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Rail4Regions

D.3.4.2
ACTION PLAN

Žilina region, Slovakia

Final version

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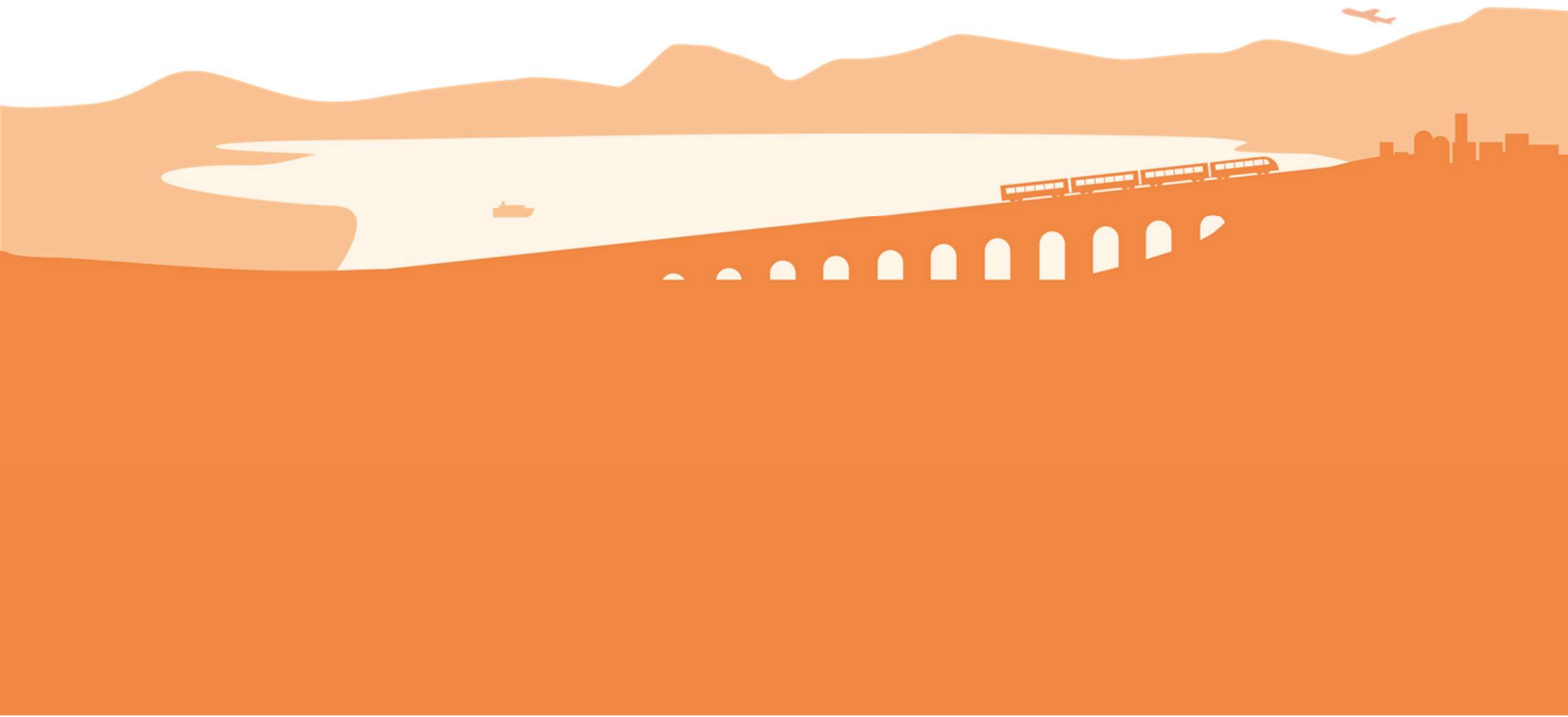

A. General information

Partner Organization

- **Name of Partner Organization:** Žilinská univerzita v Žiline (PP3)
- Region **Covered:** Slovakia (Žilina region)

B. Regional context

Policy Application Processes

- Please describe how transport and spatial planning policies are currently applied in your region.

