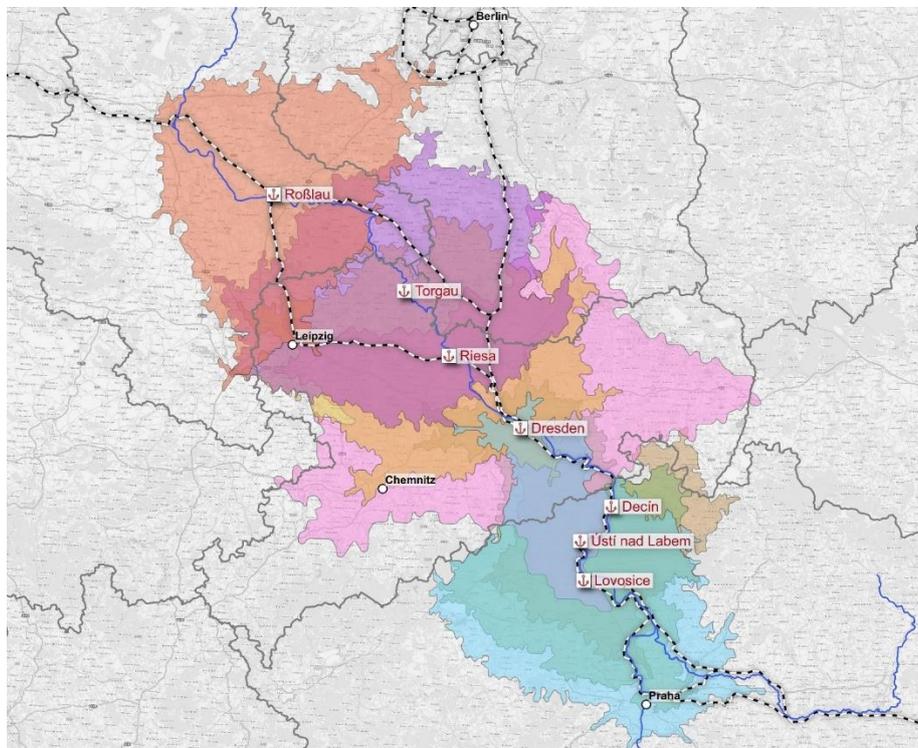
Source: IPP

The figure above was made by IPP in connection with the “Identification of attractive multimodal logistics locations and elaboration of profiles for development in the South Moravian Region and in the Bratislava Region” pilot action. The application layer consists of SDSS and GIS part. In both cases it is an online portal accessible by means of internet browser (Microsoft Edge, Internet explorer, Chrome etc). Access to the portal and to the online GIS web map service (WMA) is possible by entering the following link: <https://www.ipp-oz.sk/corcap>.



5. Figure Mapping of accessibility of Saxon and Czech ports by truck in 60 min

Source: SBO

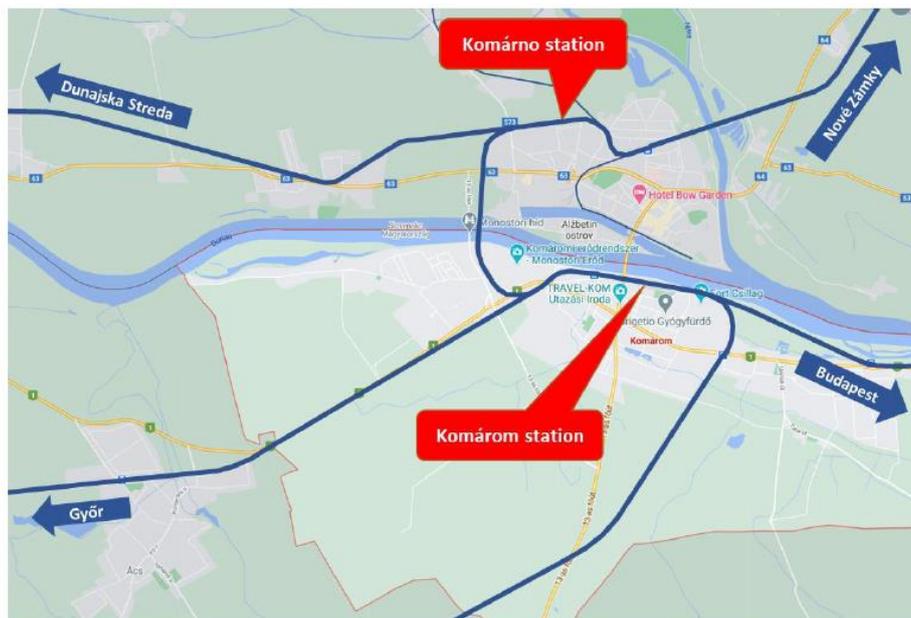


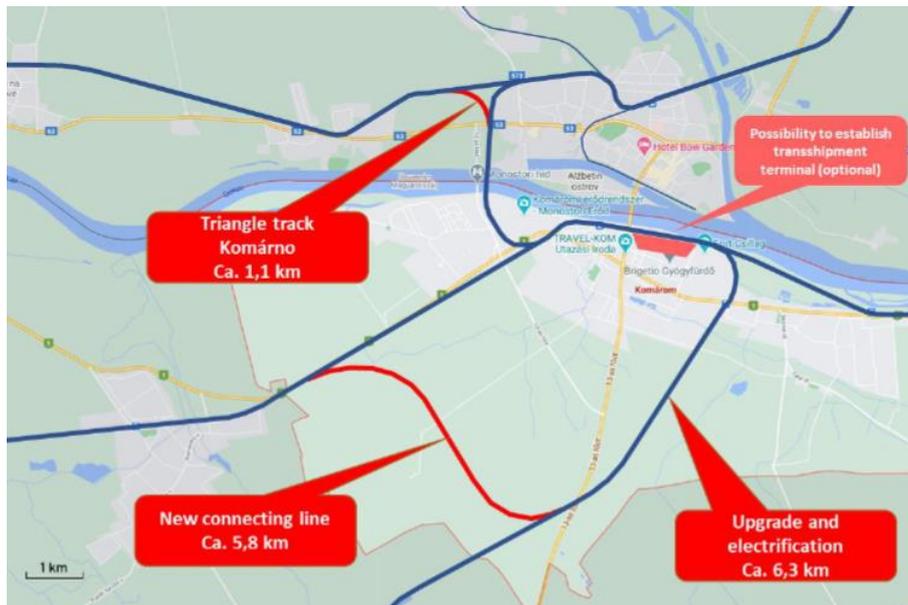
6. Figure Mapping of accessibility of Saxon and Czech ports by truck in 90 min

Source: SBO

The figures above were made by SBO in connection with the “Development of logistics concept for an OEM freight liner train Rostock-Saxony/Czech Republic” pilot action. The figures show the accessibility of Saxon and Czech ports by truck in 60 and 90 mins. The connection of the Free State of Saxony and the economy in the Saxon-Czech border region to the ports of import and export of goods is characterised by comparatively long transport routes. Therefore, different modes of transport with their specific performance should be used here more frequently, section by section.

By the pilot action of GYSEV, PP9 applies D.T2.3.7 (Development of system approach for low-cost improvements for rail freight transport along the OEM corridor and related railway networks) to the Brno-Budapest section of the OEM corridor and related railway networks, identifying possible low-cost improvements for bottlenecks. If suitable, synergies with large-scale investments will be indicated.





