



Cyclurban



A lessons-learned report

IMPRINT

Authors: Damian Arikas & Clara Sonne Krogmann, Baltic Environmental Forum Germany

Country Illustrations and Cover: Eva-Maria Birkhoff

Layout: Matthias Grätz & Elionor Ferrer, Baltic Environmental Forum Germany

© Baltic Environmental Forum Germany, Hamburg, 2020

Supported by:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety



European
Climate Initiative
EUKI

based on a decision of the German Bundestag

The project Cyclurban was part-financed by the European Climate Initiative (EUKI). The European Climate Initiative is a project financing instrument by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU). Its implementation is supported by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. It is the overarching goal of the EUKI to foster climate cooperation within the European Union (EU) in order to mitigate greenhouse gas emissions.

The opinions put forward in this publication are the sole responsibility of the author and do not necessarily reflect the views of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

Picture Credits: Page 4: Alfredo Garces (unsplash), Page 5: Cyclurban Project, Page 6: Cyclurban Project, Public Road Authority Warsaw, Public Road Authority Warsaw, Page 15: Daša Barteková, Cyclurban Project, Page 17: Cyclurban Project, Page 19: Ola Wojtynska, Page 21: Anatoly Anikin (unsplash), Page 23: Raimond Tamm, Page 24: Jaanus Tamm, Page 25: Jaanus Tamm, Ove Maidla, Page 29: Luis Efigenio (unsplash), Page 31: Oto Ozols, Page 32: Edgars Dundurs, Page 33: Gudrais Pilsētnieks, Toms Alsbergs, Page 34: Marta Garā, Page 35: Alda Ozola, Page 39: Michał Brennek, Page 40: Public Road Authority Warsaw, Page 41: Mikolaj Gierych, Page 41: Zbyszek, Page 45: Jakub Kuruc, Page 46: Tatiana Kratochvílová, Daša Barteková, Page 47: Daša Barteková, Page 48: Ján Roháč, Page 51: Dajana Martin, Page 52: DOOR, Page 53: DOOR, Page 54: Lidija Mišćin, Page 57: Ekaterini Iosifidou, Page 58: NTUA, Page 59: NTUA, Sustainable Mobility Unit, Page 59: Michael Tassou

Contents

Introducing the Cyclurban project - 5

Developing local cycling strategies for six cities - 12

National Cycling Policy Analysis and National Policy Recommendations - 14

Route choice survey - 18

Welcome to Tartu! - 22

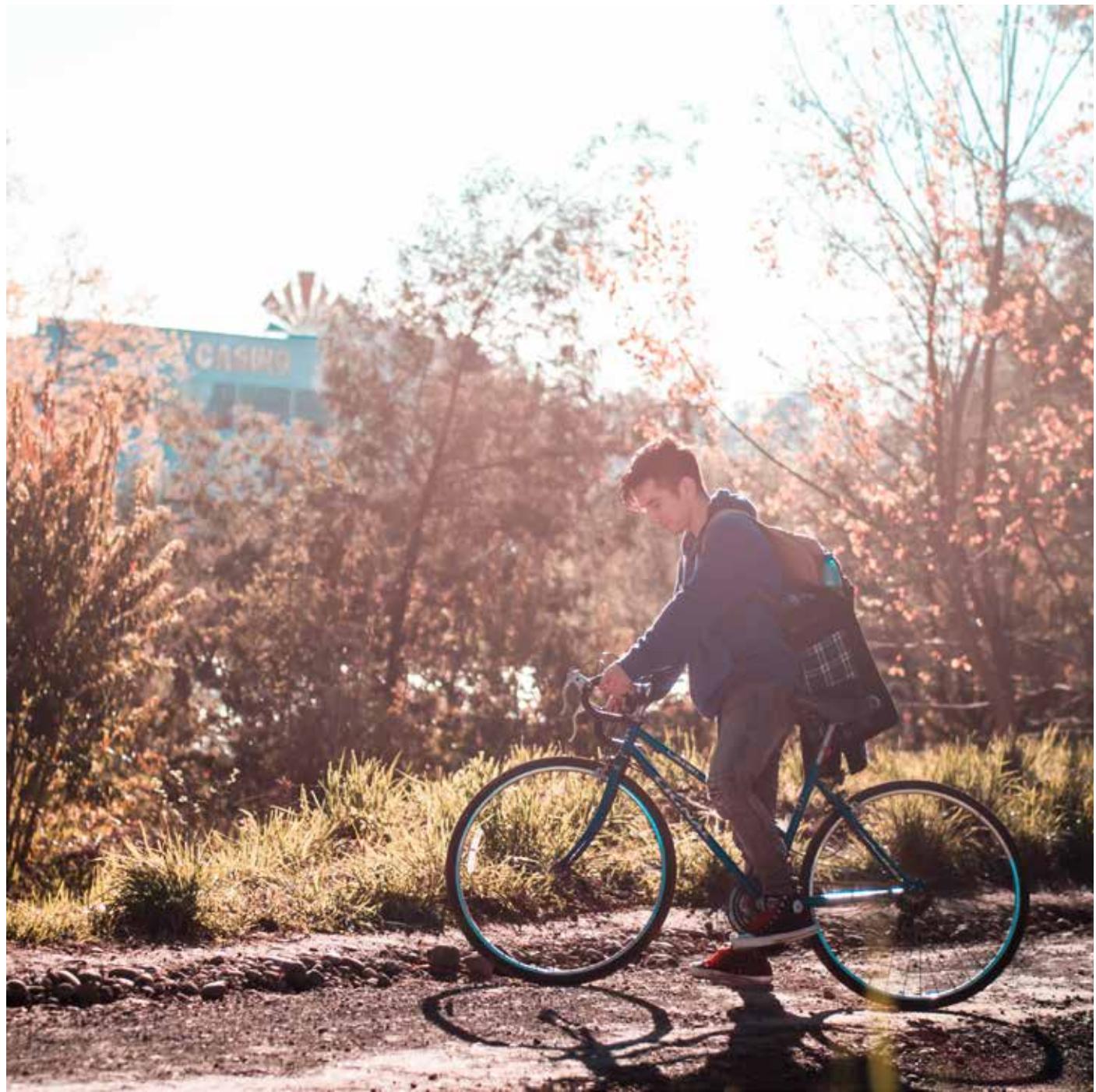
Hello Riga! - 30

Dzień dobry, Warsaw! - 38

Greetings from Bratislava! - 44

Hello from Velika Gorica! - 50

Kalimera, Drama! - 56



INTRODUCING THE CYCLURBAN PROJECT

About one-quarter of Europe's greenhouse gases are emitted by the transport sector, within which road transport is by far the biggest contributor to emissions. Funded by the European Climate Initiative (EUKI), the Cyclurban Project promotes cycling as an important element of urban climate change mitigation policy.

15 organizations from Germany, Croatia, Estonia, Greece, Latvia, Poland and Slovakia, worked together in the Cyclurban project to promote cycling as an important means of urban transport. The project partners, NGO's, scientific organizations and municipalities, contributed with their specific expertise on climate change, sustainable urban development and urban transport.

