

**PLAN OF INVESTMENTS INTO THE IMPLEMENTATION OF THE NATIONAL
CYCLING NETWORK OF REPUBLIC OF SLOVENIA**

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ABSTRACT

The past investments into the cycling infrastructure in Slovenia did not follow the needs and demands of the appropriate development and road safety. To set up and shape an attractive and efficient bicycle network, a careful planning and systematic approach is needed. In terms of the circumstances in Slovenia, its level of social development, and in regard to its strategic and geographic position, where east-west and north-south routes cross, it is both appropriate and necessary to design and develop a network of cycling routes. This is also being done for reasons associated with traffic volumes, tourism, economy, culture and conservation. A national cycling network that encompasses about 2700 km of cycling routes is planned to be constructed in the next 25 years. In accordance with the Public Roads Act the cycling infrastructure in the city is co-financed by each community. The Slovenian experience in this field is relatively insignificant as it has been put aside for a long time and did not receive any special attention. The cycling connection network must assure safe, healthy and comfortable use of bicycles for meeting all the daily needs of work and living, recreational and sport needs, access to the most important tourist places and natural sights places in Slovenia and farther afield. It has to be designed in a way that it assures comfort and safety for cyclists and does not affect the environment. Individual areas should be reduced of motor vehicles traffic and possibilities for relaxation and recreation should be made available for inhabitants.

PLAN OF INVESTMENTS INTO THE IMPLEMENTATION OF THE NATIONAL CYCLING NETWORK OF THE REPUBLIC OF SLOVENIA

To set up and shape an attractive and efficient bicycle network, careful planning and a systematic approach is needed. To criss-cross the entire country with cycling connections, it requires long-term planning and a well co-ordinated team, working on the project hard and persistently. It is obvious that the past investments into the cycling infrastructure in Slovenia did not follow the needs and requirements of an appropriate development and road safety. Investments into the implementation of the National Cycling Network must be carefully defined in a Master Plan.

Considering the political situation of Slovenia, as a EU-member, its level of cultural and social development, as well as its strategic and geographic position, characterised by the crossing of east-west and north-south routes, it is appropriate and necessary to design and develop a network of cycling routes. It must ensure suitable connections to the cycling networks in neighbouring countries, i.e. in Austria, Italy, Hungary and Croatia, as well as connections to the European Cycling Network from the view of traffic volumes, tourism, culture and care for environment. That is why the public attitude towards cycling has been changing to the benefit of cycling in the last few years.

The bicycle enables sustainable and environment-friendly, simple mobility. It has a number of advantages over other means of transport. It does not represent any major financial burden for the owner, it contributes to energy saving, it is simple and not expensive to maintain. By bicycle one can travel farther than on foot; it efficiently replaces the use of the car on shorter distances, especially around in the neighbourhood or built-up areas. It allows more freedom in using leisure time and a more intensive and healthier experience of the environment. Its advantages over other means of transport include also reduced air and noise pollution from traffic congestion, especially in city centres.

Recently, more and more people are taking up recreational cycling in clean, friendly environments outside big towns, in order to go touring, engage in sport or improve their health. Cycling has a positive influence both on physical and mental health and well being, as well as on intellectual capabilities. It results in vitality and relaxation and undoubtedly deserves a more important role in our everyday life. There are large numbers of cyclists of all ages and from all walks of life.

The Slovenian government has decided in the last few years to invest more into the implementation of the National Cycling Network. The Directorate of the Republic of Slovenia for Roads is responsible to design and implement it. Besides, both the national strategy and transport policy are also stimulating the development of non-motorised traffic, cycling infrastructure and use of bicycles everywhere where this is possible and reasonable.

The construction, management and maintenance of national cycling connections have been carried out in accordance with the provisions of the Public Roads Act. The required funds for the construction and maintenance of the national cycling network should be provided in the framework of the State Budget share intended for the management, maintenance and protection of the Slovenian national roads.

In cycling-developed countries, up to 3% of the total transport budget is earmarked for the construction and development of cycling infrastructure, and about 5% of the funds invested are allocated annually for cycling infrastructure maintenance.

Due to the limited funds earmarked by the Slovenian National Assembly for the State Budget Share allocated to the National Road Sector, the investments into the construction of the national cycling network shall not exceed the realistic capacities within the limits of the rest of investment obligations, to be fulfilled by the Directorate of the Republic of Slovenia for Roads in line with the legal requirements. In the past years the Directorate has carried out a research with the purpose to establish the growth dynamics of the national cycling network per envisaged priorities for the needs of efficient planning of the budget resources for the implementation of the national cycling network.