7. Figure Komárno Komárom Node

Source: GYSEV

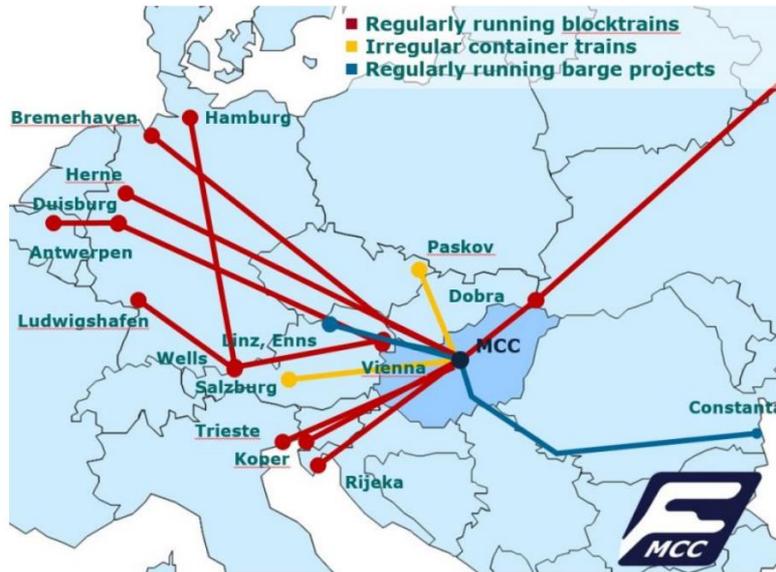
The figure shows one of the investment proposals they have identified, which could be implemented as follows:

- Triangle track could be built west of Komárno station over open field;
- Avoiding or reducing need for upgrading of Komárno station for longer trains;
- Length ca. 1,1 km.

Triangle track Komárno in combination with connecting line south of Komárom would avoid changes of travelling direction in all traffic relations.

At Komárom freight station capacity need would be reduced which will enable the possibility to establish intermodal transshipment terminal with full-trainlength tracks connected to main line in both ends.

A Transport analysis was carried out by Port of Rostock to examine the relevant statistics and literature for the affected area (from Rostock to Hungary/Romania/Turkey). It was followed by the Market analysis focussed on the train concept development. In order to get an even more accurate picture of the transport volumes and connections, a market analysis was also be carried out by involving a number of freight forwarder companies. The following figures were also made as part of this activity.



8. Figure MAHART Container Centre directional train connections

Source: https://www.containercenter.hu/en/rail_links/index.php



9. Figure Intermodal transport connections from Rostock

Source: Port of Rostock

2.3 METHODS APPLIED DURING THE IMPLEMENTATION OF THE PILOT ACTIONS

The partners plan to involve stakeholders in the implementation of the pilots in various ways.

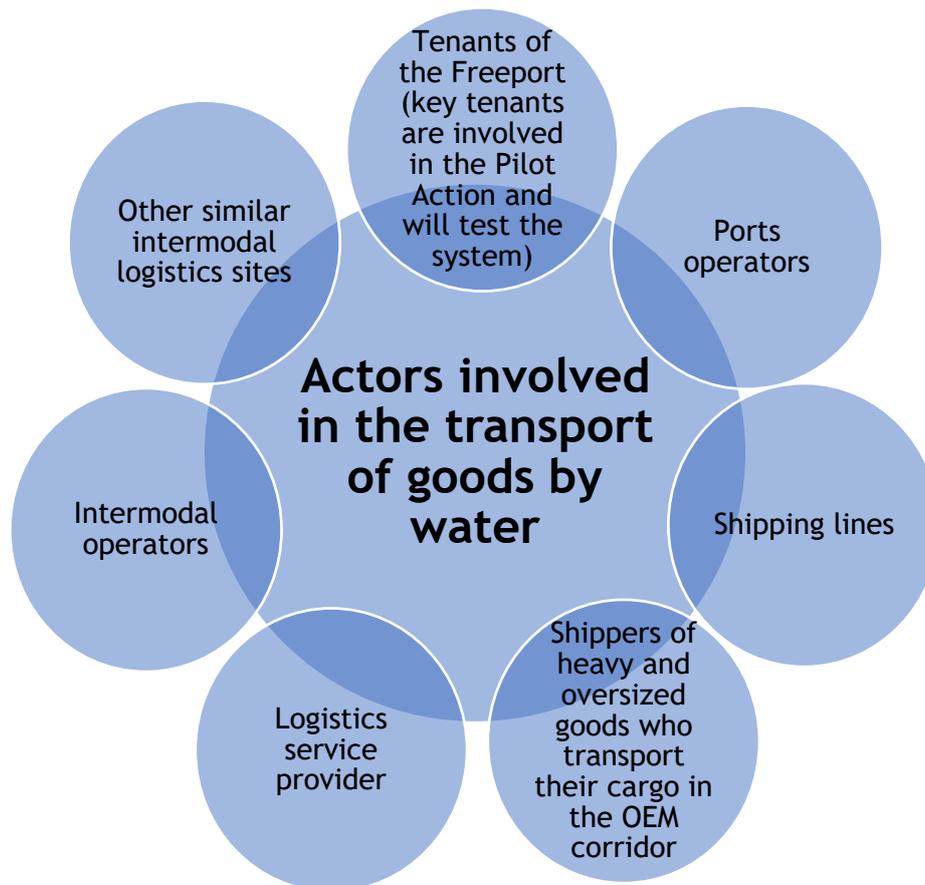
Of which the following have been used at least once since the start of implementation:

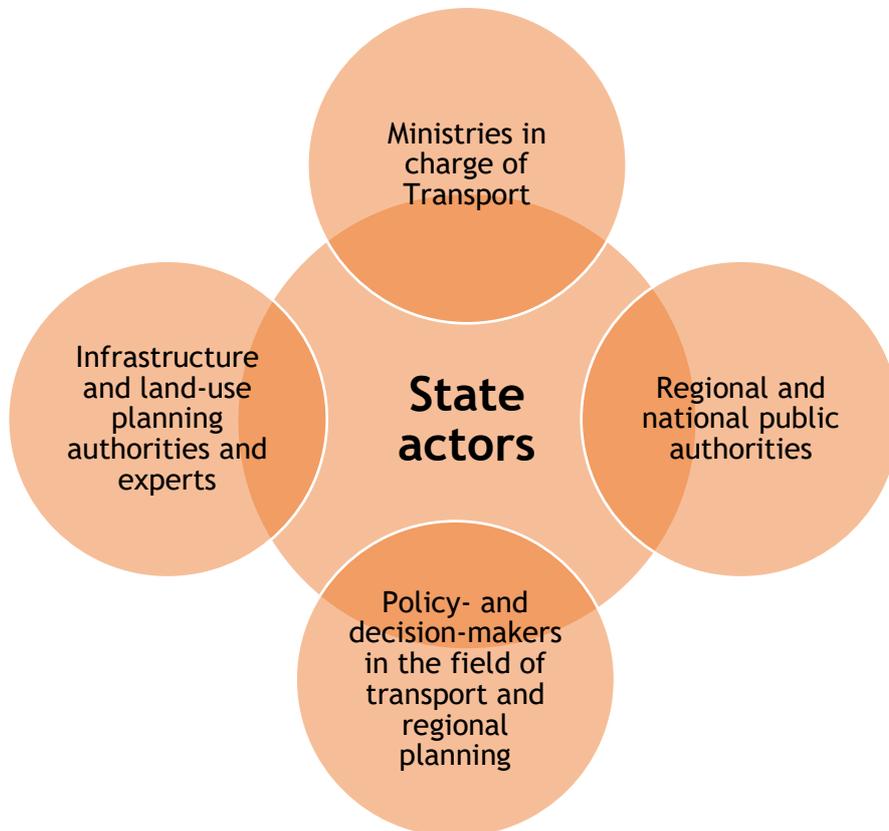
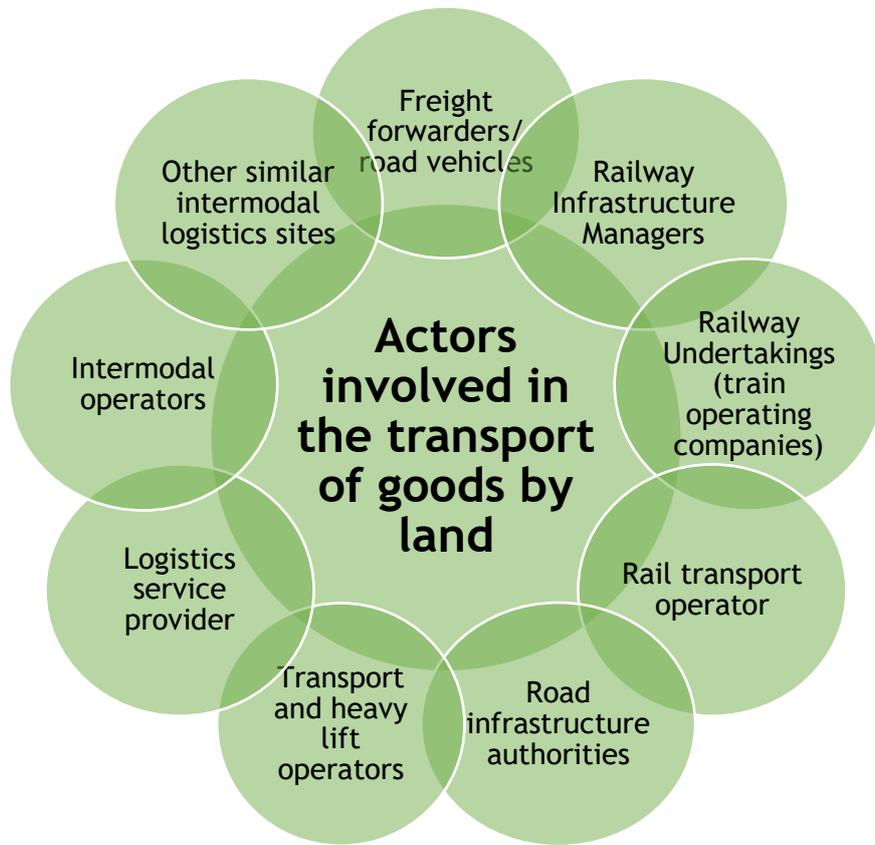
√	–Continuous discussions with stakeholders;
√	–On-site consultations;
√	–Field visits;
√	–Telephone conferences, video calls;
√	–Infrastructure surveys and interviews with tenants;
√	–Technical and geographical mapping;
√	–Interviews with market players/stakeholders and potential customers;
√	–Moderated (online) project meetings;
√	–Conduction of surveys on current logistics concepts;
√	–Literature research (scientific literature, policy documents and railway sector publications);
√	–Data search and extraction from internal databases (railway infrastructure parameters, railway station layouts, timetable data, transport statistics);
√	–Interviews with experts from internal units concerned (such as infrastructure unit, operations unit, traffic management unit);
√	–Data analysis with MS-Excel, including visualisation in diagrams;
√	–Elaboration of maps;
√	–Settlement quality index modelling;
√	–GIS analysis of transport accessibility;
√	–Direct contacts e.g. with Member of Rail Freight Corridor Railway Advisory Group (RAG);
√	–In-depth surveys of road freight transport;
√	–Software development in the field of SDSS, GIS applications and access control system.
√	–Production planning and operation execution of the Demonstration Train;
√	–Capacity application process;