Spatial planning is a set of activities that determine and regulate the spatial arrangement of the territory, the functional use of the territory and ensure sustainable territorial development. It is regulated by Act No. 200/2022 Coll. and Decree No. 392/2023 Coll., which determine details on the content and method of processing of spatial planning documentation, spatial planning documents, general requirements for the spatial layout of the territory and the functional use of the territory.

The aim of spatial planning is to systematically and continuously create conditions for sustainable spatial development so that the territory is used efficiently, safely, economically, aesthetically, ethically and democratically, taking into account the natural, historical and cultural heritage, the protection and quality of the environment and the quality of life of the inhabitants.

Rail freight transport is part of highest level of spatial planning covered by central authority for spatial planning the Ministry of transport. Some activities are made by Železnice Slovenskej republiky as infrastructure manager and Transport authority as the state administrative body with nationwide operation in the area of railways.

Transport and spatial planning actors

- Please Identify the main actors involved in transport and spatial planning in your region (e.g., public authorities, private companies, regional development agencies).

The spatial planning authorities are municipalities, self-governing regions and regional authorities. The central authority for spatial planning is the Ministry. These authorities are responsible for the procurement, negotiation, use, maintenance and guidance of spatial planning documentation.

Municipalities and self-governing regions:

These self-governing units are responsible for spatial development in their territories and procure spatial planning documentation for their needs.

Regional planning authorities:

These authorities are the government bodies that deal with spatial planning at the county level and are responsible for issuing spatial planning decisions.

The Central Planning Authority (Ministry):

The Ministry provides methodological guidance to the planning authorities, supervises compliance with the spatial planning principles and draws up methodological guidelines.

Other authorities:

Other concerned state and local authorities also enter into the spatial planning process.

The spatial planning authorities are obliged to procure spatial planning documentation in accordance with the needs of spatial development and care for the environment.

- Describe how these actors interact and their roles in shaping and implementing policies

In order to achieve sustainable spatial development, the spatial planning authority shall coordinate state, regional, municipal and local interests by spatial arrangement and functional use of neighbouring territories and lower-level territorial units with the superior territorial unit. Through spatial planning, the spatial planning authority:

- establishes the conditions for an efficient and sustainable settlement structure, taking into account local conditions, the nature of the natural and settlement structure and the availability of public transport infrastructure and technical infrastructure,
- creates conditions for the efficient and sustainable use of natural resources in the territory, taking into account the protection and sustainable use of agricultural land and the protection of forest land from other uses.
- takes care to create quality non-discriminatory conditions for the life of the population so as to avoid the creation of spatially segregated or segregated localities with a concentration of generationally reproduced poverty, including conditions for their elimination,
- takes care to preserve and develop the historical and cultural heritage, as well as the preservation and improvement of the environment, the preservation of biodiversity, a balanced environmental approach to the spatial layout of the territory and the functional use of the territory,
- ensures ecological stability and ecological connectivity, including in relation to climate change adaptation, nature conservation and landscape protection and creation. The principles of spatial planning also include improving or preserving the appearance of place and landscape.

- Highlight the **mechanisms driving collaboration** among public and private actors (e.g., governance models, steering committees).

The spatial planning documents are spatial-technical documents and spatial studies. They have a text graphic form. In graphical form, i.e. maps and models, these documents are kept in binding geodetic reference systems.

The spatial-technical documents describe the actual state of the territory, contain data on the current state of its use, on its urban values, on the state and values of the landscape, its components, on any restrictions on use and on the intentions to make changes to the territory.

The spatial-technical documents are, for example:

- spatial and other data from the information system of geodesy, cartography and cadastre
- data on the socio-economic structure in the territory,
- data on the environment,
- data on existing transport infrastructure and technical infrastructure systems,
- other data and results of surveys or researches related to the territory.

Spatial studies shall assess the possibilities for sustainable spatial development and verify the conditions for changes in the territory. They also propose possible solutions to selected problems and phenomena

which may affect or condition the spatial layout and functional use of the built-up or unbuilt-up area of a municipality or municipal region.

