Report on the work performed in regard to Transport Development Strategy of the Republic of Slovenia with Summary, including environmental protection requirements, taking into account opinions and observations made during public display of the document, rationale for the selection of the alternative proposed and description of method for monitoring the implementation of the Transport Development Strategy of the Republic of Slovenia in the future

The Article 47 of the Environmental protection Act of the Republic of Slovenia defines that responsible ministry which prepares particular strategy should informs other ministries, stakeholders and member states when Strategy is once adopted. The content of this report should include particularly:

- Description on inclusion of the environmental requirements into the strategy and results of the assessment of alternative scenarios,
- Explanatory note in regard to the observation of opinions and comments from the public consultation of the document and the transboundary impact assessment and
- The monitoring of the implementation of strategy in connection with the impacts on the environment

The following text is prepared to fulfil the requirements of above mentioned article.

I. Introductory explanatory note on the work performed in regard to the Transport Development Strategy of the Republic of Slovenia and Summary

After the independence, the Republic of Slovenia has started building the motorway network on the Pan-European Corridors V and X at an accelerated pace. During this period, it was realised that there is a great need for the railway transport network to be modernised. There was not enough money available for developing the road network and railway network at the same time; as a result, as regards the railway, with some exceptions, only the most urgent transport infrastructure investments have been implemented, especially related to the regular and major maintenance, and even these works were carried out to a limited extent. The plan was to start the cycle of larger-scale railway infrastructure investments when the construction of the motorway network is completed.

Large scale railway infrastructure investments were determined in the Resolution on Transport Policy of the Republic of Slovenia of 2006 (Resolution on Transport Policy of the Republic of Slovenia (ReTPRS) (Intermodality: Time for Synergy), Official Gazette of the Republic of Slovenia, No. 58/06). Even though the motorway network has been mostly constructed, intensive railway infrastructure investments started only with the expiration of the Financial Perspective 2007-20013 (FP), specifically, during the 2013-2015 period, when Slovenia wished to spend the cohesion funds allocated to Slovenia within this FP but a clear vision how to manage all of the infrastructure investments was missing.

The railway infrastructure investments have caused the investments into the state road network to come to a standstill. This has led to the deteriorated status of the national roads, making the status of some of the bridging structures almost critical in terms of their safety. The road transport investments must also be provided for, while at the same continuing to provide for the large scale railway infrastructure investments, in order to achieve the necessary capacity of the railway network.

At the moment, there are not enough funds available for both. One of the reasons for the lack of funds is the economic and financial crisis, in addition to the lack of an integrated transport infrastructure investment plan.

On its 37th regular session on 15 November 2013, the Government of the Republic of Slovenia (hereinafter: the Government), while discussing, under the agenda item no. 1.13, the Information in regard to the Proposal for Regulation on Guidelines for the development of the trans-European Transport Network and the Proposal for Regulation on establishing the Connecting Europe Facility, by virtue of the Decision No. 54948-24/2012/4, imposed on the Ministry of Infrastructure and Spatial Planning to prepare a coordinated plan of transport infrastructure investments by 2020 and the vision of transport infrastructure investments by 2030; for the longer period, the Ministry was tasked to develop the vision only if it is beneficial for the integrity of the investment plan, by taking into account the above mentioned information and discussion held at the Government session.

For this purpose, a working group was formed in April 2013, for the development of the Resolution on the National Development Plan for Public Transport Infrastructure in the Republic of Slovenia by 2020 with a vision of up to 2030.

The purpose for preparing the resolution was:

- to define an integrated development of transport and transport infrastructure by 2030 (and beyond, if this may be found necessary for the integrity of the task),
- on this basis, to provide for the regular and stable financing of the transport infrastructure,
- to provide for the basis for the drawing of the EU funds in the 2014-2020 Financial Perspective (ex-ante conditionalities).

Considering the original purpose, the latter lead to the extension of the Strategy's area of application, since, in addition to the transport infrastructure, the Strategy had to include the management, maintenance and the operation of the transport system, with a particular reference to the public passenger transport, the intelligent transport system (telematic applications), logistics and alternative fuel infrastructure. It was not only about the national infrastructure programme any more, but it was about an integrated approach towards transport in order to ensure greater synergy in attaining the objectives of transport and spatial policies of the Republic of Slovenia and other policies being affected by the transport (the environment) or for which the transport is important (the economy).

Providing for the satisfaction of the ex-ante conditionalities related to the drawing of the EU funds became an increasingly important priority in 2014. The EU representatives and their technical assistance (EIB - Jaspers) insisted on developing a document for this purpose with more general measures. Their guideline was to focus on all of the measures that are necessary in the field of transport in the Republic of Slovenia, regardless of the financial situation and the time horizon. In this regard, all of the possible alternatives to solve a certain problem were advised to be examined, and it was also suggested to solve several problems with one or more measures. In addition, they explicitly insisted not to focus on projects which have already been prepared for being implemented in order not to jump to conclusions regarding their eligibility. The projects were to be developed following a suitable procedure during the preparation of the feasibility studies, while examining other possible alternatives (when existent) and taking into account environmental, spatial and social acceptability. The requirement was that the selection of an individual project must be substantiated with the cost - benefit analysis.

It was decided that the preparation and the adoption of this document was to be divided into two phases; specifically, first the Transport Development Strategy of the Republic of Slovenia (hereinafter referred to as: the "Strategy"), was to be adopted, which was planned to be followed with the plan for its implementation with a priority order regarding the implementation of investments, funding, time periods and responsible bodies.

The following activities were carried out in relation to the preparation of the Strategy:

- the relevant transport legislation of the Republic of Slovenia and the EU was reviewed and summarised;
- the Spatial Development Strategy of the Republic of Slovenia, 2004, was reviewed and summarised;
- the SWOT analysis (strengths, weaknesses, opportunities and threats) was made,
- the vision was defined and objectives and indicators were set,
- the national transport model was developed and used for the analysis of the actual requirements, and on this basis
    - the analysis of "0" scenario was made (“do nothing”),
    - four alternative development scenarios were developed and analysed,
    - the fifth, and that was the best possible alternative was prepared,
    - when preparing the Strategy, analysis of “do-nothing” scenario was mostly taken into account (owing to the requirements related to ex-ante conditionalities mentioned above),
- the strategic environmental assessment (SEA) was carried out and in this regard the following documents were produced:
    - the scoping report on the extent of the SEA ,
    - the Environmental Report for the SEA ("Environmental Report"),
    - the opinion of the responsible ministry in regard to the acceptability of the Environmental Report was obtained,
    - the public consultation regarding the Strategy and the Environmental Report for the strategic environmental assessment regarding the Strategy was organised,
    - the transboundary impact assessment was made,
    - the analysis of comments received during the public consultation was made, and the viewpoints regarding these comments were developed, resulting in the amendments made to the Strategy and the Environmental Report,
    - the ministry responsible for the environment issued the final decision on the suitability of the Environmental Report and about the observance of their recommendations in the Strategy.
- on this basis the final text of the Transport Development Strategy of the Republic of Slovenia was prepared.

The vision of the transport policy is defined as the provision for the sustainable mobility and supply to the economy with the following general objectives:

- to improve the mobility and accessibility,
- to improve the supply of the economy,

- to improve the traffic safety and security,
- to reduce the consumption of energy,
- to reduce the costs borne by users and operators,
- to reduce the environmental burden.

The national transport model was finally developed and applied when the Strategy was being prepared; the model is composed of the internal (Slovenia) and external (rest of Europe) transport model, together with models regarding the environmental impacts and traffic safety. All models have been integrated into one whole and are of strategic nature.

The environmental impact and traffic safety model has been developed only for Slovenia.

The passenger and freight transport was assessed with the model.

The analysis of the "0" alternative, by way of which it is envisaged that nothing is done in the future in the area of transport, except for preserving the existing status of transport infrastructure (maintenance) and completing the on-going projects, the following issues have been raised:

- the motorised vehicle traffic would increase while the public passenger transport would decrease,
- the freight transport by road would increase at the expense of the railway transport,
- the capacity of railway lines would be exceeded in almost all sections,
- there would be constant traffic jams on roads, especially on roads entering the capital city,
- there would be a huge lack of parking places for trucks,
- the standards for the TEN-T core network would not be attained by 2030 as required by the EU regulations in this field,
- the accessibility of regional centres would decrease,
- the development of the Port of Koper would be prevented as a result of lack of railway capacities,
- the traffic safety would completely deteriorate, especially in the area of the road transport,
- the unfavourable environmental impacts of the traffic and transport would increase beyond the thresholds adopted at the level of the EU and Slovenia (air pollution, greenhouse gas CO2, noise pollution etc.),
- the quality of life in cities and in the countryside would deteriorate due to the external costs of transport (traffic jams, accidents, greater GHG emissions and noise emissions, the growth of fuel costs, the reduction of the quality of free time).

Based on the above mentioned starting points and findings from the analysis, the Strategy proposal was made. When drafting the proposal, the following was taken into account: the capacities of the existing traffic infrastructure should be utilised to the greatest possible extent while seeking for solutions for which not large financial investments are required, such as transport management systems, the introduction of intelligent transport system, smaller-scale investments into infrastructure improvements projects, reconstruction projects and similar. Only when such measures failed to produce results, the focus would be placed on large-scale investment projects, and even in this case, the problems identified at the expert level with the use

of the transport model, would be the basis to start the project. The Strategy has thus shifted from the facility-related approach (what can be constructed) to the problem-related approach (how can problem be solved in the most effective and sustainable manner while contributing to the development of the economy and the social acceptability of traffic and transport).