The planning of the priority tasks connected to the implementation of the envisaged national cycling network shall be based on objective criteria concerning transport safety as well as technical, economic and environment-protection factors.

The construction of priority cycling connections depends on directly and indirectly decisive criteria.

The directly decisive criteria for the construction of the priority cycling links are:

- Category of the cycling connection (long-range, main and regional)
- Links to the European cycling network
- Links to existing cycling infrastructure
- Counting of cyclists
- Data on relative attractiveness of a cycling connection (survey)
- Road safety (number of accidents, AADT)
- Financial structure of investment
- Bridging and linking of existing local cycling network
- Links to tourist spots (baths, sport centres, camping grounds)
- Natural and cultural sights

The indirectly decisive criteria are:

- National interest and political decisions
- Financing and co-financing by other sources (municipalities, other Ministries, tourist sector...)
- Financing and co-financing by the EU instruments (PHARE-CBC, Interreg ...)
- Changes of priority due to technical reasons
- Changes of priority due to land reasons
- Psychological reasons
- Reducing traffic on existing roads through rerouting motor vehicles to other roads, which results in low-traffic volumes of those roads, which thus become convenient also for cycling (construction of new motorways).

In establishing the dynamics of the investments into the national cycling network, the following prerequisites shall be taken into account:

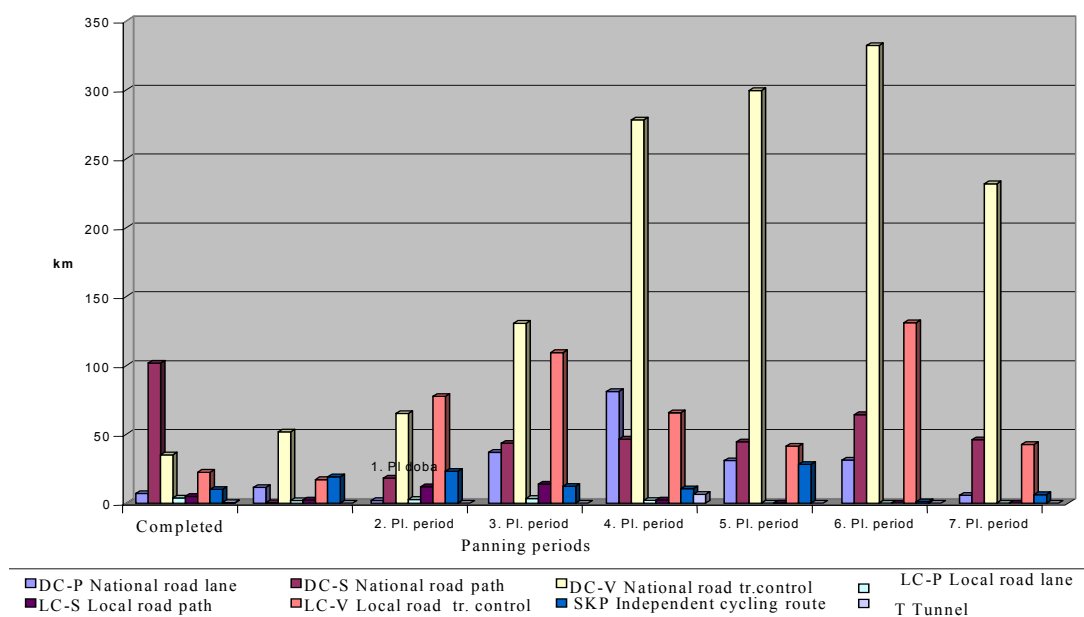
- The entire network, encompassing ca 2700 km of national cycling connections, is envisaged to be completed in the next 25 years;
- The construction will be carried out in phases, the entire planning period is to be divided into particular short-term, medium-term and long-term stages,
- The investments are envisaged to be distributed proportionately per particular planning periods;
- Taking into account the financial and spatial capacities and the available road infrastructure, it would be reasonable to use as many appropriate existing low-AADT roads as possible, which would naturally need some restructuring or traffic signalling equipment required for safe development of cycle traffic along them;
- The construction of new separate independent cycle routes is envisaged only in the areas, where no other alternative exists;

- Within the network, max 20 % of the cycling connections will be built in the form of new separate independent cycling routes;
- The construction of new cycling tracks and cycling lanes is envisaged predominantly in settlements and in the areas, where this is necessary from the view of traffic safety.