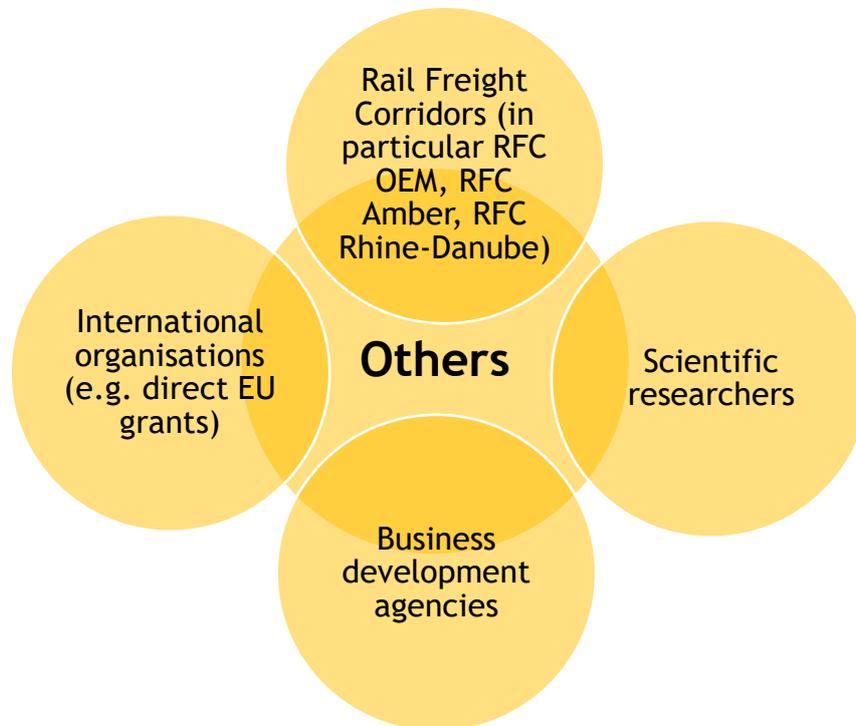
The results achieved during these activities can be found in the stakeholder involvement logbooks of the partners.

2.4 TARGET GROUPS/BENEFICIARIES OF THE PILOT ACTIONS

A number of target groups have been identified that can help the pilots to be implemented and utilise the achieved results in the future:







2.5 ANY DEVIATION IN TERMS OF THE CONTENT OR REALISATION OF THE PILOT ACTIONS (REASONS)

There was no deviation in the content or in the realisation of the pilot:

- D.T2.3.1-4 Rostock Port, PP3, Rostock Port;

There was a small change in the pilot's realisation:

- D.T2.2.1-3 Freeport of Budapest Logistics, PP8, FBL;
- D.T2.2.4-5 Saxon Inland Ports Upper Elbe, PP2, SBO;
- D.T2.3.5-6 Saxon Inland Ports Upper Elbe, PP2, SBO;
- D.T2.3.7-10 Győr-Sopron-Ebenfurth Railway, PP9, GYSEV;
- D.T2.4.1-5 KORDIS JMK, PP5, KORDIS; Institute of Spatial Planning, PP6, IPP.

D.T2.2.1-3 Freeport of Budapest Logistics, PP8, FBL

- The content and the focus of this pilot action did not change;
- The development and implementation of the automated access control and traffic management system for the site of FBL as well were delayed compared to what FBL planned earlier. However, the assessment phase started on time.
REASON: Finding the supplier for the required hardware and technology took more time than estimated. Discovering the environment and establishing the technical infrastructure of the site of FBL provided challenges.
IMPACT: It has no negative impact; the pilot action is still proceeding according to the time schedule of AF.

D.T2.2.4-5 Saxon Inland Ports Upper Elbe, PP2, SBO;

- There had been some delays.
REASON: The delays resulted from the low availability of potential customers and stakeholders, triggered by the COVID-19 pandemic.
IMPACT: The Lead Partner and Coordinator have been informed.

D.T2.3.5-6 Saxon Inland Ports Upper Elbe, PP2, SBO;

- The testing of the logistic concept (D.T2.3.6 Testing of logistics concept for the OEM freight liner train Rostock-Saxony/Czech Republic) is in delay compared to what SBO planned earlier but it will be completed in October 2021.
REASON: The low accessibility of potential customers and stakeholders, triggered by the COVID-19 pandemic and there are attempts to establish new offers in the OEM with the existing Vienna-Rostock train.
IMPACT: The Lead Partner and Coordinator have been informed.

D.T2.3.7-10 Győr-Sopron-Ebenfurth Railway, PP9, GYSEV

- The content and the focus of this pilot action did not change;
- Regarding the timeline, one of the Deliverables (D.T2.3.9, TEN-T Demonstration train), originally scheduled for September/October 2020, then postponed to May 2021, had to be postponed a second time due to COVID-19. As new date for the TEN-T Demonstration Train, together with a Workshop on International Rail Freight, 19/20 October 2021 has been agreed. Slight delays of some months are also envisaged for Deliverables D.T2.3.8 (Application of the system approach for small-scale improvements for freight on the Brno-Budapest section of the corridor) and D.T2.3.10 (Guideline for small-scale improvements). The plan is to finalise the D.T2.3.8 until July and to present D.T2.3.10 on the international workshop on 19 October 2021 in Sopron.
REASON: COVID-19. In all cases, the delays are related to the pandemic because of more time-consuming consultation with stakeholders.
IMPACT: The Lead Partner and Coordinator have been informed This new date has

been communicated to Partners and stakeholders by e-mail on 20 April 2021. The event has in the meantime also been notified and approved by the European Commission as an official Year-of-Rail-event.