Targeted by the project's activities were municipal, regional and national administrations in the 6 partner target countries in the Baltics, Central and Southern Europe. Especially the mobility and urban planning departments of the project cities Warsaw, Tartu, Velika Gorica, Bratislava, Riga and Drama were addressed as well as other regional or national institutions and stakeholders that shape the debates and the policies which influence future urban mobility.

During many workshops and stakeholder meetings organized in the project, a thorough analysis of the current state of cycling and the opportunities and challenges it holds was done. In these meetings, the project partners, spatial and transport planners, architects, cycling activists, municipal experts and other stakeholders were brought together to exchanged knowledge on cycling and sustainable transport and discuss strategies and good practice examples that support a climate-friendly mobility change.

The lessons-learned within the Cyclurban project were addressed to decision-makers as a set of tailored National Policy Recommendations (NPR's). They were developed together with experts and stakeholders in national workshops and represent relatively low-cost and low-barrier ways to support cycling in the respective countries. The recommendations include measures within the fields of infrastructure, policy and planning, as well as education, services and promotion. They can be used as a blueprint by policymakers and help them to implement a more climate-friendly transport policy and positively shape cycling policies in the upcoming years. All NPR's were acknowledged by national authorities in the 6 partner countries.

In this publication, you find information about the activities of the project in each partner country, the role that cycling has in the local transport system and the obstacles that prevent cycling from being a more favourable means of transport within the municipalities. Also, the National Policy Recommendations developed by the project partners can be studied and taken as blueprints for cycling enhancement with specific reference to the cycling situation in each of the project countries. Additionally, success stories, good practice examples and experiences made by the different municipalities and project partners from Cyclurban's very different implementing countries are represented.



Who are the Cyclurban partners?

The Cyclurban project was realized by a diverse team of fifteen partners from seven different countries. Our partners are NGO's, scientific organizations and municipalities with expertise and experience concerning sustainable mobility and cycling.





CITY
OF WARSAW

City of Warsaw

The capital of Poland is the home to approximately 1.8 million inhabitants and has a Road Authority that is experienced when it comes to sustainable mobility. In 2012 the municipality has established and managed a successful bicycle sharing system and since 2010 an extensive quality improvement and extension of the city's cycling infrastructure has been taking place. Furthermore, educational programs concerning cycling and sustainability targeted towards children are being organized.



Foundation Earth and People

The foundation frequently sets up educational and integration campaigns, that highlight how social and economic development can be combined with the protection of the environment. Their projects target social groups, local communities, government organization and business groups, as well as individuals. The Foundation Earth and People is experienced in the organization of high-quality seminars and training courses, expert analysis and other activities that aim to raise public awareness for environmental issues and concerns.



National
Technical
University of
Athens

Sustainable Mobility Unit - National Technical University of Athens

The Sustainable Mobility Unit of NTUA was created about 20 years ago, when it was realized that Greece, due to the mentality of its inhabitants, could not follow Europe's strategy to promote cycling and sustainable mobility in general. Since then, the SMU has participated in relevant European research programs, is present at international conferences and has prepared dozens of studies throughout Greece supporting the claims of local communities for a more humane and sustainable urban environment. SMU has also published 19 books and published hundreds of articles in scientific journals and newspapers.



National Observatory of Athens

NOA is one of Greece's oldest research institutions and contributes to the project with its rich experience in the fields of climate change, air quality, emissions and climate scenarios. The Institute for Environmental Research and Sustainable Development (IERSD/NOA) has a long track record of experience in monitoring of chemical substances, meteorological parameters and database management. Its large infrastructure includes nation-wide operational networks. IERSD/NOA communicates its scientific results to the public, policymakers and the educational community via science-policy events, workshops and the internet.



Ecocity

This partner is promoting sustainable mobility in Greece with various campaign and activities, such as 'Ecomobility' which has been running for 14 years, and the annual campaign 'Free-Mobility' which has been running for 3 years. Within the frame of these campaigns, student groups develop and present solutions for environmental and mobility issues on the local level to local authorities and decision-makers. Ecocity has been constantly organizing actions and events to address the Greek government and the public to reduce greenhouse gas emissions.



City of Tartu

Tartu, the second-largest city of Estonia is hosting the oldest university in the country. As a regional centre of South-Estonia decisions made in this city of about 97,000 inhabitants, will affect an entire region. Tartu can be considered as being one of the most progressive Estonian cities in terms of bicycle use and sustainable transport. In the summer of 2019, a city-wide bike-sharing system operating mainly on electric bicycles was successfully introduced in Tartu. In the same time, Tartu's public transport was transferred to 100% renewable fuels.



Baltic Environmental Forum Estonia

BEF Estonia is a non-governmental organization working in the areas of environmental protection and nature conservation. BEF EE experts have great experience in implementing EU and national financed projects on a wide range of topics including climate change and sustainable mobility. BEF EE works in different mobility- and climate-related projects. Sustainable mobility solutions can only be found through good planning and the consideration of individual mobility needs and behaviours as well as suitable economic and political instruments. BEF EE has helped to increase capacity in this field through different publications, seminars, and training sessions. BEF EE is a member of Estonian Council of Environmental NGOs which increases the organization's capacity to affect national and local level decisions and processes. BEF EE aims to preserve a sustainable environment by raising awareness and promoting environmental management to increase knowledge and improve the skills of different stakeholders



Union of Latvian Cyclists

The Union of Latvian Cyclists is an expert partner on cycling in Latvia and is a member of the European Cycling Federation (ECF), thus has excellent access to the EU-wide cycling network. The LCU has run a multitude of small, mostly advisory projects concerning cycling and is well connected to national authorities dealing with cycling and to planning authorities in Riga.



Baltic Environmental Forum Latvia

For years BEF Latvia's experts have been working on the issues of mobility, energy, climate change, nature conservation and biodiversity, chemical management and water management. BEF-Latvia has experience in supporting and promoting cycling in small and medium-sized cities. The NGO is part of the BEF Group.



Society for Sustainable Development Design (DOOR)

DOOR is a civil society organization of experts devoted to the promotion of sustainable energy development, founded in 2003. This civil society organization works on various activities encouraging citizens' participation in climate change mitigation and adaptation, sustainable energy policy-making, alleviating energy poverty and improving education related to sustainable energy issues. Furthermore, they are experienced in the design of Sustainable Energy and Climate Action Plans (SECAPs) for Croatian cities and counties, which among other issues cover transport and mobility aspects.



City of Velika Gorica

The urban area of the city counts 31,000 inhabitants being part of the larger municipality of Velika Gorica, which is home to 63,000 people. Located in Zagreb County, Velika Gorica is situated close to the Croatian capital. By taking part in European climate projects, the city is actively trying to reduce its CO₂ emissions and to take necessary steps towards becoming a sustainable, climate-friendly municipality.



Cyklokoalicia

Since its foundation in 2010, the non-profit group Cyklokoalicia has been advocating for the needs of cyclists and pedestrians. The NGO's experts have been working with Slovakian municipalities such as Bratislava, Trnava, Nitra, Trenčín and Košice to increase the quality and safety of bicycle and pedestrian infrastructure. In Bratislava, Cyklokoalicia runs a bike-sharing system, a cargo-bike rental service and initiated a community bicycle workshop. Since 2017 they have been a member of the European Cyclist Federation.