The general direction pursued during the work performed concerned the environment-friendlier transport modes (the railways) and sustainable mobility, in accordance with national and EU policies and legislation in this field.

While having regard to the current economic and financial situation in Slovenia and taking into account the recommendations of the Environmental Report for the strategic environmental assessment, a general recommendation was given for each infrastructure measure described in the Strategy, i.e., that the option for achieving the suitable effect on the existing infrastructure (modernisation, reconstruction projects, improvement of the existing infrastructure) should first be examined during the implementation of a particular measure. If this option is not feasible, it was recommended that new route should be partially or fully determined. In an event that reasonable and reliable studies have already been produced for that purpose, they should not be repeated, and if not, it was proposed to do so, regardless of the plans and projects already adopted. It was found out by the Strategy that this is urgent from the point of view of the principle of economy since projects must follow measured referred to in the Strategy, and, first and foremost, solutions must be based on actual problems and verifiable requirements. The preparation and the selection of an individual project must be substantiated with the cost - benefit analysis, while taking into account the environmental limitations.

Special objectives were set in regard to their determination, specifically:

- the improving of the transport connections with the neighbouring countries,
- the improving of the national and regional connection inside Slovenia,
- the improving of the passenger accessibility to the capital city agglomerations and accessibility inside them, and
- the improving of the organisational and operational structure of the transport system in order to provide for its efficiency and sustainability.

General objectives aim to achieve an effect in the area of transport in the future, while special objectives are aimed at achieving the efficiency and eligibility of measures.

On the basis of forecasts regarding traffic flows, traffic safety, environmental impacts and social acceptability (the required accessibility pursuant to the Spatial Development Strategy of Slovenia), the future **transport measures** were determines for each transport mode (maritime transport, aviation, railways and roads) and for the public passenger transport and sustainable mobility. The following was defined:

- 29 measures for railways,
- 37 measures for roads,
- 22 measures for public passenger transport and sustainable mobility,
- 14 measures for water transport (sea and inland waterways) and
- 6 measures for aviation.

The total of 108 measures was identified, not relating only to the infrastructure but also to the organisation and management of transport, traffic safety and the vehicle fleet, as demonstrated in the table below.

	Measures on elements (sections) of the network	Measures on the network	Organisational (horizontal) measures
Railway network	11	4	14
Road network	22	7	8
City (urban) network	4	7	11
Water transport	6	3	5
Air transport	3	2	1
Total	**46**	**23**	**39**

II. Inclusion of the environmental requirements into the Transport Development Strategy in the Republic of Slovenia and results of the assessment of alternative scenarios:

The Strategy has been classified among programmes which are likely to have significant effects on the environment, which is why, in accordance with the Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, prior to its adoption, the effects of impacts planned in the Strategy and the effects of alternative measures on the environment should be assessed in the procedure for the strategic environmental assessment, and take a stand in regard to those impacts and measures which are not admissible due to their impact on the environment. The Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment requires from the Member States to also take a position and have a consultation in regard to the transboundary effects of the planning of plans and programmes.

The ministry responsible for the environment issued the Decision No. 35409-24/2012/14 on the basis of which and in accordance with the Environmental Protection Act, the procedure for the strategic environmental assessment had to be carried out during the preparation of the Strategy, and pursuant to the Nature Conservation Act, the process for the assessment of acceptability of impacts caused by the execution of plans and activities affecting nature in protected areas was also conducted. The purpose of both regulated assessments was to prevent or at least reduce significantly the activities with potential significant adverse effects and impacts on the environment and protected areas, by means of which the principles of the sustainable development, integrity and prevention are being applied. In the strategic environmental assessment, the impacts on the environment are determined on the basis of the environmental plan. The procedure is managed and led by the ministry responsible for the environment. The cooperation of all of responsible authorities and organisations is provided for, and the communication and participation of the public is ensured.

The purpose of the strategic environmental assessment is to ensure a high level environmental protection and to contribute to the inclusion of environmental aspects into the preparation of the Strategy which is why the authors of the Environmental Report were included into the process for the preparation of the Strategy in the initial phases of the document preparation. The process for the strategic environmental assessment has been concluded with the issue of the Decision on the suitability of the Environmental Report and the Strategy.

In accordance with the Environment Protection Act, a position in regard to a broader scope of environmental policies and objectives of the environment protection must be taken during the process of the strategic environmental assessment. During the process for the strategic environmental assessment and within the

scoping phase, the report entitled "Platform for Development of Environmental Report for Development Program for Transport Infrastructure in the Republic of Slovenia" was produced. In this report, the following was defined:

- environmental objectives of the programme in regard to the characteristics of the programme, and especially its area and content;
- the assessment criteria which may represent the levels of derogations from the environmental indicators, the level of the realisation of environmental protection objectives and other criteria which ensure the suitable assessment of impact;
- the relevant environmental areas which are being assessed,
- the methodology for identifying the impacts.

The proposal for the report "Platform for Development of Environmental Report for Development Program for Transport Infrastructure in the Republic of Slovenia" was produced in February 2014 and submitted to the responsible ministry for preparing an opinion; the ministry obtained the opinions from the relevant bodies responsible for the organisation of spatial planning. The report was amended on the basis of opinions and harmonisation in June 2014.

In accordance with the Decree laying down the content of Environmental Report and on detailed procedure for the assessment of the effects on certain plans and programmes on the environment (Official Gazette of the Republic of Slovenia, No. 73/05), the effects of the implementation of the Strategy on the environment are defined, described and assessed (the impacts on the soil and mineral substances, air, water, climatic factors, nature, cultural heritage, landscape, human health and material assets). In accordance with regulations regulating the nature conservation (Rules on the assessment of acceptability of impacts caused by the execution of plans and activities affecting nature in protected areas (Official Gazette of the Republic of Slovenia, Nos. 130/04, 53/06 and 3/11), the assessment of the acceptability of impacts caused by the implementation of the Strategy on protected areas was made.

The environmental assessment was carried out according to the environmental aspects and according to the groups of measures for each of 21 sub-objectives of the Strategy, specifically, in regard to the attaining of an individual environmental goal which has been defined. It has been generally concluded that by means of a suitable location and siting of developments in the environment and by implementing all the mitigation measures, all groups of measures from the Environmental Report are acceptable.

At the end of June 2014, the Environmental Report was first submitted to the ministry responsible for the environment in order to produce an opinion. The Ministry has invited all the relevant stakeholders dealing with the spatial management to prepare their opinions; these stakeholders included the Ministry of Culture, the Institute of the Republic of Slovenia for Nature Conservation, the Slovenian Environment Agency, the Water Management Office, the Ministry of Health and the Slovenia Forest Service. After obtaining the opinions of the above mentioned stakeholders, by virtue of the Letter No 35409-24/2012/40 of 26/09/2014, the ministry responsible for the environment required that the Environmental Report should be amended. On the basis of the letter, the meetings for the harmonisation of the content were organised and the environmental report was amended. On 14 November 2014, the ministry responsible for the environment issued the opinion on the acceptability of measures (Opinion No. 35409-24/2012/45).

After obtaining the positive opinion, the environmental report was translated into English and submitted to the relevant parties to undergo the transboundary assessment and was published publicly.

After the public consultation was concluded, the ministry took a position in regard to comments made and, in accordance with this position, the proposal for the Transport Development Strategy in the Republic of

Slovenia was prepared in April 2015. The Strategy proposal was then amended in May 2015 and July 2015. The environmental report was also amended (April 2015, May 2015, July 2015).

The results of the assessment of the alternative scenarios show that almost all measures envisaged are highly or partially compliant to the environmental objectives but, for reducing the impacts on the environment, at least the basic mitigation measures as referred to in the legislation will have to be implemented practically for all of the developments. The assessment of the alternative scenarios has demonstrated that for the provision of sustainable and nature-friendly development, when selecting the measures, the priority should be placed on the development of the public transport, railway transport and water-borne transport against the road transport and air traffic and reconstruction projects and new construction projects. Individual measures in regard to the railway network, road network and aviation have been assessed as conditionally compliant to the environmental objectives in question. The conditionally compliant measures of the transport policy are:

- Railway transport:
    - R.1 Koper–Ljubljana,
    - R.3 Ljubljana–Jesenice;

- Road transport:
    - Ro.9 connection of Koroška with the motorway system,
    - Ro.9 connection of Hrastnik with Zidani most,
    - Ro.9 connection of Kočevje with Ljubljana,
    - Ro.12 the Ljubljana Ring Road and intersections and the rearrangement of the inter-connecting roads,
    - Ro.15 connection of Škofja Loka/Medvode with Ljubljana,
    - Ro.16 road network around Maribor,
    - Ro.9 connection of Ilirska Bistrica (CRO) with the motorway system,

- Air traffic:
    - A.2 Edvard Rusjan Maribor Airport,
    - A.3 Portorož Airport.

During the process for the strategic environmental assessment, it was established that the implementation of the Strategy will probably have important transboundary environmental consequences. In accordance with the Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, in June 2014, the responsible ministry initiated the transboundary consultation process in accordance with the Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context. The Report on the implementation of the transboundary procedure was also prepared (Aquarius d.o.o., Ljubljana, July 2015).