According to § 4 of Decree No. 392/2023 Coll. territorial studies is a study:

- spatial planning,
- landscape planning,
- urban planning,
- sectoral,
- transport infrastructure development,
- technical infrastructure development.

Other spatial planning documents that are obligatory to use, if they have been prepared, are the nature and landscape protection documentation, flood hazard map, land improvement project and the principles of conservation of the conservation area, if it is a conservation area. The spatial planning documents which are compulsorily used, if they have been elaborated, are also sectoral concepts and other relevant documents, if their binding nature results from special regulations.

The stages of spatial planning documentation are:

- concept of Spatial Development of Slovakia,
- concept of Spatial Development of the Region,
- micro-region spatial plan,
- municipality spatial plan,
- zone spatial plan.

- Mention key challenges

Key issues in the transport sector

Key issues in the transport sector have been identified through extensive analytical work.

The analytical part focused both on the individual transport modes, divided into road, rail, public passenger, water transport and civil aviation, and on the problems cutting across transport modes, limiting the functioning of multimodality in both passenger and freight transport.

In a global perspective, it is necessary to mention one of the basic problems of the transport sector in Slovakia, which is the long-term unfavourable development of the division of transport work in favour of road, especially individual (non-public) transport. At this point it should be noted that a similar problem is also faced by neighbouring European countries with similar economic development.

A non-negligible negative effect on roads loaded above the permissible limit is also the time loss resulting from congestion, which has an indirect impact on the economic activity of the population.

According to Strategic Transport Development Plan of the Slovak Republic to 2030 - Phase II are the key problem in rail transport:

- Planning issues:
  - Insufficient link between transport data collection and evaluation, unavailability of the data base describing transport flows in rail freight transport,
  - Insufficient justification for the selection of the limit potential of lines for even more efficient rationalisation

- Infrastructure issues:
  - Insufficient functionality of the Bratislava railway junction
  - Unquantified internal debt in infrastructure maintenance
  - Lack of interconnection between the parameters of the operational concept, infrastructure and rolling stock
- Rail freight transport problems:
  - Capacity issues and interoperability constraints on RFC lines
  - Lack of strategy for further development of intermodal transport and the single carload segment
- Other problems:
  - Lack of centralisation of traffic management
  - Practical problems on the issue of sharing depots, sidings and other maintenance and service facilities

C. Adopted solutions

- Briefly summarize the solutions identified during the assessment of potential modal shift in your regions

As the most interesting, developed solutions with bigger potential impact to change model split in Slovakia were identified these solutions:

1. Involving the stakeholders such as policymakers, infrastructure managers, railway undertakings, and customers to promote and support Single Wagon Load (SWL). This solution includes particular solutions focused on
   - Technical solution e.g. Digital Automatic Coupling (DAC)
   - Policy and Regulatory Support
   - Financial issues, subsidies
2. Free-access online portal that visualize existing loading points and Display existing rail networks, business locations, and industrial areas including siding analysed and scaled according to specific decision-making tools for existing industrial sidings and areas without them
3. Concept for the periodic re-evaluation of regional railway lines as base fot for revitalizing branch and feeder lines in rural areas is structured into a three-phase approach:

- Describe how these solutions coordinate with broader development and investment programs

According to analyses of spatial planning documents are these solutions in line of development programs.

Main analysed documents:

Strategic Transport Development Plan of the Slovak Republic to 2030 - Phase II

National Investment Plan of the Slovak Republic for 2018 - 2030

The Concept of Spatial Development of Slovakia (KURS) and its updates

Proposal the Vision and Strategy for the Development of Slovakia until 2030 - a long-term strategy for sustainable development

Strategy for Sustainable Development of Transport and Mobility of the Žilina Self-Governing Region

Action plans for the development of the least developed districts

Strategy for Adaptation of the Slovak Republic to the Adverse Impacts of Climate Change

National policy for the introduction of infrastructure for alternative fuels in the conditions of the Slovak Republic

Action Plan for the Environment and Public Health of the Slovak Republic IV.