German Aerospace Center (DLR)

One of Cyclurbans expert partners on urban mobility and cycling is the DLR. While this partner does extensive research and development in aerospace, energy, safety and digitization, it also contains the Institute of Transport Research. The DLR Institute of Transport Research has experience in scientific and applied transport analysis on the national and international level, as it participated in and lead numerous EU and nationally funded projects. Many of their projects concern urban and electric mobility, ICT, and climate impact assessment.



ideas into energy

The non-profit organization promotes the international spread of sustainable climate and environmental protection technologies and policies. The experts from ideas into energy work in research as well as in the analysis and development of policy papers with regards to climate change policies in the EU and its Member States. Next to conducting studies, carrying out research and developing educational and policy advisory projects, they also organize conferences and workshops, which connect international stakeholders.



Baltic Environmental Forum Germany

BEF Germany was the lead partner in the Cyclurban project. The organisation has long experience in sustainable mobility and climate change policy implementation and has been working in many European projects dealing with mobility change and sustainable urban development. BEF Germany works on the interface between science, civil society, policy and administration and cooperates closely with other environmental organisations, research institutes and universities as well as with administrations of cities and municipalities in many European countries.

DEVELOPING LOCAL CYCLING STRATEGIES FOR SIX CITIES

One common transport strategy or tailored transport strategies for each municipality?

The Cyclurban project brought municipalities from different geographical regions of Europe together. Different in many ways, they all aimed to increase the share of cycling in order to battle climate change. Within Cyclurban's frame, politicians, practitioners, the public and scientists worked together to address the main characteristics and shortcomings of cycling traffic in their area, deciding on specific strategies to promote cycling and take specific action within the course of the project.

In all participating municipalities, the current status of cycling as a means of transport was assessed systematically in order to subsequently develop scenarios and to decide on strategies for further development. Therefore, a detailed questionnaire was prepared and distributed to all partner municipalities. It was divided in four parts, namely planning and organisation (procedures and time scales, funding tools, management/decision structure, existence of support/guidance), infrastructure (characteristics of the cycling network, quality, size, safety and future prospects), other actions (engagement, outreach and promotional activities) and attitude (attitude of politicians and planners, future plans).

The questionnaires were answered by persons working in the municipalities like municipal officers, by local politicians as well as by members of NGO's. It was revealed that a communication gap exists between the main actors responsible for enhancing and promoting cycling, including the municipality board, the dedicated transportation department, the NGOs, local civic organisations and educational units.

A characteristic example is the situation in Riga, where

cyclist organisations are very active in promoting and enhancing cycling, whereas the municipality is still slow in its procedures and planning and reluctant to cooperate. The main outcome of this survey is that the municipalities share some common characteristics, regardless of the development of cycling.

Planning and organisation procedures are quite similar in all municipalities, while regional and national level policies often reduce the effectiveness and speed of implementation of plans without providing the financial support that is needed. It seems that cycling is mostly regarded as a local issue, even though national policies are obligated to include sustainable mobility modes.

The status and development of the infrastructure reveals similarities among the municipalities (need for further cycling network expansion, not entirely coherent planning), but not all cities are familiar with the characteristics and functionality of their cycling networks or monitor them regularly, even though cycling represents a share of 1 - 6 % of transport modality in the partner cities. Moreover, personnel that is adequately trained is lacking.

Actions to inform and engage the public take place within the frame of local events like the European Mobility Week, but need to become more prominent, frequent and cause-oriented. Higher-level politicians usually state to support alternative modes of transport, however from general to specific they seem to lack the willingness to actually promote sustainable mobility plans which may be a result of powerful interest groups that have been lobbying for cars and motorized transport modes for decades.

The envisaged future of mobility for 2030 and 2050 is quite similar in all municipalities, even though some do not believe that they will reach them and don't push hard enough to accomplish their own visions. The process to analyze and assess cycling policies and infrastructure was assisted further by the Bicycle Policy

Analysis (BYPAD, www.bypad.org) that took place in all partner municipalities, except for Drama.

Based on the results from the BYPAD assessment, approaches that effectively promote cycling were developed. Some municipalities, such as Tartu, have long going regular cycling monitoring and assessment activities, in which they formulate future strategies and measure the progress. All municipalities focused their attention and plans on two important features: Infrastructure and Promotion/educational activities.

Regardless of the current state of their cycling infrastructure, further expansion, unification of the scattered cycling network, defining better cycle lane standards for new constructions and the use of adequate signs and marking to ensure cyclists and pedestrians safety were proposed as effective and universal measures for the further development of the cycling infrastructure in the partner cities. As an example, the City of Warsaw performed a pilot project where certain intersections were highlighted in order to improve pedestrian safety and facilitate the smooth coexistence of cyclists and pedestrians. In this way, they aimed to enhance not only cycling but also other sustainable, climate-friendly modes of transport without one of them inhibiting the others. The activities of Cyclurban also underline the importance of municipalities and public authorities participating in projects like Cyclurban, as their participation ensures engagement to the project objectives and application of measures.

Part of the Cyclurban project were also educational and promotional campaigns that were directed towards different groups of people. For instance, in Bratislava, the need to promote cycling to the public as well as the education of competent authorities on how to impose measures was deemed the highest importance. This twofold action helps to make biking feel safer and more comfortable and at the same time creates the possibility for authorities, like the police,

to communicate and interact with the public without creating insecurity or preventing people from using the bike.

Educational and promotional activities targeting the personnel were part of the strategy of many Cyclurban partner municipalities, just like in Tartu City and Velika Gorica. The significance of having an adequate number of trained personnel is high since it ensures continuous monitoring and maintenance of the cycling network, coherent plans, better knowledge on available funding tools, facilitation of funding towards cycling and longevity.

A general remark that can be made as a result of Cyclurban, is that there are many common elements in the respective strategies of municipalities to enhance cycling. However, the differences among the municipalities are related to the size and quality of the cycling networks, the transportation culture of their citizens, the complexity of administrative and political procedures and the availability of public funding. As a result, cities must locally adjust the existing methodologies and measures to succeed with their goals in making cycling a backbone of a climate-friendly and life quality enhancing urban mobility.

NATIONAL CYCLING POLICY ANALYSIS AND NATIONAL POLICY RECOMMENDATIONS

One of the core tasks of the Cyclurban project was to enhance the national level policies to support bicycle promotion in the partner countries. Although cycling promotion is primarily a local-level issue, the national level plays a key role in aligning the policies and the financial framework that steers cycling-related planning and investments.

To assess the weaknesses in policies and financial frameworks the Cyclurban partners carried out stakeholder interviews and policy analysis in each project country. Based on the assessed status quo together with expert knowledge, a list of national policy recommendations (NPR) was compiled for Estonia, Latvia, Slovakia, Poland, Greece and Croatia to advance cycling on the regional and national level. Slovakia joined the project at a later stage and was therefore not participating in the policy analysis which was done at the beginning of the Cyclurban project.

The national policy recommendations were discussed during national seminars and meetings with relevant stakeholders in each country. To ensure the influence of the national policy recommendations a letter of verification was compiled by the national or regional authority in the partner cities, confirming that the recommendations were handed over and will be considered in future policymaking.