Explanatory note in regard to the observation of policies and mitigation measures prior to the public display of the document

The production of the environmental report was conducted in parallel with the preparation of the Transport Development Strategy of Slovenia. On the basis of the environmental report, the total of twelve new transport measures were developed, and three existing measures were amended. The measures include such measures with which the additional verification of the realisation of an individual sub-goal is required, or the Strategy measures are required to be amended.

In October 2014, on the basis of policies and mitigation measures referred to in the environmental report, the Strategy was amended in regard to the following transport measures:

- measures for the road infrastructure: Ro.44, Ro.45, Ro.46, Ro.47, Ro.35, Ro.48;
- measures for the railway infrastructure: R.41, R.42, R.43, R.44;
- measures for the urban infrastructure: U.40, U.41;
- measures for the water-borne transport: M.35;
- measures for the air traffic: A.3;
- the following measures: R.7, R.8, R.9 in R.10 have been included in the 2(a) sub-goal
- the measure R.3 was deleted from the 2(b) sub-goal;
- the measure Ro.7 was included in the 2(d) sub-goal.

Explanatory note in regard to the observation of comments after the public display of the document

After the public display was concluded, the viewpoints were formed from the aspect of the environment protection (Final Report on Implementation of Public Display (Aquarius d.o.o., Ljubljana, May 2015).

The amendments made to the Transport Development Strategy of the Republic of Slovenia included amendments in regard to the text and in regard to transport measures. The authors of the environmental report reviewed all the supplemented transport measures and established that the measures Ro. 13 and Ro. 17 must be assessed again, since, in terms of the environment protection issues, they had changed significantly. Three new measures in relation to the water borne transport were added to the transport measures, and these underwent additional assessment.

In regard to the comment on the noise caused by the railway at the Zalog marshalling yard station, the Environmental Report was supplemented in Chapters 8.1.6 and 10.6.2, and the amendment was made to the Strategy in regard to the measure R.39.

The data on the current status of the air quality in regard to the ozone were supplemented in Chapter 5.1.2. In Chapter 10.2, the mitigation measures for the air quality in city centres were supplemented with the proposal for the introduction of low emission zones, and the measure R.39 was similarly amended.

From the aspect of impacts on the environment, the following transport measures referred to in the Strategy were significantly amended:

- R.39 Environment impact minimisation,
- Ro.33 Environment and road safety,

- Ro.45 Reducing pollutants,
- U.40 Reducing pollutants,
- M.6 Construction of inland waterway on the Sava River between Brežice and Obrežje in line with the international categorisation system,
- M.35 Minimisation of negative impacts on the quality of the sea and inland waters,
- M.36 The identification of the navigable categories of the inland waterways in Slovenia in line with the regional categories (I - III) in the area of rivers and lakes with the relevant conditions,
- Specific mitigation measures have been included in the following measures: R.39, Ro.33, U.40, A.2, A.3 and M.35.

The designation of the following measures has been changed: R.39, Ro.33, U.40 and M.35.

On the basis of comments received, Chapters 5.1.3 and 8.1.3 of the Strategy, "Climatic Factors" have been amended, specifically, in regard to the adapting to the climate change and mitigation measures. The amendments were made by means of documents which were prepared by the Ministry of the Environment and Spatial Planning and the Biotechnical Faculty in November and December 2014.

In July 2015, the Chapter 11 of the report, "Monitoring", was supplemented, specifically, in regard to the indicator monitoring of the chemical and ecological status of the sea. The amendment was done on the basis of comment submitted by the Republic of Italy.

The amendments to the Transport Development Strategy in the Republic of Slovenia resulting from the public display of the document and the transboundary impact assessment are presented in detail in the next chapter.

III. Explanatory note in regard to the observation of opinions and comments from the public display of the document and the transboundary impact assessment:

The public consultation for the Strategy and the Environmental Report for the strategic environmental assessment in regard to the Strategy took place between 15 December 2014 and 31 January 2015.

For this purpose, the ministries responsible for transport and the environment published the Strategy (Version 9.5 of October 2014) and Environmental Report (October 2014) on their web site in Slovenian and English. The documents were published in both languages because the transboundary consultation with the neighbouring countries was conducted simultaneously as the public presentation and display of the documents in Slovenia. It was stated on the web site that all interested parties (stakeholders) were invited to send their comments, and the method of sending and the address where to send them to was published. In addition, it was also published that the public presentation on the above mentioned documents was planned to take place on 9 January 2015 at the Ministry of Infrastructure, Langusova 4, 1000 Ljubljana, in the conference hall on the first floor, starting at 9:30 hours; the web address to register for the event was also given.

Representatives of municipalities, regional development agencies, non-governmental organisations, ministries, and infrastructure operators, chamber of commerce and industry, chamber of craft and small

business, professional association, civil initiatives and some individuals took part in the public presentation of the two documents.

In addition to the above mentioned presentation, the team preparing the Strategy and the ER took part in presentations organised by municipalities (for example, Idrija, Ormož), conferences (for example, InfraKon), round tables (for example, Coalition for Sustainable Transport Policy and Plan B) and on radio station Ognjišče.

a) Analysis of comments

The majority of participants taking part at presentations submitted their written comments about the Strategy and ER; actually there were no other comments expressed on presentations but those that were expressed in a written form.

Sixty contributions with proposals, comments or observations about the Strategy and ER were sent to the address which was published on the web site and to the address of the ministry responsible for infrastructure. These contributions were sent by NGOs., civil initiatives, municipalities, regional development agencies, ministries, chamber of commerce and industry and some individuals. It must be emphasised that the majority of comments referred to the Strategy and only few to the ER.

The majority of comments referred to the following issues:

- that certain stakeholders had been too little involved in the Strategy's preparation process,
- that some regions have not been well represented in the Strategy,
- that the Strategy has not taken into account the already adopted spatial plans and those spatial plans in the process of being developed, thus consequently failing to observe the solutions already made, sections and routes,
- that the Strategy has focused too much on the forecasts of future traffic flows, the average annual daily traffic (AADT) and economic eligibility of projects,
- that the Strategy wishes to eliminate problems by means of upgrading the existing infrastructure on the existing routes and that, as a result, the Strategy is not ambitious enough,
- that no financial sources have been stated, no time schedules (with deadlines) have been given and no bodies responsible for the implementation of projects and measures,
- that certain data had to be updated (for 2014 or add the newest data on the state of the railway infrastructure),
- that national transport model is not suitable and that no peer review has been made in that regard and that therefore it does not belong to the Strategy, and in addition, the transport model and the transport forecasts cannot be the only tool in determining the measures,
- that the target year 2030 which has been taken into account in the transport model is too short,
- that the document is too extensive,
- that the problem of railway noise has not been properly or not enough dealt with in the Strategy,
- that the Strategy and ER has not encompassed issues with the ozone,
- that the increase in traffic is too much linked to the growth in GDP, and
- that the title of the Strategy should be extended to also include the logistics, mobility and similar terms.

b) Answers to comments

The team preparing the Strategy stressed several times at presentations that, at the initial stage of the Strategy preparation in 2013, the basic area of interest for the Strategy was only the infrastructure with the purpose of defining the financial sources, time periods and bodies responsible for the implementation of

measures in this field, in addition to defining the integrated infrastructure development. In the following phases it was determined that the preparation and adoption of this document was to be divided into two phases, to first adopt the Transport Development Strategy of the Republic of Slovenia and on its basis the Operational Plan for Strategy's Implementation, including the priority order of investment implementation, financial sources, time periods and responsible bodies. The Operation Plan is under preparation, and it is expected to be prepared for internal consideration by the summer of 2015.

A condition for ensuring the ex-ante conditionalities was also the requirement for the infrastructure measures and measures in regard to the public passenger transport referred to in the Strategy to be determined on the basis of a relevant national transport model which will enable an equal treatment of all requirements of the transport system, and the implementation of the strategic environmental assessment in that regard. Both requirements were satisfied. The Strategy also includes the horizontal measures which are based on additional analysis, for example, on the demonstration of the state of carriageways, the state of traffic safety, and similar data.

When preparing the Strategy, it was possible to choose among several methods of structuring the document. The authors of the Strategy chose the logical method which takes into account the analysis of the situation and problems, determines a vision for them, together with objectives and indicators and special objectives. This procedure is followed by the definition of the measures which represents the main part of the document, in addition to basic policies (sustainable mobility, the development of the railways and the public passenger transport on the basis of realistic requirements as determined in the traffic forecasts, traffic safety, environmental and social acceptability).

In addition to the employees of the Ministry of Infrastructure (MoI), colleagues from other ministries (mostly from the areas of work dealing with the environment and spatial planning) also took part in the preparation of the document, together with fellow workers from the bodies affiliated to the MoI, some key organisations from the area of transport, for example, representatives of the Port of Koper, the Motorway Company of the Republic of Slovenia, the Slovenian Railway, Slovenian airports. Meeting with NGOs were also organised and held. Some companies which have been selected following the public procurement procedure took part in the preparation of the required expert bases which are necessary for the preparation of such document. These companies were: PNZ, d.o.o for the development of the transport model, Aquarius, d.o.o. and the collaborating companies prepared the environmental report for the strategic environmental assessment, and DRI, d.o.o. which participated with consultations in the production of data on maintenance and safety in road transport. The company: EIB – Jaspers rendered advisory services.