Energy Policy of the Slovak Republic

National policy framework for the development of the alternative fuels market

- Explain how these solutions address the region's specific transport challenges, such as environmental sustainability, socio-economic development, or improved safety, etc.

Based on description of key problem of rail transport according to Strategic Transport Development Plan of the Slovak Republic to 2030 - Phase II in previous part of this action plan and previous part of the project are these solutions in close cooperation with planned development and investments programs.

Horizontal specific objectives

No.2: IMPROVE THE SAFETY, EFFICIENCY AND SUSTAINABILITY OF TRANSPORT OPERATIONS BY ENHANCING

NEW TECHNOLOGIES

An important aspect of meeting this objective must also be coherence in the deployment of new technologies across transport modes. This will also indirectly promote the competitiveness of transport modes and create the potential for a change in the distribution of transport work

No.3: SYSTEMATICALLY REDUCE NEGATIVE SOCIOECONOMIC AND ENVIRONMENTAL IMPACTS OF TRANSPORT

Modal specific objectives

RT1. STRENGTHEN THE ROLE OF RAIL AS A CARRIER MODE IN THE PUBLIC TRANSPORT SYSTEM WHERE JUSTIFIED

The share of rail freight transport in the total transport performance is very low. Rail has the potential to increase this share and thus contribute in particular to reducing the burden on the environment and to improving operational safety.

The potential for development lies in particular in combined transport and in long-distance, integrated freight trains.

The instruments for this objective are achieving interoperability on TEN-T lines, ensuring sufficient capacity for the development of rail freight transport, setting a sustainable road charging strategy, improving the conditions for combined transport, promoting the development of freight wagons and streamlining freight transport operations.

D. Stakeholder Engagement

- Please detail **how** stakeholders were consulted during the development of the Action Plan

For more than 70 years UNIZA has been a key partner in the field of research, science and education in rail transport. It has decades of cooperation with all kinds of stakeholders in Slovakia and abroad. UNIZA has built a network of partners from practice and academic sphere whose knowledge, experience and

cooperation is used in many scientific and research projects. The same procedure of cooperation was also applied in this project and preparation of the action plan.

Consultations with stakeholders took place on several levels: on the one hand, at official events organised by UNIZA, stakeholders or third parties such as international scientific conferences, expert conferences, workshops, presentations, etc. On the other hand, and very importantly, through mutual consultations and close and long-term cooperation of individual researchers and stakeholder representatives.

- Please list **key stakeholders** consulted (e.g., regional development agencies, transport operators, private companies).

Primary consulted stakeholders – railway market actors:

Association of Railways Operators of Slovakia – cover more than 90% of railway market actors,

Železnice Slovenskej republiky – railway infrastructure manager,

Železničná spoločnosť Cargo Slovakia, a.s. – national cargo carrier,

LTE Slovakia s.r.o.,

Railtrans International a.s.,

TIP Žilina, s.r.o. – intermodal terminal operator,

Železničná spoločnosť Slovensko, a. s. – national passenger carrier

Secondary consulted stakeholders – public body in railway sector:

Transport authority - a state administrative body with nationwide operation in the area of railways and other guided transport, civil aviation and inland waterway transport.

Ministry of Transport,

Žilina self-governing region,

Integrated Transport of Žilina and Trenčín Region s.r.o.

Transport Research Institute, a.s.

- Highlight their input and how it influenced the proposed solutions and actions

During the project and during all phases of the preparation of the action plan, frequent and intensive cooperation with stakeholders in field of:

- consultations on the state of the transport sector
- analyses in the field of railway transport
- analyses of risks and bottlenecks
- preparation of the concept of solutions
- cooperation in the evaluation of the proposed solutions of the project
- consultation of the strategy of the action plan
- preparation of the concept of the action plan
- evaluation of the feasibility of the action plan
- comments and changes in the action plan
- cooperation in the planning of the risks and risks elimination of the action plan

E. Proposed actions

Action #1: Support SWL

- Objective: What does this action aim to achieve?