POLICY ANALYSIS

A policy analysis was carried out in each partner country to see which national-level documents have an impact on cycling promotion or include cycling-related targets/initiatives. Sectors that were included in the policy mapping were transport, environment, spatial planning, economy, health and tourism. The analysis showed which sectoral documents currently include

direct or indirect measures related to cycling.

In the mapped countries cycling-related measures were mostly reflected in transport, environment and spatial planning documents. Policy areas that covered cycling the least were economy, tourism and education. This also showed that most of the countries did not have a national cycling strategy in force when the analysis was carried out in 2019.

Policy area	Target country				
	Estonia	Latvia	Poland	Croatia	Greece
Transport					
Environment					
Spatial planning					
Economy					
Health					
Education					
Tourism					

Direct reference to cycling

Indirect reference to cycling

No reference to cycling

INTERVIEWS WITH NATIONAL STAKEHOLDERS

The Cyclurban partners in Estonia, Latvia, Croatia, Greece and Slovakia carried out interviews with national stakeholders. The main conclusions from these interviews are --->

The common understanding that cycling has a very minor role in the counties' urban mobility and that there is huge potential for increasing it significantly

No existing national-level activities to improve cycling-related knowledge and skills in local municipalities - but the need for a stronger role is acknowledged

A common problem is the lack of basic cycling infrastructure

An absence of indicators to measure the efficiency of investments (including EU funds coordinated on the national level)

The importance of EU funds and their influence is different (very important in Estonia, Latvia and Slovakia. Not important in Croatia and not influential in Greece)

There are differences between municipalities in applying for funds (in Croatia and Greece cities are not active in applying for funds that have cycling components)

The absence of cycling committees (except for Slovakia and Croatia)



NATIONAL POLICY RECOMMENDATIONS

Slovakia, Latvia, Estonia, Greece and Croatia created national recommendations and Poland created some of the recommendations also for the municipal level in Warsaw. Each country team created 5-11 recommendations that were presented to stakeholders in national seminars and accepted by a national authority. The recommendations for all countries focused on 6 priority topics:

1. Legislation

All 6 countries received recommendations related to legislation (25 legislative recommendations in total). Estonia, Croatia, Latvia and Greece developed recommendations to create or update standards or development plans that consider cycling. Slovakia, Latvia and Croatia proposed specific safety-related measures such as cycling streets, 1.5 m lateral distance of the overtaking vehicle from bicycle riders and 30km/h zones.

Traffic calming and safety recommendations were also listed under the infrastructure topic, especially in Greece and Latvia. Estonia and Poland had a more general approach on infrastructure issues: Coherence in the infrastructure being built or modernised and considering the enhancement of cycling conditions a goal for all infrastructure projects. Legislative recommendations were also about prioritizing cycling in various ways, for example, to permit cycling in one-way streets in residential areas, obligations for bicycle parking and motivating companies to ensure sustainable transportation for employees. Some of the recommendations for Estonia and Poland proposed a broader political approach, such as the introduction of policy coherent evaluation, as well as the importance to enforce the laws on air quality and road safety, and the proposed task and budget shift down in the administrative level.

2. Capacity building

The partners in Poland, Estonia, Latvia, Greece and Slovakia developed recommendations for capacity building. It was proposed to increase the cycling-related capacities in municipalities and to support the cities' cycling strategies with expert knowledge and funding as well as the establishment of certified trainers and a systematic collection of cycling data at the municipal level. Also eliminating conflicts between pedestrian and cyclists and better involvement of the public were among the recommendations.

3. Infrastructure

Estonia, Slovakia and Poland addressed infrastructure based challenges through obligations under a legislative topic. Latvia and Greece developed specific recommendations about infrastructure. For example, roundabouts with priority for cyclists, no curbs on bike lines, offer an additional solution for a four-branch junction with cycling infrastructure, adjust handrails on bridges and overpasses, a mandatory lateral distance of overtaking vehicles to the cyclist.

4. Institutional/organizational changes

Croatia developed recommendations on institutional changes such as the establishment of the national working body for urban cycling/non-motorized transport/sustainable transport and developing functional regional masterplans on country level.

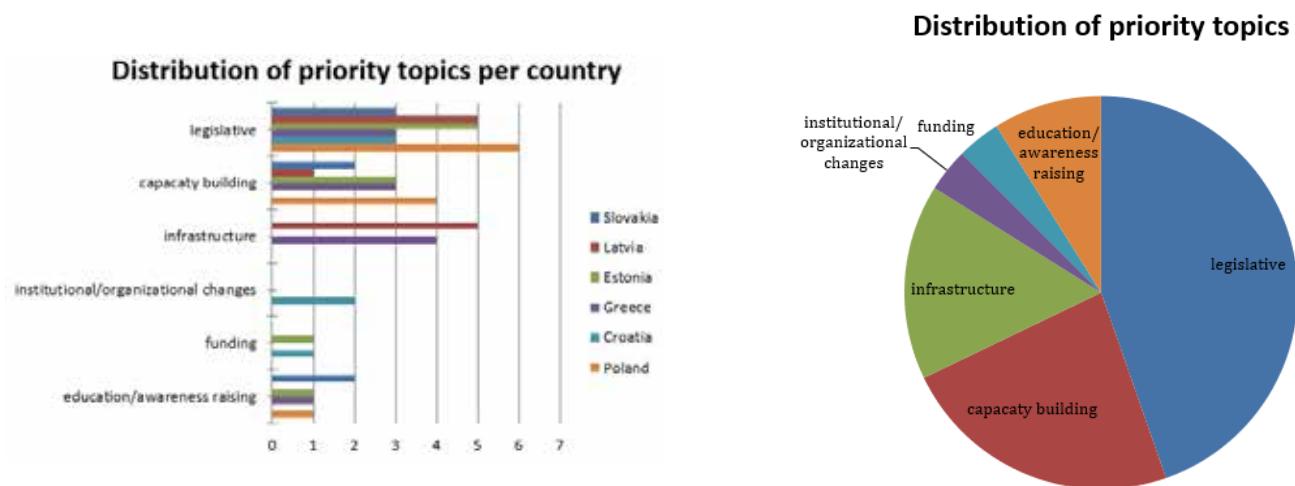
5. Funding

Estonia developed a recommendation on the establishment of a national financing program for the development of core cycling networks in the cities and Croatia on making public tenders for bike-sharing systems and public cycling infrastructure.

6. Education/awareness-raising

This priority topic was addressed in 4 countries. Slovakia created two recommendations concerning the training of public transport drivers on the needs of more vulnerable road users, incorporation of the cycling transport subject into the public television program structure. Estonia created a recommendation to develop a national communication program for cycling promotion and including additional components to driving school programs. Greece developed a recommendation to introduce a more sustainable cycling culture with the help of school campaigns and Poland proposes to educate children on using the roads as common shared space.

Although the NPR have a different focus in each country, they also have lots in common. Certain key measures can improve the cycling situation in all of the countries, such as the reduction of general car traffic, the establishment of more 30km/h zones, improvements in the financing of cycling infrastructure, education of cyclists as well as car drivers and many more. All countries are different in terms of city structures, prioritization of measures or the way conflicts between stakeholders are managed. To get a more detailed picture of the discussions in each country and the country-specific NPR that were developed in the Cyclurban project, please have a look at the country report chapters in this publication.