The postponement will content-wise in none of the cases have any impact on the deliverables. Even with the postponements, they will still be implemented well ahead of the overall end of the CORCAP-project in March 2022.

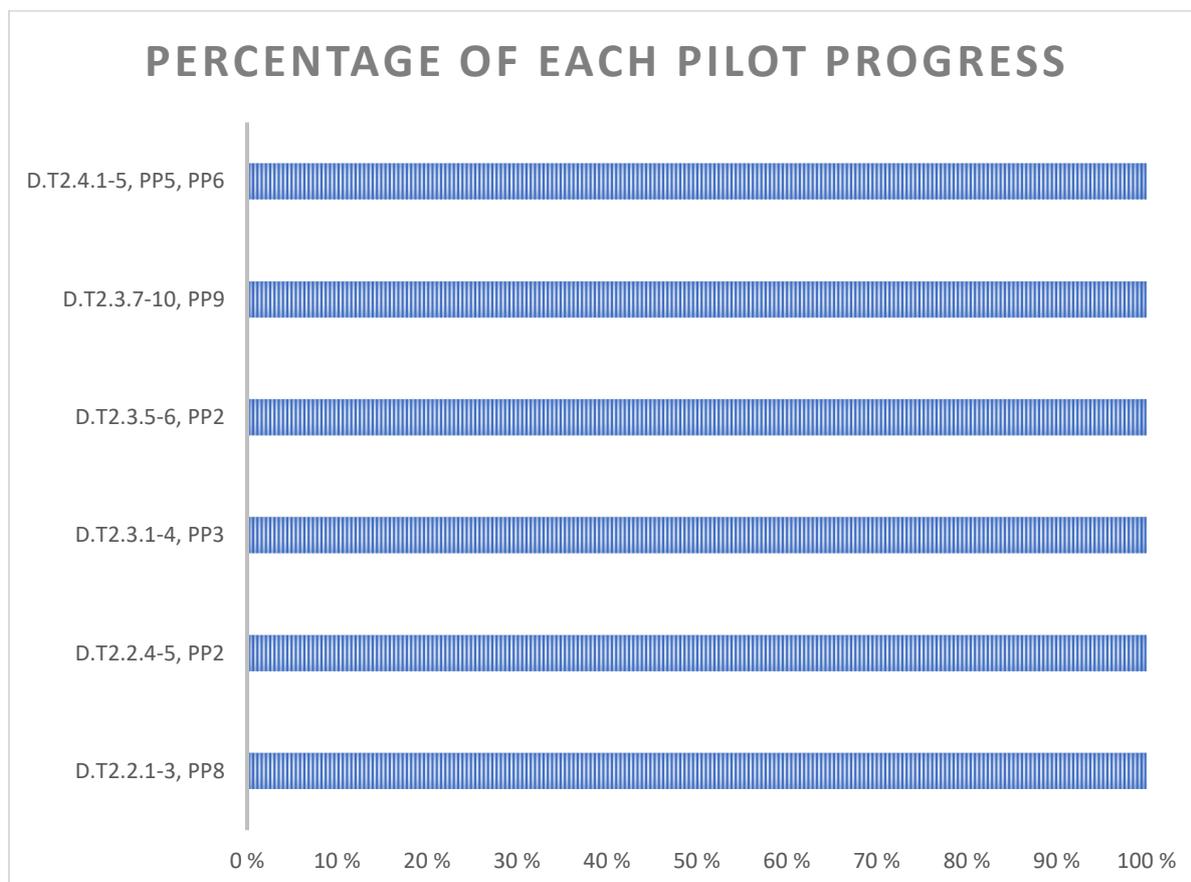
D.T2.4.1-5 KORDIS JMK, PP5, KORDIS; Institute of Spatial Planning, PP6, IPP

- There was a small change in the content of this pilot action
REASON: Deviation has been identified within planned purchase of equipment - Maintenance and updates of the GIS software for the Spatial Decision Support System (SDSS) Period 1: 2.970 EUR Period 3: 2.970 EUR Period 5: 2.970 EUR.
IMPACT: Based on the detailed set-up and planning of the pilot action, the online GIS solution should be implemented with the following elements:
 - o Purchase of software upgrade & maintenance for online GIS, estimated cost: max. 1.600 EUR/per year
 - o Purchase of hardware for GIS workstation, estimated cost: 1.800 EUR.

Taking into account the implementation period of the project, it is expected that the total cost will be approx. EUR 5,000 for the entire duration of the project.

To ensure proper performance, additional hardware was purchased to run the required software (ArcGIS Pro).

- Regarding the timeline, one of the Deliverables (D.T2.4.1, Mapping of road freight transport flows crossing the South Moravian Region - PP5), originally scheduled for September 2020, is postponed until 06/2021 and a little delay with the stakeholder meetings is expected.
REASON: COVID-19.
IMPACT: The Lead Partner and Coordinator have been informed.
- Regarding the timeline, deviation has been identified with the schedule of Internet portal development (GIS + statistical and other planning data), that was postponed to June 2021 (D.T2.4.2, Scenarios of development of freight transport crossing and targeting the South Moravian Region until 2050 -PP5), due to the COVID-19 crisis. Study development was postponed until 04/2021 (D.T2.4.4, Mapping of cross-border accessibility in the Centrope area until 2050 - PP6) and 06/2021 (D.T2.4.5, Identification of attractive multimodal logistics locations and elaboration of profiles for development in the South Moravian Region and in the Bratislava Region - PP5 and PP6) respectively.
REASON: COVID-19.
IMPACT: The Lead Partner and Coordinator have been informed.



Source: Own editing

FBL’s pilot action **D.T2.2.1-3** was progressing the quickest with its pilot implementation. However, this is not surprising, as it was already planned at the time of writing the AF that the FBL would be the first flagship to show the others the direction (FBL is also the work package leader). FBL is the only one to have already completed more than 80% of the tasks that arise during the implementation. However, it can now be said that all pilot activities have been completed.

Regarding the pilot action of SBO **D.T2.2.4-5**, the work on the pilot was started based on the preparation of the regional analyses for the regions of Saxony and Ústecký kraj. Initially, the focus was on mapping. The data for the Free State of Saxony and the Ústecký kraj were collected for the mapping of the transport connections of the Czech and Saxon ports to be created. The mapping was created, supplemented with a report and presented to the stakeholders and project partners. The mapping serves as supplementary material for the core Capitalisation Plan.

By the pilot action of Port of Rostock **D.T2.3.1-4**, they worked on three studies focussing on the development of new intermodal services along the OEM corridor. Both studies related to

the Hungarian, the Romanian market and the study looking on Turkish market are finished. The work during the implementation of the pilot action was mainly done by external qualified consultants from the respective regions or with a strong focus on those markets. The workload done consists of desk research, sub-analyses for cargo groups, potential customers, interviews with market players / stakeholders and design work for basic train concepts (own know-how of the engaged expert). The technical and economic feasibility is proven by cost-benefit analyses. Currently, they try to convince market players to put the theoretical concept into the market (market penetration).

In the case of pilot action **D.T2.3.5-6**, various market players who are active in the OEM corridor were addressed. The aim of this action is to achieve acceptance for the project and to generate further potential cargo for the corridor. The relevant industries and the corresponding high-volume industry locations have been identified. In a further step, the available cargo handling technologies were determined. In the meantime, contact has been established with all potential customers. They had the test runs of the new train connection between the ports of Dresden and Rostock. In addition, there are the attempts to establish new offers in the OEM with the existing Vienna-Rostock train.

A number of sub-tasks have already been completed for pilot **D.T2.3.7-10**. Necessary information for preparation of the study has been gathered, mostly through analysis of maps, material of the relevant Rail Freight Corridors, Network Statements of the railway Infrastructure Managers concerned. The results of the Regional Needs Analyses have been taken into account. Deliverable D.T2.3.9, (TEN-T Demonstration train) had to be postponed several times due to COVID-19. As new date for the TEN-T Demonstration Train, together with a Workshop on International Rail Freight, 19/20 October 2021 has been agreed. The event had also been notified in the meantime and approved by the European Commission as an official Year-of-Rail-event.