On the basis of the above-stated the following has been stated:

- that n**o actual (concrete) projects can be stated in the Strategy since the document is intended for the definition of measures at the general level.** For example, it is stated that the connection in the area of railways or roads from the destination A to the destination B is needed, but not where such route will be placed. Sometimes it is only stated that the connection is necessary but it is not stated whether the connection should be of a railway or road transport mode. However, various alternative scenarios for a potential solution of a problem can be given (for example, the connection of Kočevje with Ljubljana – measures Ro.11 and U.3). This solution is supposed to be demonstrated by concrete studies. The measure stated in the Strategy provides a clear platform (a base for a project) of how a certain project must be prepared in the next phases.
  It is stated everywhere why a certain measure is needed; for example, if an issue regarding traffic safety has been identified in a certain area, together with poor accessibility (too lengthy driving time), then such solution must be ensured that the safety in road transport and the accessibility (the driving

time will be reduced) will be improved, while obviously taking into account the forecasts regarding traffic flows in the future. If a certain section will be less burdened (for example, less than 10,000 vehicles/day), then a dual carriageway must be constructed there, if traffic is forecasted to be more intense, more carriageways should be planned or possibly a higher-ranking road, regardless of decisions already made.

For example, even if in a certain case the decision has been made to construct a motorway, and such connection has not been proven as eligible by the expected traffic burdens, the Strategy has imposed on the bodies responsible for the area in question to re-examine the rationale for such a connection. It has been concluded by the Strategy that there are quite a few "too rich projects" in Slovenia which do not match the actual situation and the forecasts made. Consequently, such infrastructure is not being constructed, and their construction is not envisaged for the near future, while on the other hand, the existing connections in these areas are not being maintained or improved since it is assumed that a new connection will be built in the future. As a result, the accessibility in such areas is not being improved; on the contrary, it is being deteriorated. Such situations are desired to be prevented with the Strategy.

- It needs to be pointed out that **when defining individual measures**, not only the traffic flows forecasts resulting from the transport model were taken into account, but **traffic safety**, and **impacts on the environment and social acceptability** (the required acceptability on the basis of the Spatial Development Strategy of Slovenia) were observed.
- This was taken into account in regard to all functional regions in Slovenia, and the necessary measures were defined in accordance to those standards. It needs to be highlighted that the regions in Strategy have been defined as traffic-gravitational areas (7 areas were defined); the Strategy, however, does not wish to jump to conclusions regarding the future definition of regions in Slovenia. But the authors of the Strategy are convinced that all regions have been **properly included in the Strategy**, **certain areas of these regions will be added and described in detail** within the scope of the existing measures, which is presented in the remainder of the text. Three urban hubs of special significance for the development of transport have been additionally dealt with. These are: Maribor, Ljubljana and Koper.
- While having regard to the current economic and financial situation in Slovenia and taking into account the recommendations of the environmental report for the strategic environmental assessment, **a general recommendation was stated for each infrastructure measure described in the Strategy, that the option for achieving the suitable effect on the existing infrastructure** (with upgradings, reconstruction projects, modernisation projects) **should first be examined during the implementation of a particular measure**. If this option is not feasible, it was recommended that new route should be partially or fully determined. In an event that reasonable and reliable studies have already produced for that purpose, they should not be repeated, and if not, it was proposed to do so, regardless of the plans and projects adopted. It was found out in the Strategy that this is urgent from the point of view of economy since projects must follow measured referred to in the Strategy, and, first and foremost, solutions must be based on actual problems and verifiable requirements. The preparation and the selection of an individual project must be substantiated with the cost and benefit analysis, while taking into account the environmental limitations.

In regard to the data on traffic flows and state of infrastructure, it is believed that

- **regardless of the fact that some data are older this does not have a significant impact on the quality of results of the transport model.** The availability of basic data needed for the modelling, and the time needed for the modelling cause a certain lag in time between the basic year and the year of use to always exist. in 2012, when starting with the modelling of CETRA model, the data for 2011 were available. The older data were only the data from the survey done in households (from

2003), which, unfortunately, represents the only such source of data. These data were suitably applied by means of other statistical data (GDP growth, growth in traffic, and others). A few year difference between the year used in the model and the base year is also typical for foreign countries (for, example, in the Austrian national model Verkehr 2025+ from 2009, the base year is 2006, and in the developing German model for forecasts in 2030, the base year is 2010).

- In regard to the state of infrastructure (for example, the wear out of railway lines and similar), the necessity of the relevant maintenance was aimed at being justified when referring to data. Even in case of the availability of newer data, it is certain that the state has not been improved in the recent years, on the contrary, it has deteriorated (considering the situation of public funds allocated for this purpose). It is believed that the presentation included in the Strategy is sufficient for justifying the measures taken in this field, specifically, that it is necessary to provide for a relevant funding for the infrastructure maintenance.
- in spite of everything, all operators will be invited (some have already been invited) to submit newer and detailed data and if these are submitted, they will be used in the upgraded version of the Strategy.

In regard to the content of the **Strategy in connection with certain environmental issues,** it must be pointed out that the Strategy is a development document in the area of transport, prepared in accordance with the Regulation (EU) 1315/2013[1]. The development policy in the area of transport is expressed in the Strategy as agreed by the Member States and the EU Commission upon the adoption of the above mentioned Regulation. On the basis of its policies, the measures from the Strategy ensure that certain optimum level is agreed between the Member States from the aspect of international traffic demand and compliance with the objectives of the sustainable development of the EU on the whole and in the individual Member States.
The Strategy summarizes the corridors agreed on the core network in accordance with the Regulation (EU) 1316/2013[2] and discusses the measures for the attainment of objectives set for these corridors and on their routes through the territory of the Republic of Slovenia.

In accordance with Regulation No. 1315/2013, the Strategy provides for the fulfilment of special objectives in the territory of the Republic of Slovenia which enable smooth, safe and sustainable mobility of persons and goods, the accessibility and connection of all regions of the Union and contribute to the further economic growth and competitiveness on the global scale.

In accordance with the above mentioned Regulation, the measured from the Strategy will contribute to the strengthening of the social, economic and territorial cohesion of the Union and contribute to the establishment of a Single European Transport Area which is efficient and sustainable, which increases benefits for its users and supports the inclusive growth and contributes to the objectives within the scope of the following four aspects:

- cohesion,
- efficiency,
- sustainability, and
- increasing benefits for its users.

In connection with the sustainability, the measures from the Strategy are based on:

[1] Regulation (EU) No. 1315/2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU, http://eur-lex.europa.eu/legal-content/SL/TXT/PDF/?uri=CELEX:02013R1315-20131221&from=EN
[2] Regulation (EU) No. 1316/2013 establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010

- the development of all transport modes in a manner which is consistent to the provision of the and sustainable and economically efficient transport in the long run;
- contributing to the objective of low-carbon and clean traffic with low emissions of GHGs, safety in the fuel supply, reduction in external costs and environmental protection;
- the encouragement of low-carbon traffic with the goal of obtaining a significant reduction in CO2 emissions by 2050, in accordance with the relevant objectives of the Union aiming at the reduction of CO2 emissions.

The GHG emissions have been dealt with in detail in the Operational Programme of measures for minimising greenhouse gas emissions by 2020 with an outlook by 2030 (hereinafter referred to as: "OP GHG") which was adopted by the Government of the Republic of Slovenia at the end of 2014. The expectations in regard to the reduction in GHG emissions from the transport which have been defined in quantity terms in OP GHG have been fully satisfied by the measures defined in the Strategy.

In regard to the air pollution, the commitments adopted within the EU have been taken into account in the Strategy and it cannot aim at setting of new goals in this regard. This is a task to be done by another sector. In relation to the air pollution resulting from traffic in the vicinity of city centres, two measures have been clearly emphasized in the Strategy:

- the construction of bypass roads around city centres in order to provide for better traffic flow capacity, and
- the production, adoption and implementation of programmes for the protection of ambient air quality against pollution in accordance with Directive 2008/50/EC.

Similarly, measures for transport limitation in city centres have been envisaged in the Strategy; in accordance with the author's initiative, these measures should be describe so as to be understandable for a broader circle of readers as the measures for the introduction of low emission zones.

The requirement for a renewal of the operational programmes on the protection against noise caused by railway transport, which also indicated the preparation of operational programmes for the missing areas, has been included in the measures R.39 and Ro.33. Nevertheless, the Strategy will be supplemented with an explicit requirement to develop operational programmes for all other areas, as required by Directive 2002/49/EC relating to the assessment and management of environmental noise.