ROUTE CHOICE SURVEY

To allow for appropriate municipal cycle strategies, knowledge on cyclists' preferences for infrastructure and route surroundings is crucial. Against this background, the Cyclurban consortium carried out a study on route preferences led by our partner German Aerospace Center (DLR). The statements of cyclists as road users are used. Based on the results, we can give recommendations for national cycling strategies.

Individual route choice behaviour is influenced by several parameters of the routeing environment. At the same time, preferences for certain route characteristics differ strongly between individuals with respect to socio-demographics or bike types used. Hence, we developed a survey method which allows for differentiating amongst various factors. The online poll was designed as a discrete choice experiment. In this method, individual route characteristics were composed to complete route alternatives. In contrast to the classical questioning for individual features, the respondents evaluated entire route alternatives comprising the sum of these characteristics. Thereby, the duration of the trip as well as six properties of the road and its surrounding were differentiated, each with two to five possible specifications (see table 1).

From the variety of possible combinations, 24 choice situations, each with three different route alternatives, were created and graphically displayed. These were developed on the basis of the responses of a pretest using a special software package (ChoiceMetrics 2012). The situations were mathematically optimised to avoid overlapping between individual characteristics and ensure maximum knowledge gain per respondent (Bliemer, Rose 2006). Eight choice situations were shown to each respondent. Figure 1 shows an exemplary choice situation.

Attribute	Level
street type	Arterial road
	Side street
infrastructure	No infrastructure
	Bike lane
	Bike path
	Protected bike lane
regulation	Max 50 km/h
	Max 30 km/h
	Zone - 30
	Cycle street
	Living street
surface	Cobblestone
	Asphalt
parking	No parking
	Parking
street green	No trees
	Trees
travel time	8/10/12/15

Table 1: attributes and levels used in the experiment
(bold: reference situation)

Methods of discrete choice modelling were used to estimate utility functions based on the sum of the individual responses (Bielaire, 2003). Doing so, we calculated the extent to which the individual characteristics influenced the decision for a route. Mixed logit models take into account that the eight decisions made by each respondent are correlated, but that there is heterogeneity between the respondents (McFadden, Train 2000). The method allows the quantification of the utility of an alternative against the defined reference. As a reference situation, a main road without cycling infrastructure and road trees with a maximum speed limit of 50 km/h and parked cars at the roadside was chosen, so that any change in route characteristics represented an improvement for cycling.

On a day in May with good weather conditions you would like to visit a friend. There are several alternative routes for this trip. Which route do you choose?



Figure 1: exemplary choice situation

In the following, we calculated a value quantifying a route's perceived attractiveness by using the trip duration. This takes into account the individual time sensitivity and the individual assessment of the respective road characteristics. The resulting value can be interpreted as an experimental willingness for longer travel time related to road characteristics. Except for the travel time, all characteristics were represented graphically, which may lead to different consideration of this component.

The national partners distributed the poll mainly via social media. Hence the sample is self-selective and not representative. We included 2.326 full returns from seven countries (6 implementing countries and Germany). As every participant was presented with eight choice situations, this resulted in 18.608 observations.

The results

Results show that dedicated bike infrastructure along main streets is highly beneficial to road users (see Figure 2). According to the experiment, participants were willing to invest in the mean between 9.6 minutes (marked bike lane) and 16.7 minutes (bike lane protected by bollards) more travel time for the infrastructure compared to the reference. On side roads, cycle streets which give priority to cyclists were perceived much more beneficial than living streets which are defined by a very low-speed limit. On both street types, the utilities of a lower speed limit (30km/h), no parked cars and trees along the street were low. The smooth surface was worth a detour of 10.3 minutes in the mean.

Furthermore, the data shows several fundamental trends when differentiating between subgroups. Over the different countries in the area under investigation, physical separation from motorized transport and slower speeds of such are more important for women and for cyclists who are on the road with children than for men. In addition, older participants value better route environment higher than young ones. For frequent cyclists, poorer conditions are less inconvenient than for participants who use the bike infrequently.

Summary

Summarized, the results show that the route environment is of high importance for cyclists. Thereby a high-quality infrastructure is even more crucial for people who use the bike rarely as well as for elderly cyclists and such with children. Hence it can be

concluded, that a good bike infrastructure has the potential to attract people to cycle more and support vulnerable groups the most.

Type of infrastructure

Protected bike lanes are located on the street level. They are separated from motorized vehicles by bollards.

Living street: Maximum speed is walking pace. Pedestrians and playing children may use the road in full width. Pedestrians must not be endangered or hindered. If necessary, vehicles have to wait. Pedestrians must avoid unnecessarily obstructing vehicle traffic.

Cycle streets give priority to cyclists. Access for residents in motorised vehicles is allowed, with a speed of up to 30 km/h. Cyclists must not be endangered or hindered. If necessary, vehicles have to further slowdown. Cycling next to each other is allowed.