D.T2.4.1-5 pilot activity is different compared to the rest of the pilot activities. The content of the pilot activity is based on the results/outputs of the Regional Analysis (WPT1). As a result, the implementation could only start after the completion of WPT1. Overall delay in finalisation of the final output of the pilot activity was due to COVID-19 crisis and corresponding issues related with quarantine and absence of key expert and key representatives of the main stakeholders. The results will serve as background for regional Master Plan modifications for South Moravian and Bratislava Regions that can be used for other CE regions too.

All in all, the implementation level of the pilot actions was adequate, with only minor delays that were still manageable by the partners, and they were implemented well ahead of the overall end of the CORCAP-project (March 2022).

2.6 COMPLETED DELIVERABLES

Deliverable	Name of the activity	Completed by
D.T2.2.1	Technical design of the smart traffic management system for the Budapest Freeport	PP8
D.T2.2.2	Implementation of the smart traffic management system for the Budapest Freeport	PP8
D.T2.2.3	Assessment of the smart traffic management system for the Budapest Freeport	PP8
D.T2.2.4	Mapping of accessibility restrictions of inland ports in the German-Czech section of the OEM corridor	PP2
D.T2.2.5	Development and testing of solutions for accessibility harmonisation of inland ports in the German-Czech section of the OEM corridor	PP2
D.T2.3.1	Mapping of goods flows for different cargo commodities along the OEM corridor and related sections of crossing TEN-T corridors	PP3
D.T2.3.2	In-depth analyses for selected cargo commodities, destinations and intermodal hubs	PP3
D.T2.3.3	Development of logistics concept for new intermodal services along the OEM corridor	PP3
D.T2.3.4	Testing of logistics concept for new intermodal services along the OEM corridor	PP3
D.T2.3.5	Development of logistics concept for an OEM freight liner train Rostock-Saxony/Czech Republic	PP2
D.T2.3.6	Testing of logistics concept for the OEM freight liner train Rostock-Saxony/Czech Republic	PP2
D.T2.3.7	Development of system approach for low-cost improvements for rail freight transport along the OEM corridor and related railway networks	PP9
D.T2.3.8	Application of system approach for low-cost improvements for rail freight transport along the OEM corridor and related railway networks	PP9
D.T2.3.9	OEM demonstration train, demonstrating the benefits of smart timetabling and traffic management	PP9
D.T2.3.10	Best-practice guideline on low-cost improvements for rail freight transport in railway corridors	PP9
D.T2.4.1	Mapping of road freight transport flows crossing the South Moravian Region	PP5
D.T2.4.2	Scenarios of development of freight transport crossing and targeting the South Moravian Region until 2050	PP5
D.T2.4.3	Set-up of technical framework for cross-border accessibility analyses in the Centroepe area	PP6
D.T2.4.4	Mapping of cross-border accessibility in the Centroepe area until 2050	PP6
D.T2.4.5	Identification of attractive multimodal logistics locations and elaboration of profiles for development in the South Moravian Region and in the Bratislava Region	PP5 and PP6

3. STATUS REPORT ON THE INVOLVEMENT OF STAKEHOLDERS

In order to achieve a maximum level of capitalisation of the knowledge and experiences, pilot actions should be accompanied by a high level of stakeholder involvement, mobilising the relevant actors of the topic.

The methodology by the involvement of stakeholders looked as follows. PP8 provided a series of logbook templates, and instructions including:

- Stakeholder involvement logbook;
 - the aim of this document is to provide a methodological support of:
 - how to organize and document stakeholder involvement and
 - how to report it to the WP responsible partner (Freeport of Budapest - PP8).
 - the document contains a detailed list of the potential stakeholder institutions based on the type of the project partner, a list of obligatory and possible additional attachments that have to be sent to the WP responsible partner.
- Stakeholder involvement logbook_Agenda;
 - this is a template provided for the project partners to be filled out before the organisation of the meeting.
- Stakeholder involvement logbook_Attendance list;
 - this is a template provided for the project partners to be filled out on the venue.
- Stakeholder involvement logbook_Minutes of Meeting.
 - this is a template provided for the project partners to be filled out after the venue.

3.1 STAKEHOLDER INVOLVEMENT CARRIED OUT IN DESIGNING THE PILOT ACTIONS

Already until May 2021, a number of stakeholders were involved by the partners. These are as follows:

- During the business requirement specification and system development, FBL's key tenants of the site facilities were interviewed. Key tenants: Ekol Logistics, Láng Ltd., MASPED Logistics Ltd., Arcelor Mittal, MCC Ltd. Ghibli Ltd;
- During SW development, MASPED Logistics Ltd. was consulted for function solution development. (it was organised online via Zoom due to COVID-19 restrictions);
- The lowest transport authorities, who are necessary for applications and permits;
- Ministries, which can improve the corresponding legal regulations;

- Rail cargo operators with transshipment capacities and those operating in the OEM corridor;
- Regional authorities in Bratislava, Trnava and Nitra Self-governing Regions, South Moravia Region;
- National authorities - Ministry of Transport and Development of the Slovak Republic;
- Transport and logistics experts;
- Several stakeholders from the logistics and forwarding industry.

3.2 PLANNED STAKEHOLDER INVOLVEMENT DURING THE PILOT ACTIONS

STAKEHOLDER TYPE	STAKEHOLDER NAME/GROUP	RELEVANCE OF THE STAKEHOLDER TO THE PILOT ACTION	NAME OF PP WHO WILL INVOLVE THIS STAKEHOLDER	PLANNED WAYS AND METHODS OF INVOLVEMENT
Ministries	Saxon State Ministry for Economic Affairs, Labour and Transport	Supreme authority for transport	SBO	Multiplier on the Saxon planning associations
	Ministry of Transport and Development of the Slovak Republic	Ministry is responsible for transport concepts and spatial planning concept development at national level	KORDIS, IPP	Meetings and interviews
Regional and local authorities	Bratislava Self-governing Region	Stakeholder is responsible for Regional Master Plan development	KORDIS, IPP	Meetings and interviews
	Trnava Self-governing Region	Stakeholder is responsible for Regional Master Plan development	KORDIS, IPP	Meetings and interviews
	Nitra Self-governing Region	Stakeholder is responsible for Regional Master Plan development	KORDIS, IPP	Meetings and interviews
	South Moravia Region	Stakeholder is responsible for Regional Master Plan development	KORDIS, IPP	Meetings and interviews
	Federal Railway Authority	Approval authority	SBO	Application
	Regional authorities	Regional stakeholders	GYSEV	E-mail / videoconference
	Municipality of Bratislava	Municipality is responsible for transport concepts and spatial	KORDIS, IPP	Meetings and interviews

		planning concept development at local level		
Transnational and interregional cooperation	EGTC NRL Dresden-Prague	Middle	SBO	Information and coordination via Email, telephone conferences, video conferences
	RAG-TAG RFC OEM	Corridor users	GYSEV	Consultation/interview with Spokesperson and/or Members
	RAG-TAG RFC Amber	Corridor users	GYSEV	Consultation/interview with Spokesperson and/or Members
	Executive and Management Board RFC OEM	Corridor manager	GYSEV	Consultation/interview with Chairperson
	Executive and Management Board RFC Amber	Corridor manager	GYSEV	Consultation/interview with Chairperson
Private companies	MASPED Logistics Ltd.	Tenant of FBL	FBL	System integration; specification and development for the workflow and system MASPED uses for their logistics services. Evaluation of the access control management and communication of the systems.
	Arcelor Mittal	Tenant of FBL, significant traffic to their rental	FBL	Studying traffic and behaviour of drivers to Arcelor Mittal
	MCC Ltd.	Tenant of FBL, container traffic	FBL	Studying needs of container traffic
	Ekol Logistics	Tenant of FBL, warehousing and logistics	FBL	Understanding warehousing and logistics need
	Láng Ltd.	Tenant of FBL, warehousing and deliveries	FBL	Understanding warehousing delivery needs
	LISt GmbH	Representative of the Free State of Saxony for the VEMAGS and NOVALAST systems (permission for heavy and oversized road transport)	SBO	Adjustment of the data stock