The environmental burden due to noise caused by railway transport is generally high and has been increasing in the past years mainly due to constant increase in the freight transport, increasing wear of the rolling stock and poor state of the railway infrastructure, and due to densely built-up areas along the railway lines. The measures for reducing the noise pollution along the existing infrastructure network (important roads and railway lines and the settlement zones of Ljubljana and Maribor) are being implemented on the basis of operational programmes for the protection against noise pollution, hence, in the next period, the adoption and the implementation of these measures will be included among the priority tasks of the Ministry of Infrastructure, the Ministry of the Environment and Spatial Planning and the relevant city administrations. The infrastructure manager (for example, in the case of Ljubljana Zalog marshalling yard station, the Ljubljana City Municipality), the manager of public railway infrastructure in the Republic of Slovenia (SŽ Infrastruktura d.o.o.) and owners of vehicles on rail headquartered in the Republic of Slovenia (SŽ - Tovorni promet d.o.o. and SŽ Potniški promet d.o.o.) will take part in the development of measures. The interested public groups will also be included in the preparation of measures, together with the expert and general public on the local and national level. For the implementation of the operational programmes for the

protection against noise pollution on the existing railway network, the relevant financial funds will be provided for by the state from other sources, which will also include the internalisation of external costs of transport. The exception will be newly constructed facilities where the mitigation measures and funds necessary for them will be included in the spatial plan and the investment documentation; these measures will be implemented at the same time as the infrastructure investment.

The measured defined in the Strategy are general in nature and have not been placed into the environment or developed in a project that is why the environmental assessment of the railway infrastructure development was made on the strategic level. A more detailed presentation of the impact on the environmental burden due to noise as a result of the envisaged increase in transit transport on the national railway network has been envisaged within the scope of the strategic environmental assessment and the environmental impact assessment. Generally speaking, the noise emission due to railway transport will be increased owing to the re-routing of the transit transport to the railway network, but due to the envisaged modernisation of the rolling stock (particularly the freight wagons) and the modernisation of the railway infrastructure, a partial reduction in the noise emissions is envisaged, but extensive mitigation measures will have to be implemented in overburdened areas (noise barriers, lubrication systems, noise protection on buildings)

In the long term, noise protection measures along the railway network will be directed towards measures for the implementation of noise emissions caused by vehicles on rails and railway infrastructure which are the most efficient, measures for preventing the sound propagation and noise protection measures on buildings. The requirement for adapting the flow of wagons to the level which will not cause excessive noise pollution is not suitable from the point of view of integrity, of the discipline and social acceptability, and the requirement for limiting the transit transport on international railway connections is simply unrealistic.

On the European level, in accordance with the White Book on transport[3], Regulation for the development of the trans-European transport network[4] and TSI Guidelines[5], the measures for minimising noise pollution due to railway transport have been primarily directed towards the implementation of measures for reducing noise emissions at the source (modernisation of vehicles on rails and railway infrastructure). The measures limit emissions of individual categories of new vehicles on rail and lay down recommendations and guidelines for reducing the emissions of the existing vehicles (technical measures implemented on vehicles). On the European level, this issue is handled by the regulations on the technical specifications for the interoperability of the rail system within the Community, in accordance with Directive 2008/57/EC[6]. In case of the limitation of noise emissions from the vehicles on rail and railway network, this is done by the TSI Guideline 2001/229/EU[7].

The suitability of the **transport model**, the reason for its inclusion into the Strategy and the target year of 2030 have been justified and explained that the transport facilities and other measures are usually expensive and have long-term consequences. Hence, it is only reasonable to verify prior to their implementation what are and will be the expected issues, how to solve them and what will be the effects of these solutions. All of the above mentioned is verified by means of transport models.

[3] White Paper, Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0144:FIN:SL:PDF
[4] Regulation (EU) No. 1315/2013 on Union guidelines for the development of the trans-European transport network http://eur-lex.europa.eu/legal-content/SL/TXT/PDF/?uri=CELEX:02013R1315-20131221&from=EN
[5] http://www.era.europa.eu/Core-Activities/Interoperability/Pages/TSI-Application-Guide.aspx
[6] Directive 2008/57/EC on the interoperability of the rail system within the Community, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:191:0001:0045:sl:PDF
[7] Commission Decision No. 2011/229/EU concerning the technical specifications of interoperability relating to the subsystem 'rolling stock –noise' – of the trans-European conventional rail system http://eur-lex.europa.eu/legal-content/SL/TXT/?uri=uriserv:OJ.L_.2011.099.01.0001.01.SLV

The purpose for studying systems by using models is the fact that several effects may be identified without experimenting on a real infrastructure facility. In cases when a system in question and/or envisaged circumstances do not yet exist, this is the only method of study.

It comes with no doubt that studying systems only on the basis of statistical data is not only improper but also inadmissible. Since it does not provide for a reliable forecast of future conditions, and especially, it cannot enable to reasonably take into account various factors, for example, the selection of the means of transport, which easily leads to misleading and wrong decisions. For more than 40 years, the transport discipline around the world is convinced that only modern synthetic, mathematical transport models are capable to deliver credible and reliable study of transport systems. Hence the study of the systems is usually based on models and not only on statistical data.

There are several types of transport models. Which model will be applied depends on the type of the problem which needs to be solved. There is not a single one model that might answer all questions. There is, therefore, a series of transport models which, in term of hierarchy, can be indicated as: an international model, national model, regional model and local model. The upper models encompass wider areas and are more strategic in nature, and those lower in the hierarchy are focused on narrower areas and are more detailed. As a rule, the upper models are the basis for the lower models in the hierarchy.

For the evaluation of the national strategy, the national transport model is important. And each country has only one model. The national transport model is a model which complies with certain requirements, specifically: it includes the entire territory of the state and the necessary territory of the neighbouring and other states, it includes passenger and freight transport and all means of transport, it includes direct co-dependence between conditions in regard to the settlement location, social and economic conditions and transport conditions as given by elements of the transport system and is, therefore, for the passenger transport, a 4-level model, and for the freight transport, possibly, a 5-level model; the model includes the principle of the generalised price which includes the influence of the travel time and time driven, distances, fuel prices, ticket prices and charges, the availability and prices for parking spaces, the transportation costs, transhipment costs, and other factors. Thus, the travel habits are included (the number of journeys per day, the length of the journey, the selection of the transport mode) which, together with the social and economic data (number of inhabitants, number of work posts), represent a basis for the calculation of transport demand.

The model is thus based on objective basis and clear starting points and the results of the model do not depend on the entity working with it. The national transport model is strategic in nature as it does not include local journeys and transport patterns, traffic routes of lower ranks and no detailed modelling of individual areas and points in the network.

The starting points which have been used as the basis for transport forecast are reliable only for the next 15 to 20 years. Hence the reliable transport forecasts can only be made for such period of time. Later periods are subject to visions and not reliable forecasts.

The national transport model CETRA which has been applied in the evaluation of the Slovenian Strategy matches the above stated characteristic. This is a model of the second generation. The model of the first generation (called PRIMOS) underwent a peer review carried out by a Scottish expert in such models who found out that the model is suited for strategic evaluation. The said expert provided some recommendations which were mainly taken into account in the development of the second generation model (CETRA).

According to the decision made by the ordering party (MoI), the second generation model was not reviewed by peers. But it was determined by the Jaspers Agency, representing the interest of EC and EIB and monitoring the preparation of national strategies, that the model is suitable for the evaluation of the Slovenian Strategy and marked it as a case of good practice in the EU. It also requires from other countries located in the Central Europe to develop, within the scope of the preparation of the national strategies, such national transport models for the evaluation of their strategy and operational programmes, in case such models have not been developed yet. Currently such models are being developed in Croatia and Slovakia.

The national transport model CETRA was not developed within the scope of the Strategy preparation phase, but was only applied here. The CETRA model was developed in the Study for the evaluation of new railway connections: Divača - Ljubljana and Ljubljana - Zidani most in 2012 and 2013. Within the scope of this study, the calibration and validation of the model according to the international criteria was performed (see Volume: The development of Slovenian national model in central European framework - CETRA model and the transport forecasts for 2020 and 2030, pages 95–124, PNZ, 2013). The validation has demonstrated that the model imitates well the reality, responding realistically to changes.

This, however, does not mean that there are no deviations from the measured values on no section. The international standards allow for certain deviations on smaller number of sections in the network. The number of allowed deviations is higher for strategic models and smaller in case of detailed models. The deviations in the CETRA model are within the permitted limits. There is no national transport model without having any deviations on any section and that is not a problem, since the strategic model is a basis for strategic decisions. A credible and reliable transport, which is the CETRA model, enables a reliable determining of the expected demands of the transport system and further decision-making, for example, if a 2-line or 4-line road is needed on a certain route, what is the necessary capacity in a certain route, what is the line speed in a certain time period like.

The table below states data on social and economic indicators and transport in periods dealt with in individual transport models.

	Slovenia (2011-2030)	Austria[8] (2010-2025)	Germany[9] (2010-2030)
Number of inhabitants	-1.4%	+0.6%	-2.4%
GDP	+40.6%	+34.6%	+25.4%
Passenger transport (total) – pkm	+21.3%	+16.1%	+12.2%
Motorised individual transport – pkm	+21.1%	+16.1%	+9.9%
Freight transport	+68.3%	+42.7%	+17.6%

It can be concluded from the table that forecasts which have been used in the development of expert basis for the Strategy are fully comparable to Austrian and German ones. This applies both to the trend regarding the stagnation of the number of inhabitants (minimum increase and decrease), GDP growth (slightly higher growth in economically less developed countries) and transport growth. In Slovenia and Austria, the transport grows slightly more, especially freight transport, since these are transit countries. In addition, the level of mobility of inhabitants in Germany is probably come close to its final level.