Objective of action 1 is preparing and implementing system for support SWL in Slovakia

- Description: Please explain the action, including its alignment with identified solutions and its relevance to regional challenges

Action consists of finishing and implementing state support to SWL services. System was prepared with project partners and include analysis and solutions from project implementation. Action is explained in particular activities.

Action is in line with horizontal specific objectives and modal specific objectives for rail transport described in previous part of this plan.

- The multi-level public planning framework relevant to this action, covering:
  - European Level: EU policies and directives (e.g., Green Deal, TEN-T regulation) relevant to the region.
  - National Level: National strategies and laws affecting transport and spatial planning.
  - Regional Level: Regional policies, plans, and programs that guide transport and spatial development.

Action is in line with goals specified in document of national and regional level described is previous part C, which are in line with European level public planning framework.

- The private planning framework relevant to this action, covering:
  - Identify private sector strategies or standards that influence regional transport or spatial planning (e.g., logistics companies, freight operators), relevant to the identified solutions.
  - Explain how private frameworks could be adopted or aligned with public strategies to support the Action Plan.

This action is oriented on cargo operators which offer SWL services. In Slovakia is this service offer mainly by ZS Cargo, national cargo carrier.

- Activities:
  - List the main tasks required for implementation, including milestones

1.Systematic analysis the system of SWL in Slovakia a Central Europe and economics calculation of SWL system prepared by UNIZA, Association of Railways Operators of Slovakia and Ministry of Transport

2.Anylising the possibility of implementing from point of railway infrastructure manager by ŽSR

3.Consluting and adopting experiences, solutions and knowledge gathering from project R4R - consultations with stakeholders

4.Consolidations all materials and preparation the system of support SWL – Ministry of Transport

5.Implementation – Ministry of Transport with ŽSR

- Responsible Actors: List stakeholders responsible for implementing the action (e.g., local authorities, private companies, public transport operators).

Stakeholders joined to this action: UNIZA, Association of Railways Operators of Slovakia, Železnice Slovenskej republiky (ŽSR), Železničná spoločnosť Cargo Slovakia, a.s., Ministry of Transport, and others stakeholders as consultants

- Challenges and Requirements
  - Political: Strategies for securing stakeholder support and addressing planning delays.

Action can be implemented only on Ministry level of planning and development rail transport.

  - Environmental: Measures to comply with EU environmental guidelines and mitigate impacts (e.g., noise reduction, buffer zones).

Action brings positives for stabilisation modal spilt in freight, which reduce environmental impact of road transport.

  - Financial: Approaches to cost estimation and securing funding (public, private, or mixed).

Action brings more finance for covering SWL service, which help to cover the cost of this service and help stabilisation modal spilt in freight. Action will be cover by public funding.

  - Regulatory: Compliance with safety regulations, environmental permits, and operational standards

Action will be cover by public funding so is necessary to prepare clear, transparent and non-discrimination system which will be approved by the European Commission.

- Financing Resources:
  - Please indicate funding sources, considering various forms of investment models (e.g., public funding, private investment, PPPs, EU programs).
  - Indicate potential funding sources at national, regional, and local levels.

Action can be financed only by national or European funding.

- Timeframe:

  Please provide a realistic timeline for implementation, including key milestones.
  - Start Date: [5/2024]
  - End Date: [10/2025]
- Risks and Mitigation: List potential risks and how you plan to address them

Main risks in implementation of the action are political and financial.

Action #2: Digitalization of siding and loading points services

- Objective: What does this action aim to achieve?

Objective of action 2 is to preparing conditions for free open database of loading points and siding.

- Description: Please explain the action, including its alignment with identified solutions and its relevance to regional challenges

Publication information about siding can be part of infrastructure manager network statement or online database of Transport authority, which is responsible for agenda of siding permissions. Public free open database of loading points and siding an help to customer to find challenges for their transport solutions and help to find investors and customers for development of siding.