	Transport operators	Serious impact, data provision	Rostock Port	Questionnaire surveys, interviews
	Logistic service providers	Serious impact, data provision	Rostock Port	Questionnaire surveys, interviews
	Cargo owner / industrial companies	Serious impact, data provision	Rostock Port	Questionnaire surveys, interviews
	STENA Line	Middle	SBO	Information and coordination via Email, telephone conferences, video conferences, excursions
	VTG Rail logistics	Middle	SBO	Information and coordination via Email, telephone conferences, video conferences, excursions
	LINEAS Germany	Middle	SBO	Information and coordination via Email, telephone conferences, video conferences, excursions
	Lkw Walter	Operator	SBO	Relocation potential for test operations
Others	Transport and logistics experts - AROS - Association of Railway Operators of Slovakia - ŽSR [Slovak national railway company] - Verejné prístavy [Public ports] - Masaryk University Brno	Experts with specific freight transport (different modes), logistics and spatial planning experiences	KORDIS, IPP	Meetings and interviews

List of all stakeholders involved in all the consultations - listed by PP and by type of institution- according to the classification of the logbooks:

NAME OF PP; DELIVERABLE	FBL D.T2.2.1-3	SBO D.T2.2.4-5	ROSTOCK PORT D.T2.3.1-4	SBO D.T2.3.5-6	GYSEV D.T3.7-10	KORDIS, IPP D.T2.4.1-5
Public body		Saxon State Ministry for Economic Affairs, Labour and Transport Federal Railway Authority.			RAG-TAG RFC Amber RAG-TAG RFC OEM	Bratislava Self-governing Region (BSK) Nitra Self-governing Region (NSK) Trnava Self-governing Region (TTSK) South Moravia Region Ministry of Transport and Development of the Slovak Republic Municipality of Bratislava
100% owned public company						MDaV SR
Private company	MASPED Logisztika Ltd. MAHART CONTAINER CENTER Ltd. Láng Kereskedelmi Ltd. Digital Eye Ltd. ITD Informatika Ltd.	LISt GmbH Lkw-Walter	Rail Cargo Group Logistic forwarders	STENA Line VTG Rail logistics LINEAS Germany EGTC NRL Dresden-Prague		AUREX s.r.o. Transport and logistics experts and organisations

Pilot actions performed in terms of stakeholder involvement very well in relation to their progress. The involvement of the requested stakeholders has been successful, the most stakeholders have already expressed their willingness to cooperate and cooperation with some partners has already begun. In some cases, their comments and recommendations are already incorporated to the actual studies.

4. EXPECTED RESULTS AND TRANSFERABILITY

4.1 DESCRIPTION OF THE TRANSFERABLE RESULTS

At the end of the pilot implementation, a number of results will be available for transfer to different target groups. These results were summarised in the table below.

By the D.T2.3.5-6 pilot action of Saxon Inland Ports Upper Elbe:

Due to the fact that a lot of experience and feedback is expected after the test runs of the new train connection between the ports of Dresden and Rostock (this is the main essence of the pilot action), so at the request of the partner, the final assessment report will be completed only after this deliverable is completed.

Instant solution possibilities:

- The know-how of port digitalisation for similar sites, especially location and site mapping;
- Automation of access control and SMART traffic management via navigation application and LED screens. Evaluated software and hardware solution to deliver for intermodal logistics centres;
- Best practices how to inform and navigate visitors of such sites;
- Solutions for the access of heavy and oversized goods transports to the inland ports in Saxony and Ústecký kraj;
- A model-based calculation concept to elaborate costs for a new transport concept is transferable to the general public;

Tools to facilitate planning:

- Recommendations for the improvement of the accessibility of other comparable loading points along the Orient-East-Med-corridor;
- An approach that demonstrates how a market player can identify and approach a potential user to convince them from using new developed transport offer;
- A logistics concept which will show ways to implement future freight train projects in the TEN-T corridors;
- A general system approach can be considered as generally applicable to railway corridors in Europe;
- Application of the system approach for low-cost improvements for rail freight transport in other parts of the Brno-Budapest corridor, as well as in other corridors;
- Urban Study will serve as background for regional Master Plan modifications for South Moravian and Bratislava Regions can be used for other CE regions too;
- By the on-line portal (SDSS + GIS), the developed software and the methodology used will also be public to other stakeholders (the software will be an open-source platform).

PILOT ACTIONS	EXPECTATION (BEFORE IMPLEMENTATION)	AT PRESENT (AFTER IMPLEMENTATION)
<i>D.T2.2.1-3 FBL</i>	Controlled automated access to the site of FBL based on license plate recognition at the gates. Based on the recognised license plate data, the developed navigation application and administration platform of the developed system should use the core system of FBL to enable tenants to manage traffic as required. The tenant should be able to call in or send the arriving vehicle to buffer. Navigation to tenants shall be easy. Clear statistics about the arriving vehicles and the traffic on-site of FBL.	<ul style="list-style-type: none"> • The DOCK mobile application is available on both Android and iOS platforms. It helps planning the route to tenants of FBL. • Upon arriving at the gates, the system can notify tenants about the arrival of a vehicle. • The tenants can call in or send the vehicles to buffer and call it in from there later. (currently, only one key tenant is assigned to test this function) • An administration platform helps in managing traffic, recording loading time to vehicles, keeping blacklist, managing accounts, providing statistics.

		<ul style="list-style-type: none"> • An info point (Kiosk) helps to find the way to required tenants. • Screens with license plate recognition cameras support navigation started at the Kiosk.
<i>D.T2.2.4-5 SBO</i>	<p>On one hand, the pilot should develop solutions for the access of heavy and oversized goods transports to the inland ports in Saxony and Ústecký kraj, on the other hand it should give further recommendations for the improvement of the accessibility of other comparable loading points along the Orient-East-Med- corridor. The focus is on regional planning to identify suitable routes and areas.</p> <p>The solutions and recommendations for action developed should have general validity for the entire corridor.</p>	<p>The pilot delivers solutions for improved access to loading points in the ports as well as to combined transport in the region of Saxony and Ústecký kraj. The mapping showed the weak points, especially for heavy goods vehicles. The results were presented to the regional planning authorities in a stakeholder meeting and included in the activities for the capitalisation plan.</p>
<i>D.T2.3.1-4 ROSTOCK PORT</i>	<p>The approach developed during the implementation of the action is generally transferable to the interested public. It shows and verify how to implement such actions successfully. It demonstrates how market player can identify and approach potential user to convince them from using new developed transport offer. It is to be seen as strategic guideline. Even a model-based calculation concept to elaborate costs for a new transport concept is transferable to the general public.</p>	<p>Results can be seen as transferable as intendent.</p>
<i>D.T2.3.5-6 SBO</i>	<p>The logistics concept is seen in terms of transferability to partners inside and outside the partnership. The structure and approach</p>	<p>-</p>

D.T3.7-10 GYSEV

D.T2.4.1-5 KORDIS, IPP

<p>will show ways to implement future freight train projects in the TEN-T corridors.</p>	
<p>The general system approach developed under the Pilot Action and described in the Guidelines (D.T2.3.10) can be considered as generally applicable to railway corridors in Europe.</p> <p>The specific potential projects identified through the application of the system approach to the Brno-Budapest section of the corridor (D.T2.3.9) are, naturally, specific to the locations concerned, but it is likely that similar solutions could be identified and implemented in other parts of the corridor as well as in other corridors.</p>	<p>The indications so far are that the expectations can be fully met.</p>
<p>1) Urban Study Based on a GIS-based assessment of regional accessibility according to different modes of transport and the analysis of scenarios of transport development until 2050 attractive multimodal logistics locations in the South Moravian Region and in the Bratislava Region with the aim to reserve the identified areas within spatial planning procedures will be identified, and profiles for the development of these locations will be elaborated. The results will serve as background for regional Master Plan modifications for South Moravian and Bratislava Regions that can be used for other CE regions too.</p> <p>2) On-line portal (SDSS + GIS)</p>	<p>1) Urban Study Based on a GIS-based assessment of regional accessibility according to different modes of transport and the analysis of scenarios of transport development until 2050 attractive multimodal logistics locations in the South Moravian Region and in the Bratislava Region with the aim to reserve the identified areas within spatial planning procedures were identified. The profiles for the development of these locations will be elaborated (in process). The results will serve as background for regional Master Plan modifications for South Moravian and Bratislava Regions that can be used for other CE regions too.</p> <p>2) On-line portal (SDSS + GIS) - geodatabase was prepared, and basic structure incl. technical framework was set.</p>