[8] Bmvit, VERKEHRSPROGNOSE ÖSTERREICH 2025+, Endbericht, 6 Gesamtverkehr, 2009
[9] BMVI, Verkehrsverflechtungsprognose 2030, Zusammenfassung der Ergebnisse, 2014

The transport unit AADT is a statistical value which never occurs in reality which is why it was never used nor mentioned within the scope of modelling. One of results of modelling and the CETRA model are transport burdens expresses as vehicle/working day, vehicle/hour and route, net tonne/year, and other. These expressions represent transport demand which is one of the main basis for determining the need and forms of traffic routes and other measures. The CETRA model was not only used for determining transport demand but the environmental acceptability (GHG emission, ambient air contaminant emission, noise emission) and social acceptability (accessibility by personal vehicles and public transport, traffic accidents). When determining measured, all aspects were taken into account, not only the transport demand. In addition, the results of the strategic environmental assessment were also taken into account.

The comment referring to the length of the planning period in the model, i.e., that it should be longer due to long-term placing of infrastructure facilities into the environment does not make sense. Just the opposite is necessary, that is, to shorten the procedures for siting infrastructure facilities in the environment. For this purpose, clear policies have been proposed in the Strategy (determined based on realistic needs), together with measures which should be sufficient for the most efficient and faster siting of facilities in the environment.

The freight transport model is based on the trade in goods of European countries, while, in accordance with the terms of reference, the world trade is taken into account in the traffic of the ports of the North of the Adriatic. A world maritime transport model should have been developed for an independent forecast for the ports of the North of the Adriatic, which would significantly exceed the scope of the project and the purpose of the Strategy. The forecasts regarding maritime transport which include the ports of the North of the Adriatic were applied in the preparation of the Strategy. These forecasts were compared to existing studies and hence confirmed as realistic.

The results of the national transport model are multifaceted, giving a greater number of various parameters in terms of numbers, for example, also the number of freight trains per day, calculated from the net tonnes travelled by rail per year. Owing to the factors used for conversion (year/day, average train mass, share of empty trains), this is a result which serves to provide a strategic assessment of the total number of trains on an individual railway line. A more detailed modelling regarding the railway infrastructure and the timetable is done on the level of the project.

Figure 12 in the Strategy shows the relation between goods being transported on the road and on the railway in the territory of Slovenia. The Statistical Office for Road Freight Transport does not have this data which is why the model data was used. In case of the said table, the data provided by SURS (freight transport and traffic, Slovenian, annual data) are not comparable and misleading since as regards railways, they include transport in the territory of Slovenia, while as regards roads, goods being transported by Slovenian vehicles in Slovenia and abroad.

Figure 59 in the Strategy shows the utilization of infrastructure capacity with future cargo flows on the existing network. The purpose of the figure is to present the potential of the railway transport in Slovenia and to warn about sections where the existing capacity will be exceeded and the throughput capacity will have to be increased for the line to assume the potential demand, otherwise the transport will be shifted to roads and other lines outside of Slovenia.

The transport model used is an efficient strategic tool, which, together with the strategic environmental assessment, gives and objective assessment of the necessary future measures and investments at the level of the Republic of Slovenia.

The idea on the breakdown (de-coupling) of the **connection between the GDP growth** and the transport growth is 15 years old, when proposed by the European Commission in 2001 in the White Paper on the Transport Policy. But in 2006, in the Mid-term Review of the White Paper on European Transport Policy, the Commission concluded that such breakdown is not possible due to political issues. In principle, it is considered that a 1% of growth of GDB results in increase in transport by 2%. However, it is also true that slightly lower growth in transport in regard to the GDP is forecasted for the future: by 2013, the GDP is supposed to increase by approximately 4%, passenger transport by 21% and freight transport by 68%.

Some **comments related to the issues which have already been included in the Strategy,** for example:

- in addition to the logistic centres of national significance, regional logistics centres should also be highlighted. This has already been mentioned in measures Ro.34, R.40, M.21 and A.21,
- i.e. that the possibility for organising public transport in rural areas (for example, a bus on call) which is envisaged in the measure U.32;
- this also applies for vehicles on alternative fuels, which have been included in measures Ro.35, A.11 and M.11,
- the requirement to include a new measure (administrative capacity and training) in regard to the railway network is not necessary since the measure Ro.36 have been included in the Strategy (Modernisation of the legislation and guidelines for planning) which envisages the preparation of the guidelines for the repair of the environmental burdens along the railway network,
- the volume of the Strategy's measures for the modernisation of the passenger (Ro.34) and freight rolling stock (Ro.35) is sufficient. Slovenia has been committed to implement these measures also by adopting the Interoperability Guidelines for the national railway network; in accordance with the applicable legislation in regard to the protection against noise pollution along the infrastructure network, the measures must be oriented towards reducing noise emissions at source since these are the most efficient.

The comments also include **requirements which do not belong under the area of transport**, such as, for example,

- that the issue regarding the payment of compensation due to noise should be arranged differently, which cannot be organised by the Strategy itself, since the Strategy cannot affect the area of judiciary and finances;
- that questions on the benefits of constant growth and its actual possibilities should be raised and an analysis regarding future situation including this variable should also be made. The Strategy took into account assumptions dictated by bodies responsible in the areas of finances, statistics, social and economic trends, and similar areas. The transport is not an area which would give a proposal of a new social and economic system. The same applies for the information and communication technologies in relation to the remote work. This is the area of work which falls under the responsibility of another line ministry;
- the analyses which are the result of the transport modelling have been made exclusively for the needs of the Transport Development Strategy. When the need arises for transport model to be used in analyses by other line ministries, it is believed that such tasks will have to be dealt with separately and they are not a subject of this Strategy.
- Not only the measures related to the infrastructure have been envisage for the management of future traffic flows, but the Strategy responds to the expected growth of passenger transport by providing measures for more efficient operation of the railway system and better integration of the public passenger transport with other transport modes (bicycle, P+R, and others).

c) The amendments of the Strategy and ER

On the basis of comments received, the Strategy was amended in some sections.

a) In connection with the **length of the document,** the review was made in search of any duplications which was corrected and certain chapters were made shorter (but some were added or extended in regard to the requirements from the public consultation process). The terminology was amended in accordance with the comments receives. **Grammar mistakes** and other irregularities noticed by the persons submitting comments were corrected.

b) The presentation of the Ministry of Infrastructure **organisation** was shortened in some sections and in some sections amended by adding the presentation of the method of implementing activities in the area of transport; this will be completed in the middle of 2016 when some other analysis will be finished.

c) The indicators for monitoring the objectives and measures referred to in the Strategy were amended. These indicators were set in cooperation with representatives of Jaspers Agency.

d) The Chapter on Maintenance of Railway and Road Infrastructure was supplemented.

e) In regard to t**he railways**,

- the text in the Strategy was amended, which now reads that the entire TEN-T network, which includes the Ljubljana - Jesenice railway line, must be capable of speeds of up to 160 km/hour for the passenger transport and up to 100 km/hour for freight transport, taking into account all the possible deviations (economics, relief, physical space, the environment), in accordance with technical standards for interoperability in regard to the functionality of lines. the length of the train of 740 metres will only be observed in the core TEN-T network;
- the modernisation of the marshalling yard stations Ljubljana-Zalog and Tivolski lok was included in the measure R.4 - Ljubljana railway hub, while the bypass line for the freight transport has already been included in the Strategy;
- the Ljubljana passenger railway station was included in the measure R.4 - Ljubljana railway hub, and U.14 - development of stations;
- the Kočevje railway line is now dealt with under the measures U.3 on the Ljubjana-Kočevje route (not only to Grosuplje);
- the measure R.3 – Ljubljana – Jesenice – AT was amended with measures aiming at the safety and capacity of the Karavanke railway tunnel;
- the measure R.11 – Postojna–Ilirska Bistrica–Šapjane (CRO) was supplemented with measures related to the increase in the level of services rendered, especially by rising the speed and the frequency for the passenger transport and the relevant transport throughput and transport capacity for the freight transport;
- the measure R.23 – in regard to the reconstruction and improvements of other lines, the connections to the neighbouring countries which have not been included in the TEN-T network have been mentioned;
- the measures R.39 and Ro.33 (roads) were supplemented by including the explicit requirement for the production of operational programmes for noise for all areas, as required by the Directive 2002/49/EC relating to the assessment and management of environmental noise.

f) In regard to **roads**:

- the connection Bovec-Predel and the improvement of the Vršič Pass's trafficability for the major part of the year (by means of organisational and investment measures) were included in the measure Ro.7 – the connection of Bovec, Tolmin and Cerkno with Ljubljana;
- the improvement of the trafficability of Gorjanci in the winter season (mostly by means of organisational measures) was included in the measure Ro.4;
- within the scope of the measure Ro.13 – Gorenjska, Ljubljana, Štajerska, the possibility for tangential connections, such as, for example, Želodnik – Vodice, Stanežiče - Šentjakob, Trzin – Študa with motorway access road was highlighted;
- the measure Ro.12 was supplemented by adding additional connections, equipment and motorway access roads;
- the connection Dramlje - Šentjur was mentioned as a case under the measure Ro.22 – the connection of Kozjansko, Rogaška Slatina and the rear area to the central transport network;
- the connection Jagodje - Lucija was mentioned under the amended measure Ro.17 – conurbation Koper, Izola, Piran and Lucija;
- bypass roads which have not been especially mentioned among measures in the Strategy such as, for example, Murska Sobota bypass, were added to the amended measure Ro.31 – improvement of the accessibility or regions where the programme will be added for the construction of bypass roads owing to issues with the throughput capacities, excessive burdening of the environment and road traffic safety;
- the measure Ro.22 was supplemented by adding Bizeljsko.

g) In regard to **inland waterways**:

- the measure including basis for the establishment of waterway transport on the Sava River from Brežice to Croatian border (towards Zagreb) was added, and
- measures in regard to the safety of navigation on rivers and lakes in Slovenia (for example, Ljubljanica river).

h) The area of **cable ways** was included in the relevant measure in the field of public transport.

i) The standpoints in regard to the **Environmental Report** have been mentioned in the previous sub-chapter.

d) The transboundary impact assessment

In June 2015, the comments by the Republic of Croatia and the Republic of Italy were submitted within the scope of the transboundary assessment, while the Republic of Austria and Hungary did not have any comments about the Strategy.