Action is in line with horizontal specific objectives and modal specific objectives for rail transport described in previous part of this plan.

- The multi-level public planning framework relevant to this action, covering:
  - European Level: EU policies and directives (e.g., Green Deal, TEN-T regulation) relevant to the region.
  - National Level: National strategies and laws affecting transport and spatial planning.
  - Regional Level: Regional policies, plans, and programs that guide transport and spatial development.

Action is in line with goals specified in document of national and regional level described is previous part C, which are in line with European level public planning framework.

- The private planning framework relevant to this action, covering:
  - Identify private sector strategies or standards that influence regional transport or spatial planning (e.g., logistics companies, freight operators), relevant to the identified solutions.
  - Explain how private frameworks could be adopted or aligned with public strategies to support the Action Plan.

Action can help to find investors if the loading points or sidings should be implemented like necessary for new business and transport solutions.

- Activities:
  - List the main tasks required for implementation, including milestones

1.Analysis of current state of information about loading points and sidings

2.Preparing system of publishing the technical information about loading points and sidings

3.Prepraing legislative framework

4.Implementing of free open database of loading points and siding

- Responsible Actors: List stakeholders responsible for implementing the action (e.g., local authorities, private companies, public transport operators).

Stakeholders joined to this action: Transport authority, Železnice Slovenskej republiky (ŽSR), Ministry of Transport and other stakeholders as consultants

- Challenges and Requirements
  - Political: Strategies for securing stakeholder support and addressing planning delays.

Technical information about loading points, which are part of rail infrastructure are in competence of ŽSR. ŽSR provide online interactive map with whole technical info about all parts of the rail infrastructure. There is only necessary to add the information about sidings to the network statement or online database of Transport authority. This information is owned by siding owners and operators, but Transport authority and ŽSR too.

  - Environmental: Measures to comply with EU environmental guidelines and mitigate impacts (e.g., noise reduction, buffer zones).

Action doesn't have any negative effect to environmental issues.

- Financial: Approaches to cost estimation and securing funding (public, private, or mixed).

Action need only low public fundings.

- Regulatory: Compliance with safety regulations, environmental permits, and operational standards

Information about siding is private, there is necessary to prepare legislative framework for their publishing.

- Financing Resources:
  - Please indicate funding sources, considering various forms of investment models (e.g., public funding, private investment, PPPs, EU programs).
  - Indicate potential funding sources at national, regional, and local levels.

Action can be secure by public fundings, but there is possibility to get private fundings to investments to loading points or siding when be implemented like necessary for new business and transport solutions.

- Timeframe:

  Please provide a realistic timeline for implementation, including key milestones.
  - Start Date: [9/2025]
  - End Date: [12/2026]
- Risks and Mitigation: List potential risks and how you plan to address them

The main risk is using private information for public. There is necessary to analyse and update legal frameworks for publishing information about siding which are owned by private sector. Some sidings are part of critical infrastructure so info about these will be secret.

Action #3: Concept for the periodic re-evaluation of regional railway lines

- Objective: What does this action aim to achieve?

Preparing the concept of the periodic re-evaluation of regional railway lines

- Description: Please explain the action, including its alignment with identified solutions and its relevance to regional challenges

Decision about closing regional railways in last 30 years was made without any concept and schedule. It was made by analysis of ŽSR but always depended on actual political willingness and request.

Regions are dynamic and still changing, to is necessary to periodically re-evaluate the potential and actual state of regional lines. Period for re-evaluation will be 10 years, or in specific reason based on request of regional or national authorities. Concept will include national requests and plans for transport development but will include regional planning oriented on rail transport in freight and passenger transport too. There is necessary cooperation between local, regional and national transport planning authorities and focus on both rail transport users – freight and passenger.

Action is in line with horizontal specific objectives and modal specific objectives for rail transport described in previous part of this plan.