Developed software and used methodology will be at disposal to other stakeholders. Software will be an open-source platform.	Developed software and used methodology will be at disposal to other stakeholders.
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4.2 SUCCESS FACTORS OF SUCCESSFUL PILOT IMPLEMENTATION AND TRANSFERABILITY

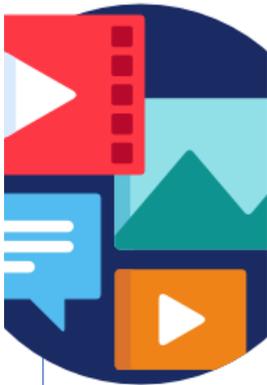
PILOT ACTIONS	EXPECTATION (BEFORE IMPLEMENTATION)	AT PRESENT (AFTER IMPLEMENTATION)
<i>D.T2.2.1-3 FBL</i>	<p>Easily manageable traffic to tenants. Clear statistics about traffic to FBL and to the tenants. Avoiding traffic jams at tenants, using the buffer zone. No lost vehicle due to Kiosk and Navigation application. Such system development may be successful when it will be independent of any platform and can be implemented to any electronic management system a site may use. This secures the transferability of the system as well. Digitalized port location information, working navigation application solutions are an indicator of successful development during the pilot. Well-informed visitors and application users can be measured along with the info point usage feedbacks based on statistics. (The experience how long it takes to minimize or even eliminate the usage/importance of it in</p>	<p>Both the hardware and developed software, plus the mobile application is an indicator of the successful fulfilment of the transferable system. There is already interest from different sources to implement /apply the results of this pilot action. The developed system is a simplified version of the specification that was made based on the requirements at the beginning of the project. However, it is developed according to the demand and easily developable to further needs and opportunities. The core function of license plate recognition and notice is well transferable to any site that would need automated or already has an access control system. The navigation application can be a must to any site. Especially when site and position digitalisation is more advanced at the required site. Info point and screens are to back up the navigation application. The kiosk can support the operation well. Screens with cameras need to be considered before making a decision, as a lower quality camera system can have many limitations. The added value of the currently selected models is still being tested.</p>

	<p>the system. Reaching the critical mass of app usage, etc...)</p> <p>Experiences with the usage of the LED screens, working access control solution, more productive site, less junction or lost visitors, no traffic jams at the gates and tenants during peaks can be assessed. The efficiency of the system can be compared to the previous period when human labour was involved to control access to the site of FBL.</p> <p>Depending on how much traffic/ junction is being reduced, how many man-hours are freed up by the automatisisation.</p>	<p>Success can be recorded when:</p> <ul style="list-style-type: none"> • tenants are noticed about the arrival of the vehicle by the system, and they can manage traffic according to the needs. • FBL can see clear statistics about the traffic according to the needs. • Vehicles are not lost, and information is there for the drivers when they request, and on the desired platform. <p>This version of the developed system is readily transferable after requirement specification and site infrastructure study.</p> <p>Further developable after thorough technical specifications.</p> <p>Statistics of the system and feedbacks of the tenants and users are being collected as indicators for the assessment.</p>
<p><i>D.T2.2.4-5 SBO</i></p>	<p>The success of the pilot depends essentially on the cooperation of the stakeholders. This is why the greatest possible acceptance should be reached. The transferability of the pilot's results can and must be achieved through the stakeholders.</p>	<p>The pilot activities were very well supported by the stakeholders. the speed of the planning and approval of the trailer port in the port of Dresden is particularly noteworthy. All stakeholders attached great importance to a maximum of willingness to cooperate. The operator involved will also help to promote the pilot as an example of cross-border solution finding for capacity bottlenecks on the OEM corridor.</p>
<p><i>D.T2.3.1-4 ROSTOCK PORT</i></p>	<p>There is one important success factor: the commitment of market players to participate in the project from drafting to testing.</p>	<p>Due to the corona pandemic, a real commitment of market players to use intermodal transport development tasks has not been achieved, but we expect it sometimes later when the pandemic is over and the business back as normal.</p>
<p><i>D.T2.3.5-6 SBO</i></p>	<p>Elaboration of a technically and economically viable concept to be implemented by one or more operators. Success can be measured</p>	<p>-</p>

	<p>and documented by the interest from stakeholders (i.e. freight forwarders, shippers, intermodal operators) to participate in the concept. Furthermore, the additional rail freight volumes to be forecasted for the implementation of the concept are also measurable.</p>	
<i>D.T3.7-10 GYSEV</i>	<p>The following factors can be considered as relevant to measure the success of the Pilot Action:</p> <ul style="list-style-type: none"> • Media coverage of the TEN-T Demonstration Train Event • Inclusion of elements of the Pilot Action Guidelines into the work of the Rail Freight Corridors concerned • Inclusion of potential projects (infrastructure measures) identified in the Pilot into national infrastructure planning and the Work Plans of the Core Network Corridor (CNC OEM) 	<p>The achievement of the expectations regarding the media coverage can be finally assessed first after the event in October 2021. However, inclusion of the event by the European Commission as an official Year-of-Rail-event gives visibility of the event beyond the expectations already now.</p> <p>Inclusion of elements in the work of the RFCs (even beyond RFC OEM) is to some extent already reflected in the planning of activities/projects by the RFCs.</p> <p>Inclusion of infrastructure measures into national and European infrastructure planning can be assessed first after the Action.</p>
<i>D.T2.4.1-5 KORDIS, IPP</i>	<p>Success factors are:</p> <ul style="list-style-type: none"> • accessibility of relevant statistical data • involvement of experts from different fields (transport, logistics, spatial planning) <p>communication with key stakeholders</p>	<p>Relevant (geo)statistical data were gathered and utilized.</p> <p>Experts from different fields (transport, logistics, spatial planning) were involved,</p> <p>Communication with key stakeholders was realized by means of local meetings as well as individual consultations.</p>

4.3 ACTIONS PLANNED FOR DISSEMINATION AND KNOWLEDGE TRANSFER

In order to achieve the widest possible range of stakeholders, various methods were used by the partners while implementing the pilots:



Digital marketing:

- An evaluation report will be part of the dissemination tool by the end of the Pilot Action;
- Technical article in the (trade) press;
- Publication of project deliverables on the project websites;
- A news release in the e-Newsletter and on the website of RFC Amber and RFC OEM;



Direct marketing:

- There are direct discussions planned to share the experience gained with interested logistics sites. Field visits, on-site demonstrations are available at FBL. For example, for Saxon Inland Ports Upper Elbe and Ústecký kraj;
- The Hungarian Federation of Danube Ports (HFIP) will be involved in the marketing and demonstration of such solution for its members;
- Also, the European Federation of Inland Ports (EFIP) can be involved to promote the system for its member ports;
- Presentations at the planned stakeholder and expert meetings within the project;
- Presentations about the results on conferences;
- Presentations about the Pilot Action on Railway and Terminal Advisory Group-meetings of the Rail Freight Corridor(s)
- A presentation about the Pilot Action in the SERAC Rail Freight Corridor Working Group organized by the European Commission (DG MOVE) after operation of the TEN-T Demonstration Train.

The table below shows how the partners' dissemination activities were developing compared to what was planned.