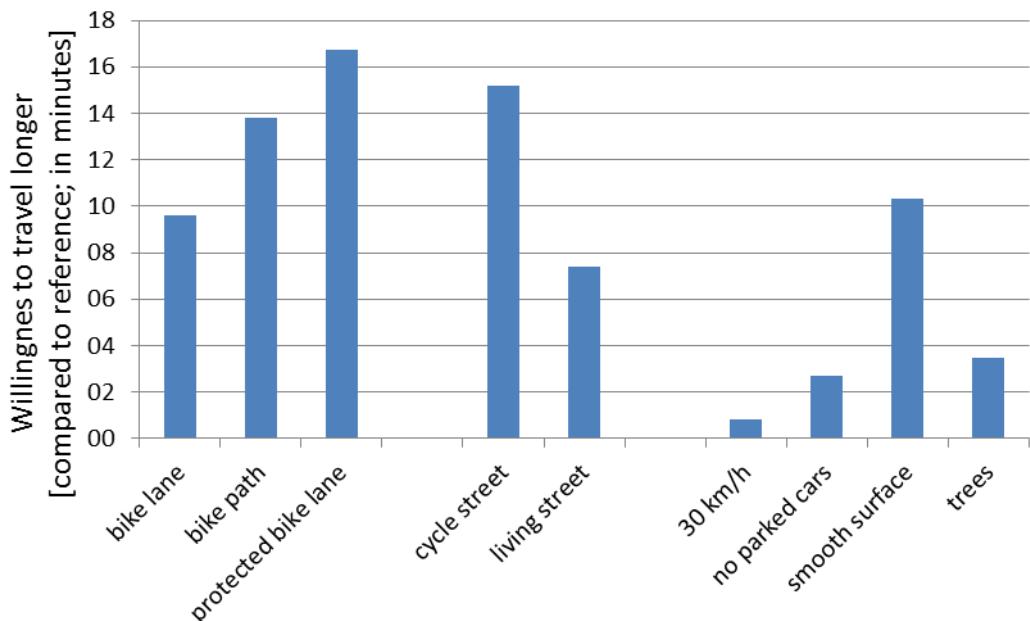
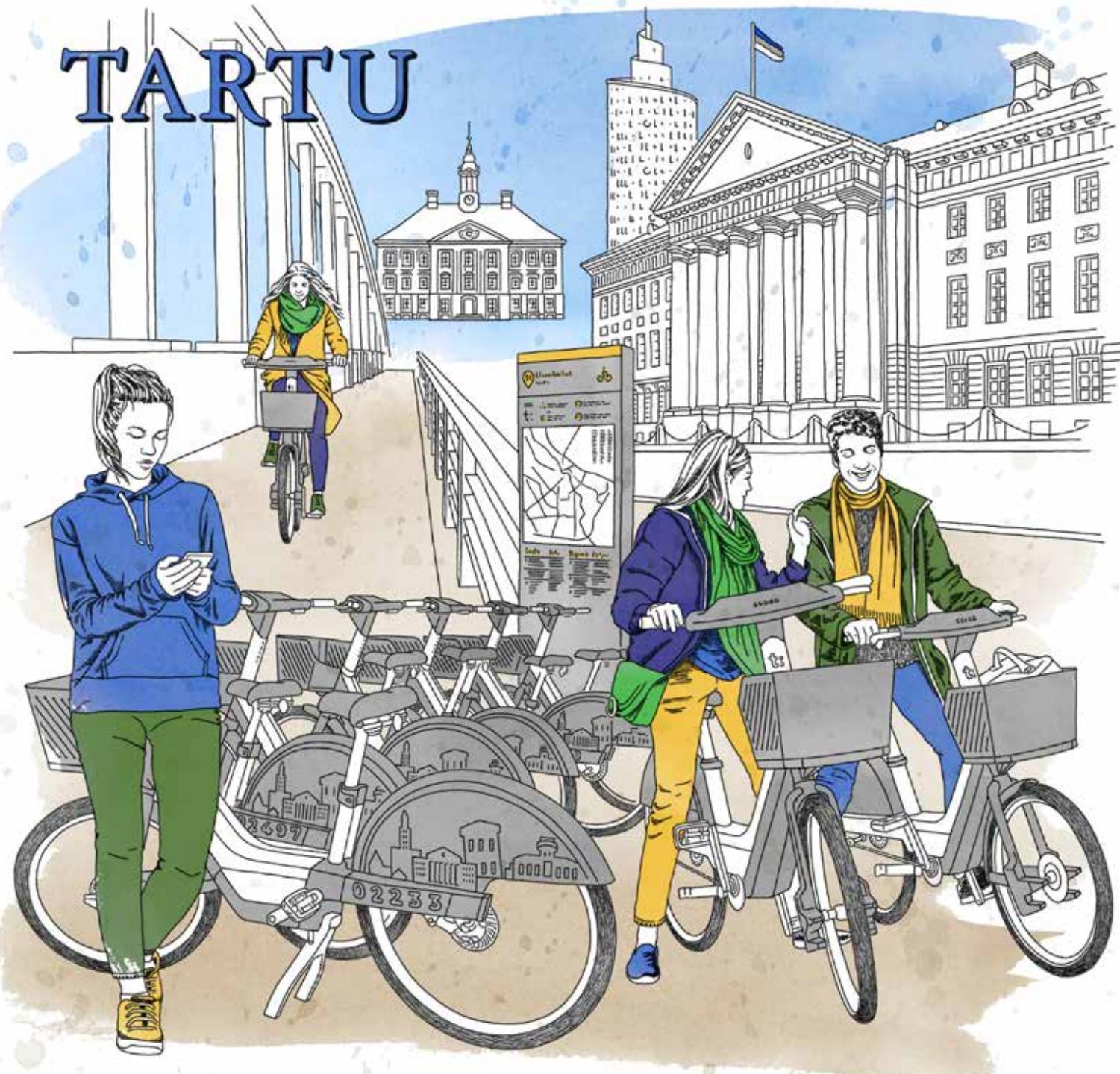


Figure 2: willingness to travel longer



TARTU



WELCOME TO TARTU!

Tartu is the second biggest city in Estonia and is actively trying to enhance the use of the bicycle as a means of transport. A cycling strategy was developed by the municipality and a successful bike-sharing system was launched in 2019. This makes Tartu one of the most progressive Estonian cities in terms of bicycle use. But still, the modal share for cycling has not increased as much as the share of private cars.

Tartu is a very compact city. There are around 100 000 inhabitants on 38,97 km². The diameter of the city is approximately 7 km and therefore distances inside the city usually do not exceed 5 km. Tartu is also a university town, with one of the oldest universities in Northern Europe and several other universities and higher education facilities. There are almost 17 000 university students living and studying in Tartu. 25% of the inhabitants of the city are aged between 15 and 29 years. So all together Tartu offers very good preconditions to become a successful cycling city.

While different researchers already carried out a number of studies investigating the potentials of cycling traffic in Tartu, the information had not been incorporated into an integrated concept. That is why politicians, decision-makers and stakeholders decided to create a cycling strategy in the frame of the Cyclurban project with the aim to boost cycling in the city and the surrounding areas.

What would be your dream city?

In my dream city all the streets would be pedestrian and cyclist-friendly shared room.

Raimond Tamm
Deputy Mayor, Tartu



Get to know Tartu

Located in	Estonia
Population	97 000
Population density	2 400 / km ²
Area	39 km ²
Modal split based on estimates	46% individual automobile transport 21,5% public transport 21,5% walking 8% biking, 3% other (motorbikes etc.)
BYPAD-score	2,5 = isolated approach
Roadwork	400 km urban roads; 20 km motorways
Length of bike paths	114 km
Yearly budget for cycling infrastructure	approx. 2 000 000 Euros

In order to learn more about the possibilities to increase the use of bikes in Tartu and to develop the bicycle strategy the city is lacking, it was decided to analyze the bicycle traffic strategies of eight European cities. Those cities all share multiple attributes with Tartu as they are student cities and are located in northern Europe and therefore have similar climate.

DEVELOPMENT OF TARTU'S CYCLING STRATEGY

For the first time in history, a bicycle strategy was developed for the city of Tartu, thanks to the Cyclurban project. This is noteworthy because such a comprehensive focused attention has not yet been attributed to any other mode of traffic in the city.

The development of the Tartu cycling strategy is based on the example of eight European cities with

fully developed bicycle traffic strategies. The sample includes Tallinn, Oulu, Tampere, Uppsala, Groningen, Odense, Amsterdam, and Copenhagen. Just like Tartu, Odense and Groningen are university cities. Tampere, Uppsala and Oulu were chosen because they are located up North and their climate is similar or even colder than the climate in Tartu. Also these cities have universities like Tartu. The chosen approach allows for gaining a good overview of how strategic development is managed in various cities in order to ensure the best all-year-round bicycle traffic. Tallinn was included in the sample, because it is the only city in Estonia with an already established bicycle strategy; Copenhagen



and Amsterdam represent excellent bicycle cities that inspire with their good practice.

The developed strategy is very ambitious and has a clear vision:

Bicycle traffic vision for 2040:

- The bicycle is the preferred all-year-round mode of transport and walking is the preferred mode of travel – the residents of Tartu travel daily mainly by bicycle or on foot.
- The strategy aims to achieve a result where by 2040 the share of cycling in the modal split has risen to 26% and the share of private motorized vehicles has fallen to 13%.

With the adoption of the Cycling Strategy, a new position will be created in Tartu City Government - the Bicycle Coordinator. Since to date, cycling has been well-fragmented across departments, the arrival of a coordinator will usher the city in a new cycling era. We are particularly pleased that Tartu's activities in the field of cycling have attracted attention at the national level, and in connection with the new national transport and mobility plan we have been able to make proposals that are long-term in nature and help to enliven cycling.