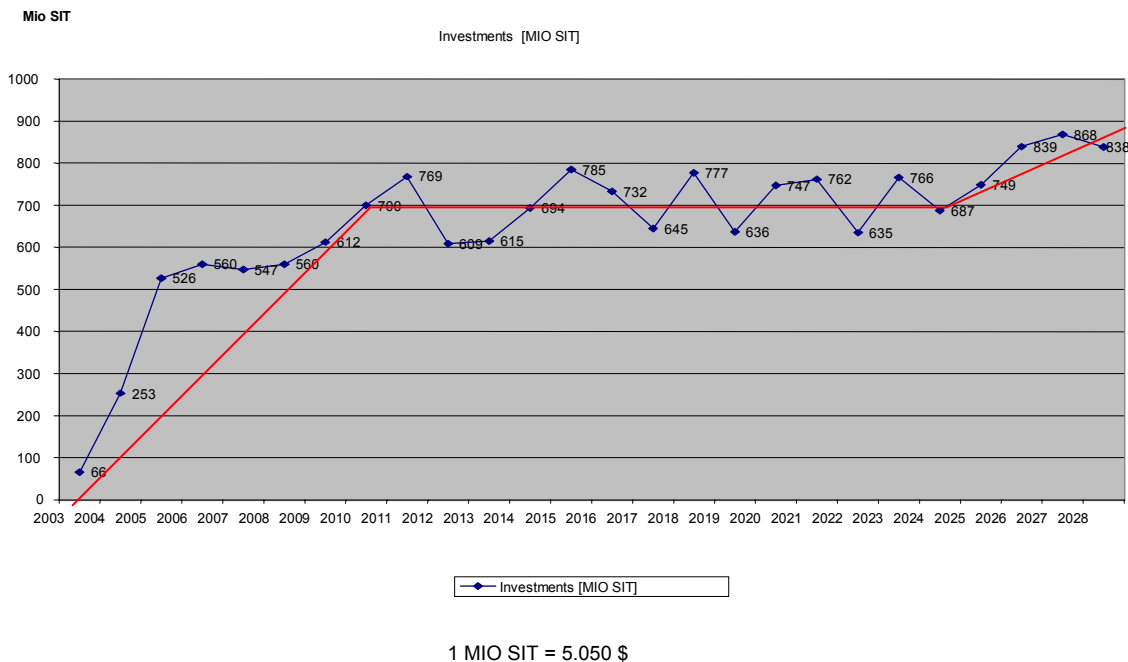
In the procedure of the analysis of the investment dynamics, it was necessary:

- to divide the envisaged national cycling network into particular sections,
- to envisage the type of the implementation for each particular section,
- to estimate the average costs for each type and for each particular section.

With regard to the above states facts, the research finds that an optimum amount resulting from the calculation of the dynamics necessary for the investments into the construction of the national cycling network in Slovenia, is on average a little less than 1% of the total investments into the transport sector, i.e. less than 1.5 % of the national investments into road infrastructure. Taking into consideration the calculation results, the investment time schedules could be implemented as shown in the below two graphs:



Graph: A graphic presentation of the envisaged growth of the national cycling network implementation per particular implementation type alternatives per km



Graph: The dynamics of the required plan of financial investments into the construction of the national cycling network as proposed in the research

The construction of investment-demanding traffic cyclist areas outside settlements needs to be justified by means of an investment programme, on the basis of which adequate project documentation should be prepared. In Slovenia, the construction of the traffic cyclist areas outside settlements is financed entirely by the Directorate of the Republic of Slovenia for Roads, in so far as the construction corresponds to the spatial concept of the national cycling network in the Ordinance Amending Spatial Aspects of the Long-term and Medium-term Social Plans of the Republic of Slovenia. Local cycling connections outside settlements should be financed entirely by municipalities.

If a national cycling connection runs along a municipality or a non-categorised road, the State, in prior agreement with the relevant municipality, finances the erection of traffic signalling for the purpose of cyclist traffic control, as well as the costs of minimum construction measures ensuing from the project documentation, which shall have a prior approval by the Directorate of the Republic of Slovenia.

In the event, when a municipality or some other investor wishes to build a cycling connection section and it expresses its willingness to provide the funds or part of the funds for the construction, this section, considering the indirect criteria, may obtain higher priority than that calculated according to the basic methodology.

Regarding to the Public Roads Act such sections should be co-financed by each relevant municipality, which shall include such construction into the cycling infrastructure of its spatial plans in line with the National Spatial Plan.

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