PILOT ACTIONS	EXPECTATION (BEFORE IMPLEMENTATION)	AT PRESENT (AFTER IMPLEMENTATION)
<i>D.T2.2.1-3 FBL</i>	<p>The assessment report is part of the dissemination tool by the end of the Pilot Action.</p> <p>There were direct discussions planned to share the experiences with interested logistics sites. Field visits, on-site demonstrations are available at FBL. For example, for Saxon Inland Ports Upper Elbe and Ústecký kraj.</p> <p>The Hungarian Federation of Danube Ports will be involved in the marketing and demonstration of such a solution for its members.</p> <p>Also, the European Federation of Inland Ports can be involved to promote the system for its member ports.</p>	<p>Due to COVID restrictions, field visits are not recommended. However, communication and marketing activities are already in progress. There were workshops and leaflets, brochures are produced and will be handed out on events both in English and Hungarian language, in parallel with which online marketing activities take place.</p> <p>There are in-depth discussions online as well.</p>
<i>D.T2.2.4-5 SBO</i>	<p>The results will be presented at the planned stakeholder and expert meetings within the project. In addition, PP2 will publish a technical article in the press.</p>	<p>The results have been presented at the planned stakeholder meeting in October 2020 and in two expert meetings within WP T3 of the project. In addition, PP2 published an article in the press and the stakeholder SMWA published a video.</p>
<i>D.T2.3.1-4 ROSTOCK PORT</i>	<p>Publication of the final report and press release about the - hopefully realized - test run.</p>	<p>Final report submitted, one is remaining and currently under development. Test run not realized due to the Corona pandemic and resulting circumstances.</p>
<i>D.T2.3.5-6 SBO</i>	<p>The logistics concept will be presented and explained to the stakeholder workshops as part of the project. In addition, an article for the trade press will be prepared and published.</p>	<p>-</p>

<p><i>D. T3.7-10 GYSEV</i></p>	<p>The first activity was a presentation of the concept objectives at the International Transport Logistics Conference of MLSZKSZ in Herceghalom (HU) on 31st January 2020.</p> <p>For the dissemination and knowledge transfer the following activities are planned:</p> <ul style="list-style-type: none"> • The workshop/seminar in connection with the TEN-T Demonstration Train • Publication of project deliverables on the project website • Presentations about the Pilot Action on Railway and Terminal Advisory Group-meetings of the Rail Freight Corridor(s) • A news release in the e-Newsletter and on the website of RFC Amber (committed) and RFC OEM (requested) and on the website of GYSEV Zrt (committed) 	<p>The indications so far are that the expectations can be fully met.</p>
<p><i>D. T2.4.1-5 KORDIS, IPP</i></p>	<p>Stakeholder meetings Promotion at Web pages (project and PP5 and PP6) Press release</p>	<p>Dissemination was done by means of stakeholder meetings. Promotion was done at project web pages, social networks - Facebook, and websites of partners (PP5 and PP6).</p>

4.4 TRANSFERABILITY TARGET GROUPS AMONG PPS AND OTHER STAKEHOLDERS IN THE CE REGION

The target groups to which the results can be transferred after implementation have also been identified:

- The developed automated access control and traffic management system is targeted to Czech -Saxon intermodal sites of the consortium, but also to any intermodal logistics site that is in need of a similar solution or identifying similar challenges as FBL;
- The owner of a Hungarian, newly developed site and also the port of Baja along the Danube are discussing the possibilities of implementation /transferability;
- All river ports in the CE region that are connected to road transportation may be interested to learn about the outcome and product that the Pilot Action will deliver;
- Project partners in the project;
- Relevant target groups in the field of transport and planning along the OEM corridor;
- Rail freight companies, terminal operators as well as inland and seaports in Central Europe;
- Any other entities involved in planning and managing of rail-freight related infrastructure along the OEM corridor, including planning authorities and entities in charge of policy decisions, such as Ministries;
- Stakeholders beyond RFC OEM corridor;
- NUTS 3 regions in the CE region.

4.5 RISKS AND LIMITATIONS OF IMPLEMENTATION

The current situation caused by the COVID-19 virus were affecting many parts of the pilots. For example, some delays in implementations that occurred in later phase were due to limited opportunities, such as:

- On-site installation and testing were only possible in compliance with regulations;
- A drastic reduction in the number of personal meetings and the importance of switching to online discussions;
- Employee travel restrictions or travel ban;
- Limited IT infrastructure for employees for transition;
- Rethinking of the events' organisation, possibility to switch to online video conferencing
- Cyber risks e.g. applications for remote access;
- Reaction to common events (e.g. breakdowns).

Addressing these factors will be crucial for all pilots to succeed in the future. Therefore, the following should be taken into account to manage project risk effectively (also after the project lifetime):

1. Identification of the risks;
2. Communication about risks;
3. Considering the opportunities as well as threats when assessing risks;
4. Prioritising of the risks;
5. Fully understand the reason and impact of the risks;
6. Development of the responses and preventative measure tasks to the risks;
7. Tracking the risks and their associated tasks.

The benefit of risk management in projects is huge because the outcome of a project failure has an impact on the future. Risk assessments allow you to complete a project on time, on budget and with quality results.

4.6 RISKS AND LIMITATIONS OF TRANSFERABILITY

Risks that could threaten the transferability of pilot projects have also been collected before the implementation period by partners:

- The access control system can be used only by “closed” logistics centres that are not situated on public roads and access to the site has to be controlled;
- The system can be implemented as a boxed solution only for those sites that have no current system in place, especially any automated process for the management of the flow of traffic. An existing system may limit its effectiveness;
- The logistics sites, which would like to implement this system, have to meet a certain complexity in order to take full advantage of the system deployment;
- According to the current corona crises, a commitment of market players is a huge risk of being able to test the theoretical drafted train concept;
- Confidentiality agreements with potential customers and operators can also cause some problems;
- Certain elements of the Guidelines may be specific to certain conditions (such as a single track or double track), but none of these conditions are unique to the OEM-corridor;
- Transferability to certain elements of the Guidelines to cases outside Europe could be somewhat limited since operational conditions on some railway networks may fundamentally be different from those in Europe (e.g. mainly or even only freight traffic, diverting traffic patterns and operational methods);
- Employee turnover in the regions;
- Unexpected important (transport, business) investments in the region;
- Outputs are too specific for spatial planning needs in the conditions of Slovakia and the Czech Republic;
- Outputs are too oriented to Bratislava and South Moravian Regions environment.

The table below shows the risks that partners see after implementation of their pilot projects.

PILOT ACTIONS	AT PRESENT (AFTER IMPLEMENTATION)
<i>D.T2.2.1-3 FBL</i>	<ul style="list-style-type: none"> • The soul of the system is the license plate recognition at the access gates. If this is not yet available on the new location or its operation is very different from that used by the developed system, it may be more difficult/time consuming to adapt the new system to the existing one. • The complexity of the site may require a different approach than the navigation application used by the pilot project to digitize the position of the map / data. • If cameras and screens need to support orientation on-site, the transport, procurement and installation of these can be very expensive. • If very complex statistics are required, further improvements are needed. • If all tenants should test, implement and use the new system before launching it, a longer trial period and UAT (user acceptance test) may be required for general acceptance.
<i>D.T2.2.4-5 SBO</i>	There are no risks in the transferability of the results.
<i>D.T2.3.1-4 ROSTOCK PORT</i>	The risk still applies: According to the current corona crises, a commitment of market players is a huge risk of being able to test the theoretical drafted train concept.
<i>D.T2.3.5-6 SBO</i>	-
<i>D.T3.7-10 GYSEV</i>	<p>The indications so far are that risks, and limitations are in line with the expectations: We do not see any risks or limitations of transferability within Europe. Certain elements of the Guidelines may be specific to certain conditions (such as single track or double track), but none of these conditions are unique to the OEM-corridor. Transferability to certain elements of the Guidelines to cases outside Europe could be somewhat limited since operational conditions on some railway networks may fundamentally differ from those in Europe (e.g. mainly or even only freight traffic, diverging traffic patterns and operational methods).</p>
<i>D.T2.4.1-5 KORDIS, IPP</i>	<p>For each organisation, a representative person was appointed. Regular communication with these persons was established. The most significant investments in CE CENTROPE region, both actual and proposed, were taken into account. Proposals and visions of nearby Austrian and Hungarian regions (that are part of CE CENTROPE region) were involved (analysis of the state and proposal of freight structure, and accessibility analysis). Bratislava Region was enlarged, now covering the area of Bratislava, Trnava and Nitra Regions.</p>