Which first steps must be taken in your city now to make your mobility vision happen?

There should be a shared vision between the state, region and city.



Mari Jüssi
Tallinn SUMP Co-Coordinator

HOW GOOD IS THE CYCLING POLICY IN THE CITY AND HOW EXACTLY CAN IT BE IMPROVED?

From September 2018 until May 2019 the second BYPAD audit for Tartu was carried out by the Cyclurban project partners. The first BYPAD dates back to 2006 and since then, Tartu managed to develop its cycle friendliness in some areas and doubled the modal share of cycling (2009: 4,5%, 2018: 8-9%). As a result the BYPAD score got significantly better (from 44,1% to 62,2% or from Level 1 to level 2,5 out of 4). It should nevertheless be emphasised that this audit was carried out at the time when Tartu's cycling strategy was still under preparation, but this document is an essential component in reaching Level 3, which is a system-oriented bicycle policy.

Unfortunately, cyclists' needs are often still not regarded before and during decision-making processes

What do you think is the biggest problem in your city regarding the development of cycling?

The city government's reluctance to commit itself to wholeheartedly to policies that favour cycling and walking at the expense of the convenience of car users. Although everyone knows that more space for pedestrians and cyclists and better public transport inevitably means less space for cars and less convenience for car users, it is difficult for politicians to admit this, and this is a stumbling block for change. This has a lot to do with the perception of the car as a status symbol, especially by older generations, and the perception of the bicycle and bus as poor man's choices. The speed of change will no doubt be linked to how quickly these perceptions will change in the society as a whole. But decision-makers need to understand that they too can have an important role in actually changing these perceptions.

Ilmar Part
Cycling Enthusiast



Tartu cycling strategy will help to tackle these problems as soon as it is implemented.

In order to make Tartu's citizens more motivated to use their bikes, the BYPAD suggests to increase the knowledge of Tartu's citizens on the benefits of bicycle use. In cooperation with educational institutions as well as with companies and their employees and the media, informational campaigns can contribute to boost cycling in Tartu. An agreement between primary schools and the city outlined in the new cycling strategy will ensure that streets in school areas are increasingly bike-friendly by developing a school transport plan.



in Tartu. It frequently occurs that bike users find their involvement to happen too late: when time is running out or decisions have already been made. In order to precisely consider the needs of cyclists in policy making, a cyclists' satisfaction survey with biking infrastructure will be conducted by the city government. That survey includes the introduction of public participation in the annual review of the bicycle strategy, as well as an annual satisfaction survey on cycling traffic.

Although several sectoral documents of Tartu cover cycling issues, the development of cycling infrastructure has been sluggish. Construction of infrastructure for bikes happens rather randomly and is barely prioritized when compared to the construction of infrastructure for other means of transport. The

During the last year the city of Tartu systematically managed to calm traffic by increasing the amount of areas with a 30 km/h speed limit. That measure increases the safety of cycling and will therefore be used further. Additionally, a database that combines information on cycling accidents with information on infrastructure is going to be made available for planners. The use of such data can avoid the reoccurrence of planning mistakes that result in accidents.

DEVELOPMENT OF NATIONAL POLICY RECOMMENDATIONS FOR ESTONIA

The proposed National Policy Recommendations (NPR) are measures, which aim to support the further growth of cycling at relatively low implementation costs. The recommendations represent measures with the possibility of their immediate and medium-term implementation, which are directed towards different stakeholders, and which mitigate identified barriers and focus on a few priority areas.



The NPR have been developed by the Estonian project partners together with stakeholders such as city planners, architects, municipal experts, members of the police, cyclists, local politicians and others. The stakeholders were invited to discuss appropriate measures that function as reasonable and low threshold steps to successfully enhance cycling in Estonia

What do you think is the biggest problem in your city regarding the development of cycling?

Cycling provides me with a high quality of life: an easy way to get to and from places without wasting my time in traffic - and being able to talk with my children while riding our family cargobike. For those who do not transport kids on a daily basis, I recommend considering the health effect over time (10-30 physical movement on a daily basis is good) as well as the time one can have without looking at a screen. It is also a considerable effect an individual can give to improve the health of the planet and the immediate surroundings by not polluting and claiming public space that belongs to us all.

What is important however, is this: most people cannot make this choice even if they wanted to. Tallinn forces people to use cars by designing the city for car users.

Unless you are really lucky to have your work, food store, daycare or school all in your 15 minute vicinity, then you do what most people do. Drive across town several times for these things, because Tallinn does not build enough preschools and distributes them evenly across the city.