- The multi-level public planning framework relevant to this action, covering:
  - European Level: EU policies and directives (e.g., Green Deal, TEN-T regulation) relevant to the region.
  - National Level: National strategies and laws affecting transport and spatial planning.
  - Regional Level: Regional policies, plans, and programs that guide transport and spatial development

Action is in line with goals specified in document of national and regional level described is previous part C, which are in line with European level public planning framework.

- The private planning framework relevant to this action, covering:
  - Identify private sector strategies or standards that influence regional transport or spatial planning (e.g., logistics companies, freight operators), relevant to the identified solutions.
  - Explain how private frameworks could be adopted or aligned with public strategies to support the Action Plan.

Action can be affected by private planning framework in case of incoming new investment to the region or changing of industry which need medium or high-capacity transport services.

- Activities:
  - List the main tasks required for implementation, including milestones

1.Preparing platform for periodically re-evaluation regional railway lines – ŽSR

2.Preparing methodology for evaluation regional railway lines – ŽSR, national and regional special planning authorities

3.Implementation re-evaluation process as open platform for public and private consultation - ŽSR, national and regional special planning authorities, all other stakeholders

- Responsible Actors: List stakeholders responsible for implementing the action (e.g., local authorities, private companies, public transport operators).

Stakeholders joined to this action: Železnice Slovenskej republiky (ŽSR), Transport authority, Ministry of Transport, self-governing regions, cities, investors, integrated transport originators, freight and passenger railway operators, and other stakeholders.

- Challenges and Requirements
  - Political: Strategies for securing stakeholder support and addressing planning delays.

Spatial planning focused on railways and rail transport is in competence of national level institutions.

  - Environmental: Measures to comply with EU environmental guidelines and mitigate impacts (e.g., noise reduction, buffer zones).

Action doesn't have any negative effect to environmental issues.

  - Financial: Approaches to cost estimation and securing funding (public, private, or mixed).

Action need only low public fundings, will be part of updated but standard planning activities.

  - Regulatory: Compliance with safety regulations, environmental permits, and operational standards

Action needs to change competencies in spatial planning focused railway lines and rail transport.

- Financing Resources:
  - Please indicate funding sources, considering various forms of investment models (e.g., public funding, private investment, PPPs, EU programs).
  - Indicate potential funding sources at national, regional, and local levels.

Re-evaluation process will be done by ŽSR as railway infrastructure manager with cooperation of national and regional special planning authorities so will be funding by public funds.

- Timeframe:

  Please provide a realistic timeline for implementation, including key milestones.
  - Start Date: [10/2026]
  - End Date: no end date
- Risks and Mitigation: List potential risks and how you plan to address them

The main risks are political and financial as well as the lack of interest of public and private institutions to be involved in spatial planning focused on railway lines and rail transport.

F. Monitoring and Evaluation

Monitoring Mechanism

- Explain how the implementation of actions will be monitored.
- Include a schedule for periodic reviews and evaluations (e.g., mid-term, final assessment).

Responsible for implementing will be the bodies, which will implement them and monitoring will be secure by bodies, which will financing the implementation. If will be used public funding, the implementation will be monitoring by standard tools for using public funds. Schedule of monitoring activities will be according to the standards for using public funds.

Performance Indicators (KPIs)

- Provide a list of measurable indicators to evaluate the success of the Action Plan (e.g., increase in rail freight usage, reduction in emissions, improved logistics efficiency).

KPI depends on every action. In action 1 it can be on volume of SWL transported by every year calculated in standards transport indicators. In action 2 it can be number of database visitors and for action 3 is KPI not applicable, because this is focusing on periodic re-evaluation not on performance.

G. Conclusion and Next Steps

- Summarize the expected impacts of the Action Plan on the region's transport and spatial planning.

Implementation of actions can improve current state of rail transport with focusing on implementing regional lines to special planning and providing transport services in regions.

- Recap the Social, Transportation , Environmental, Business and Industry Benefit

Benefits of every action is described in previous part of plan.

- Outline follow-up activities, including actions required to ensure long-term sustainability and potential integration into broader frameworks.

First action needs support and funding every year, second and third action needs fundings mainly on beginning, later should be part of standard duties of public authorities.