The Republic of Croatia had the following comments:

- the corridor Xa (Graz – Maribor – Zagreb) has not been drawn correctly in the Strategy, of which the authors of the Strategy disagree since the Slovenian side always understood that this corridor runs through Zidani Most. This is also written in the Footnote in regard to this corridor written in the Helsinki Declaration. The same applies for the route of the core European connection within the applicable TEN-T Regulation ((1315/2013) which, when crossing Slovenia, runs through Zidani Most, and there is no basis for any other route;
- that it should be stated that the motorway section from Ptuj to Gruškovje is finished by 2020; no reference to the year of completing individual sections was made in the Strategy, which is why it will

not be stated in regard to this connection. This connection will surely be completed by 2020, since its construction will start this year;

- the correction of the wording in regard to the entry of Croatia into the EU in the sense that Croatia is already a member of the EU. The document started to be produced prior to the entry of Croatia into the EU, and then such wording was suitable; it was adequately corrected in the final text;
- in regard to the access of the Slovenian motorway network to the Istrian Y (which is a wish of the Croatia), it has to be pointed out that this has been envisaged by the Transport Development Strategy of the Republic of Slovenia;

After the introductory remarks, the Italian Ministry of the Environment, Spatial Planning and Sea, mentioned that comments in regard to the Strategy were submitted by:

- the Autonomous Region of Friuli Venezia Giulia,
- the Central Road and Energy Agency of the Autonomous Region of Friuli Venezia Giulia,
- the regional Enviornemnt Protection Agency of the Autonomous Region of Friuli Venezia Giulia,
- the Central Agency for Infrastructure, Mobility, Spatial Planning, Public Works and University of the Autonomous Region of Friuli Venezia Giulia,
- the Presidency the Autonomous Region of Friuli Venezia Giulia,
- Goriza Logistic Consortium of employees in transport.

Afterwards, the Italian ministry had summoned the comments submitted by the Autonomous Region of Friuli Venezia Giulia, which is why the Ministry of the Infrastructure of the Republic of Slovenia took a stand only in regard to the combined comments of Italy and their requirements, specifically:

- in regard to the requirement for examining the capacities of the road and railway infrastructure in connection with the increasing volume of traffic recorded in the Port of Koper in connection with the Italian motorway network, the future use of the motorway and railway infrastructure (therefore, also in regard to the transhipment in the port of Koper) is defined thoroughly in the chapter on the national transport model of the Strategy. It must be emphasized that the transhipment growth in the port of Koper will not have a significant impact to the use of the Italian motorway network since in addition to Slovenia; the main markets for the Slovenian single port are the countries of the central Europe (i.e., Austria, Hungary, and Slovakia).
- These are the port's target markets. Only 6% of all goods from Koper go to Italy, and in this case, this is usually coal which is transhipped in the port of Koper to ships, continuing its way to Italy by sea. No significant impact on the motorway network of Italy due to the increase in the transhipment volume in the port of Koper is thus expected;
- in regard to the information in connection with the second railway line on Koper-Divača route (measure R.1), Italy received all pieces of information within the scope of the transboundary environmental impact assessment carried out for this project and Slovenia does not have any additional information on its disposal;
- in regard to the Adria A Project, it is about the project of the passenger connection between the Slovenian and Italian littoral regions and cities in a form of light railway (tramway) and not for a freight railway connection. Such projects have been included in the measure R.23 of the Strategy - reconstruction and improvements made to other lines in which it is envisaged that the need for reconstruction and improvement of lines which have not been included within specific measures will be established by means of studies regarding individual sections, taking into account the concept of operation and the economic and environmental aspect. These are regional lines and lines which run to the neighbouring countries which have not been included in the TEN-T network. The said lines count not been mentioned in more accurate terms since the study in that regard has not been carried out yet and the final results are not available;

- Slovenia fully agrees with the statement made by Italy that "in relation to the measure R.6 Divača-Sežana, the need for expanding this segment must be taken into account, specifically, in terms of an integral part of the cross-border axis between Trieste and Divača, which is at the same time the eastern ring of the Mediterranean Corridor within the scope of the TEN-T network", and the project has been designed in this direction. The intra-governmental Italian and Slovenian Commission has been established for that purpose, monitoring the extension of this axis, as well as the EEIG which is supposed to implement the project on this axis. Unfortunately, a diminishing enthusiasm for constructing this connection has been noticed lately on the Italian side;
- the measures from R.21 – R.24 relate to the ETCS transport management system, the electrification, the improvement works and the maintenance of lines and railway transport safety, In this regard it is believed that only the introduction of ETCS can be discussed in regard to the interoperability, and only conditionally on electrification. In regard to the latter, the entire TEN-T railway network in Slovenia will be electrified by the end of the year, specifically, at the same voltage as in Italy (except for high speed lines): As regards ETCS, the ERTMS level 1 and GSM-R will be implemented by Slovenia on the D corridor (from the border with Italy to the border with Hungary). In case of a potential improvement of the ERTMS system to the level 2 or "regional" level, a consultation will be held involving the neighbouring countries, if not otherwise, for sure within the scope of the European horizontal project for the ERTMS implementation managed by the European coordinator, Karel Vinck;
- in regard to the Trieste Port, it was stated in the chapter on the analysis of the situation, that this port is mostly oriented into the transhipment of liquefied goods which travel further on by pipelines and that currently other goods are transhipped by this port only to a smaller extent. When planning future traffic flows the plans of the Trieste port to increase the transhipment of other types of goods (particularly ro-ro cargo and container) have also been taken into account. That is why the project regarding the cross-border railway connection between Trieste and Divača seems essential to provide for the sustainable transport mode for the cargo potentially coming from the Trieste port and travelling to the East or North East (in addition to the fact, that this connection is essential for the Mediterranean and Baltic - Adriatic Corridor);
- in regard to the Ljubljana airport, the authors of the Strategy are convinced that the estimated growth of the passenger (and cargo) transport will not have a significant impact on the use of the Italian transport infrastructure. This airport has a very good motorway connection as it is connected within the TEN-T network, and no railway connection with this airport is currently envisaged. This option would be examined if, in the future, the number of passengers at the Ljubljana Airport would increase to more than 4 million passengers/year;
- Italy has also proposed that "the supervision system must be implemented by means of which a direct connection between the results indicators, the context, the process and objectives will be envisaged in connection with impacts on the environment. The supervision system has been defined in the Strategy but within the scope of different chapters and individual measures in the field of monitoring the environmental protection have been determined in this regard, together with the implementation of the information systems. In spite of this, it was decided that in relation to the field of supervision, monitoring and amendments to the Strategy, this field of work will be shortly presented in a special chapter in the final Strategy Proposal. This chapter will be included in the monitoring of the situation by indicators resulting from the transport model and in the monitoring of the situation by indicators proposed in the Environmental Report. The indicators for monitoring the situation referred to in the Environmental Report will be supplemented with the sea water indicator. The authors of the Strategy have thanked Italy for the proposal given;
- The Strategy currently includes only those specific measures which are important at the national level and which were justified also by means of the transport model (at the general level). More

detailed analysis and studies will have to be developed for the preparation of actual projects, as is also stated in the Strategy. If these are cross-border projects, then the cooperation of the neighbouring countries is envisaged.

- The railway hub between Italy and Slovenia located in the municipalities of Šempeter Vrtojba - Gorizia has not been mentioned in Strategy's measure since the Strategy only includes hubs on the TEN-T network. In Slovenia, these are Koper, Ljubljana and Maribor. Slovenia is aware of the importance of sustainable mobility which includes the railway transport and this is the core policy of the Strategy. That is why the measure "Development of Network into Intermodal Hubs and Agglomeration" has been added to all transport modes (including the railway transport mode); in regard to the railways, the following has been stated: " /.../ in Slovenia the transhipment of cargo and the shift passenger from one transport mode to another transport mode is provided for on a larger scale. This would enable an efficient combination of various transport modes in the transport chain, thus increasing the efficiently of transport. The potential points for the shift of passengers and goods from one transport mode to another transport mode must be identified in the future. Where it would be proven necessary and efficient, the intermodal passenger platforms should be designed to increase the use of public passenger transport and provide for a suitable connection of logistic cargo terminals with various transport modes, where such interest has been expressed by the economy." The railway hub of the municipalities' Šempeter Vrtojba - Gorizia is certainly included in this measure. For the purpose of its significance, the above mentioned text will be supplemented with the statement that this applies in areas where environmental issues are being solved in such manner.

IV. The monitoring of the implementation of the Traffic Development Strategy of the Republic of Slovenia in connection with the impacts on the environment:

Environmental impact:

The indicators for monitoring the impact of the Strategy on the environment have been proposed on the basis of results of the environmental assessment. The indicators which are measurable and in regard to which the monitoring of their status has already been established in Slovenia have been defined as a priority. These are indicators the results of which are being systematically collected, processed and reported about at the national level. When selecting the indicators for monitoring the situation, those indicators were chosen which are used for monitoring the state of the environment within the scope of the EIONET network which was established for the purpose of the Slovenia's reporting obligations to the European Environment Agency. In a case that a certain indicator has already been monitored, its official serial number has been written next to the indicator.

Additionally, indicators were also searched for among the data collected by individual organisations and institutions, for example, the Hunters Association of Slovenia, the Ministry of the Interior, the Ministry of Culture, and other institutions). These indicators do not have any serial number.

The monitoring of the status of some environmental objectives is not necessary since the objective will be achieved by taking into account the policies and mitigation measures.

The environmental indicators have been verified by the body responsible for the Strategy preparation (Ministry of Infrastructure) for 5 years.

The table below presents the connection between the selected environmental objectives and the proposed indicators for monitoring the status.

Environmental objective	The proposed environmental indicators
Environmental objective No. 1: To provide for sustainable land management and soil conservation	Land cover and land use [TP01]
Environmental objective No. 3: To provide for the attainment of the long-term goals for the annual quantities of the air contaminants which, as regards the transport, have been determined in the Operational Programme relating to the attaining of the upper thresholds in regard to the emissions of the ambient air contaminants	Emissions of gases causing acidification [ZR09] Emissions of particles into the air [ZR15] Emissions of ozone precursors [ZR10]
Environmental objective No. 4: To adapt the transport infrastructure to the climate change and to reduce the annual quantities of the GHG emissions under the target values which, in regard to the transport, have been determined in the Operational Programme of measures for reducing the GHG emissions by 2020-	GHG emissions [PS03]
Environmental objective No. 5: To limit the effects of the pressure caused by the transport infrastructure to the surface water, groundwater, transitional water, coastal water and sources of potable water	A potential water hazard on the occasion of accidents during the transport of hazardous substances
Environmental objective No. 5: To limit the effects of the pressure caused by the transport infrastructure to the surface water, groundwater, transitional water, coastal water and sources of potable water	Chemical and ecological state of the sea [MO06]
Environmental objective No. 6: To provide for the connection of population and preserving biodiversity	Running over wildlife
Environmental objective No. 7: To protect areas with the nature protection status against the developments with significant effects on the environment.	Fragmentation of habitats [SEBI013]
Environmental objective No. 9: To reduce the environmental burden caused by noise due to traffic and to come closer to the levels recommended by the World Health Organisation	Noise exposure due to transport [PR18]
Environmental objective No. 10: to improve social cohesion, traffic safety and sustainable mobility	Investment into transport infrastructure [PR03] The volume and composition of the passenger transport and traffic [PR01] The number of traffic accidents, and the number of victims injured in the road transport and railway transport [PR10]

Soil and minerals

Land cover and land use [TP01]

The indicator shows the characteristics and the development of land cover and land use collected according to the CORINE Land Cover methodology in 1996, 2009 and 2006. The indicator is prepared for every 4 to 6 years. The data bases are available at the Surveying and Mapping Authority of the Republic of Slovenia. The description of the indicator findings for 2008 is available and the data for 2012 are being prepared. The Ministry of Infrastructure verifies the data on the status of the indicator every five years.

Air

Emission of gases causing acidification [ZR09], Emissions of particles into air [ZR15] and Emissions of ozone precursors [ZR10]

The data base relating to the national monitoring on the quality of the ambient air is used to monitor the status. It is provided by the Slovenian Environment Agency. The data are collected in accordance with the annual programmes for monitoring the status of the ambient air quality (the supervisory and the operational monitoring), and the assessment in regard to the excessive pollution of the ambient air is made after the completion of each calendar year. The Ministry of Infrastructure verifies the data on the status of the indicator with the Slovenian Environment Agency. The data on the status of the indicator are verified every five years and they are connected with the Strategy's measures that have been implemented.

Climate factors

GHG emissions [PS03]

The original data base and the source for forming the indicator is the GHG Emission Register, TGP Archives and the Slovenian Environment Agency. The custodian of these data is the Slovenian Environment Agency. The data on the GHG emissions have been presented for the 1986-2011 period. They are updated once a year. The recent data refer to the period of two years ago and are available in April of the following year. The Ministry of Infrastructure verifies the data the Slovenian Environment Agency every five years.

Water

A potential water hazard on the occasion of accidents during the transport of hazardous substances

The analysis regarding any potential hazards related to water was made within the scope of Water Management Plan 2009 - 2015- The indicator is updated with the amendments to the Water Management Plan (usually, every five years). The Ministry of Infrastructure verifies the data regarding the status of the indicator with the ministry responsible for the environment.

Chemical and ecological state of the sea [MO06]

In accordance with the Water Directive and national regulation, i.e., Decree on surface water status (Official Gazette RS, Nos. 10/09, 20/0914/09, 89/10 and 96/13O and Rules on monitoring surface waters status (Official Gazette RS, Nos. 10/09), the quality of the sea is determined in terms of the chemical and ecological state of the sea. The Slovenian Environment Agency collects the data on the annual basis and on the basis of the programme for monitoring the status of waters.

In 2016, in accordance with the Marine Directive the implementation of the Marine Environment Management Plan will be initiated; an integral plan of this plan is the definition of the monitoring of the status of the marine environment. In accordance with the Marine Environment Management Plan, the associated legal bases will be adapted, including the Decree on surface water status which will be supplemented with the content related to the monitoring of the status of the marine environment. The data on the status of the marine environment will be monitored and collected by the responsible institution for monitoring the status of

the marine environment (currently the Slovenian Environment Agency). After the establishment of the monitoring of the status of the marine environment, the Ministry of Infrastructure most obtain data from the the responsible institution for monitoring the status of the marine environment (in accordance with the provision of the Marine Directive) The Ministry of Infrastructure verifies the data on the status of the indicator every five years.

Nature

Running over wildlife

The record of the number of cases of running over the wildlife is kept and managed by the Slovenian Forest Service. The Ministry of Infrastructure verifies the data on the status of the indicator every five years.

Fragmentation of habitats [SEBI013]

The status of the indicator is monitored by the European Environment Agency. The indicator is based on changed to Corine land cover. The Ministry of Infrastructure verifies the data on the status of the indicator every five years.

Human health

Noise exposure due to transport [PR18]

The indicator shows the noise exposure of people living next to important roads and railway lines and, separately, the exposure in the areas of settlement zones (Ljubljana and Maribor) resulting from noise caused by the road and railway transport and significant industrial facilities and installations. The entities liable to prepare the data on the noise exposure are the managers of individual sources of noise (the railway network– DARS d.d., the national road network – DRSC and the railway network – the Ministry of Infrastructure) and both settlement zones (Ljubljana City Municipality and Maribor City Municipality). The Ministry of Infrastructure verifies the data on the status of the indicator every five years.

Inhabitants and material goods

Transport infrastructure investments [PR03] (this indicator is marked as TERM 019 by EEA)

The data on the amount of motorway network investments has been published by the Motorway Company of the Republic of Slovenia in its annual reports since 1994. The data on the amount of national roads network investments and the railway, water and aviation infrastructure is published annually by the Ministry of Finance in the Annual Financial Statement of the Budget of the Republic of Slovenia. The Ministry of Infrastructure verifies the data on the status of the indicator every five years. Having regard to the data, it is determined whether any changes to the amount of investments into various types of transport infrastructure have occurred.

The volume and composition of the passenger transport and traffic [PR01]

The data on the volume and composition of the passenger transport and traffic in Slovenia are collected by SURS and they are published in the regular annual serial publication Statistical Yearbook and in the SI-STAT data portal. The Ministry of Infrastructure verifies the data on the status of the indicator every five years. Having regard to the data, it is determined whether any changes to the volume and composition of the public passenger transport have occurred.

The number of traffic accidents, and the number of victims injured in the road transport and railway transport [PR10]

The data on the road traffic accidents are reported by the Ministry of the Interior to the Statistical Office. The data are updated on the annual basis. The Ministry of Infrastructure verifies the data on the status of the

indicator every five years. Having regard to the data, it is determined whether any changes to number of traffic accidents, and the number of victims injured in the road transport and railway transport have occurred.

Transport model

The transport model has been described in the previous chapters of this document. The measure Ro.32 "Transport Model" has been determined for its operation in the future; it is stated in the measure that the transport management is an important segment of the transport system. The collection and processing of transport data is the basis for supplementing the transport data base. The traffic count is carried out by using various methods whereby the access to data on suitable platforms, which are publicly accessible, must be provided for. The functions regarding traffic supervision and management represent the bases for enabling an optimum traffic flow capacity. Efficient systems enable management to be carried out in a manner which ensures as little traffic jams occurring during the normal progress of traffic and during extraordinary traffic events. The national transport model was developed within the scope of a wider preparation of documents relating to the transport system development in the Republic of Slovenia. The model must be maintained and updated by including new research studies (for example, surveys including households, other research) and ensure that the model is constantly updated.