Pärtel-Peeter Pere

Place Branding Expert, entrepreneur



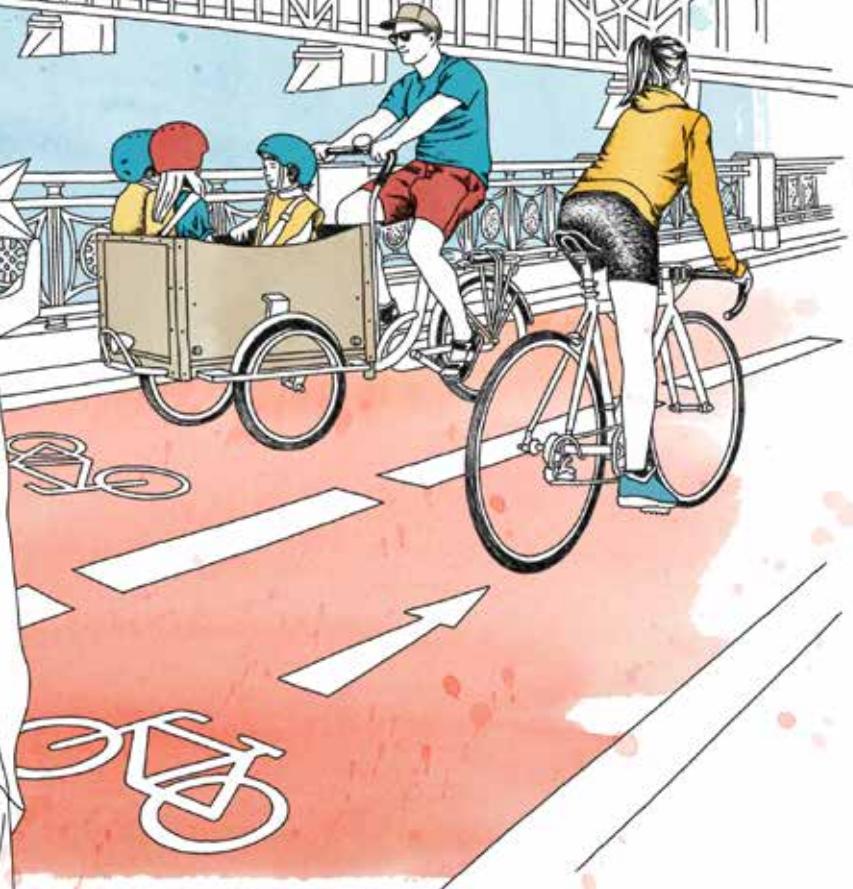
NATIONAL POLICY RECOMMENDATIONS ESTONIA

No	Recommendation	Status quo description	Proposed policy change description
1	Establishment of a national development plan for walking and cycling	Currently, there is no cycling policy or strategic plan for promoting cycling in Estonia	A development plan would offer a broad framework within which it is possible to locate the role and importance of individual measures. It would also establish the hierarchy and timing of individual measures, thus offering specific guidelines for officials on various administrative levels
2	Updating the construction standards for urban streets by enhancing the parts concerned with walking, cycling and micro mobility	Currently, the approach to sustainable mobility in the construction standards is incomplete. Standards are designed primarily according to the needs of car traffic.	The standards should be corrected so that the pedestrian and bicycle roads are treated separately not together as "light traffic" and that the basic characteristics of streets are not defined from the car perspective alone.
3	Considering the enhancement of cycling conditions as a goal for all infrastructure projects	Currently, infrastructure projects often create unattractive conditions for cycling because the enhancement of cycling conditions is not one of the aims of these infrastructure projects	By requiring cycling conditions to be considered and prioritised in the planning process of every infrastructure project, this measure would make sure that new infrastructure projects do not create unattractive conditions for cycling
4	Requiring regional bus lines to have the capacity to carry at least 4 bicycles per bus	Currently, it is not possible to transport bicycles on regional buses, which makes it difficult to combine bus and bicycle transport for sustainable multimodal trips	With this measure, regional bus operators would be required to provide people the opportunity to transport their bicycles on the bus. An exception would be made for especially busy lines where excellent Bike & Ride facilities should be prioritized.
5	Developing financial incentives for promoting cycling	Currently, employers cannot pay tax free compensation to employees using their private bicycle, and there are no subsidies for buying special purpose bicycles such as electric cargo bikes while there is an existing measure for electric cars.	This measure would make it legal to pay tax free compensation for using one's private bicycle, similar to car use compensation, and would develop subsidies for buying electric cargo bikes similar to the already existing measures for electric cars.
6	Supporting cities' cycling strategies (with funds and advice)	Currently, the government does not support cities' cycling strategies. Such strategies are, however, being compiled in the largest cities without government's support	This measure would offer know-how and funding for compiling cities' cycling strategies. These strategies are a necessary extension to the national cycling development plan

No	Recommendation	Status quo description	Proposed policy change description
7	Increasing the capacities of relevant experts in local municipalities for walking and cycling inclusive planning and decision-making	Local level strategic mobility and spatial planning have a strong effect on cycling conditions in a municipality. Though municipalities' experts have different knowledge backgrounds. Missing or outdated knowledge on cycling inclusive planning can hinder cycling promotion at local level.	This measure would provide national training programmes and support structures to increase the capacities of municipal experts in the field of walking and cycling inclusive planning and decision-making.
8	Developing a national communication programme for cycling promotion	There is no existing communication plan for cycling promotion. Communication targeted to bicycle use has mainly been connected to traffic safety and has therefore often carried discouraging messages.	This measure would provide guidelines for communication on cycling promotion for local municipalities.
9	Enhancement of skills and capabilities of drivers and cyclists	The current ability of drivers to be considerate towards cyclists is poor due to, in large part, ignorance of cyclists' needs and behaviour. Cyclists often lack basic knowledge and skills to safely engage in traffic.	Driving schools would be required to include a module explaining cyclists' viewpoint and drivers' behaviour necessary for cyclists' safety. The practical part of cycling courses would be significantly enhanced with the inclusion of real street cycling experience.
10	Establishment of a national financing program for the development of core cycling networks in cities	Currently, the cycling infrastructure is insufficiently developed in most of the Estonian cities. There are problems with the quantity as well as the quality of infrastructure.	This measure would provide financing for building new cycling infrastructure in cities. It would improve both the quantity and quality of cycling infrastructure in Estonian cities.



SĪCAI RĪGA



HELLO RIGA!

Riga is the capital and largest city of Latvia. The city has a population of about 630.000 people and an area of 324 km². Although traffic policy is still very car-oriented and the existing cycling infrastructure is not satisfactory the number of cyclists on the roads has increased in recent years. The number of private cars constantly grew so that congestion and space problems threat the city and its inhabitants. To face these problems, politicians and planners need to support active mobility and put life quality and climate protection into the centre of future urban planning.

In Latvia, city- and transport planning has traditionally been very car-oriented. As a result of growing welfare, many people bought new cars, which is why road traffic in Riga has become increasingly drastic within the last decades. People in Riga have relatively long travel times to work, mostly because the distances between homes and workplaces are relatively long. Due to urban sprawl, the number of people commuting to Riga from the suburbs is increasing every year.

Even if the modal share of biking has increased lately, there is no sign that the dominance of private motorized mobility is going to decrease, unless serious measures that boost cycling, walking and public transport are

How would your dream city look like regarding traffic/mobility?

A city where traffic is organized humanely and the streets are adapted for the smallest and the weakest so that children can travel safely to school so that seniors are not isolated in apartments and streets can be easily and safely walked and cycled.

Oto Ozols

Architect, Urban Planning Expert,
Board Member "Pilsēta cilvēkiem"



Get to know Riga

Located in	Latvia
Population	632 614
Population density	1 952 / km ²
Area	324 km ²
Modal split based on national estimates	46,9 % individual automobile transport; 15,2 % public transport; 33,4 % walking; 3,7 % biking 0,8 % other
BYPAD-score	1,74 = isolated approach
Roadwork	1191 km urban roads (2016)
Length of bike paths	approx. 70 km
Yearly budget for cycling infrastructure	approx. 250 000 Euros

taken. The project Cyclurban aimed at just that: Define actions that help cycling to become a popular and widely respected mode of transport in Riga!

To reach this goal, the Latvian project partner organizations Latvian Cyclist's Union and Baltic Environmental Forum Latvia organized workshops on different occasions, conducted a BYPAD audit to identify shortcomings in the local cycling policies and worked together with relevant stakeholders to identify short- and midterm measures that can boost cycling with relatively low effort. These measures were – like in all partner countries – listed as National Policy Recommendations and distributed to decision-makers.

COOPERATION WITH THE 'CONVERSATION FESTIVAL LAMPA 2019' IN CĒSIS

A huge success of the Cyclurban project in Latvia was the cooperation with the Conversation festival LAMPA 2019 in Cēsis. While this popular festival does include musical acts, experiencing live-music was not the only reason for 20 000 people to visit LAMPA on the 19th and 20th of June 2019. Other than a conventional festival, LAMPA creates a platform which offers discussions on a variety of political issues.

The festival aims to 'enable to overcome apathy' by creating 'two uplifting days, during which one can sharpen one's mind, expand one's horizons, challenge one's assumptions' (www.festivalslampa.lv/en). Considering the positive feedback by festival visitors, the Cyclurban partner organizations Latvian Cyclists' Union (LCU) and Baltic Environmental Forum Latvia (BEF LV) successfully contributed to the experience at LAMPA. Together, the LCU and BEF LV organized a discussion titled "How can economy benefit from cycling?". The LCU defends the rights of everyday cyclists on the political level and BEF LV promotes the significance of environmental protection and climate mitigation. This enabled them to find many interesting partners for the discussion panel.



The discussion panel included Tālis Linkaits (Minister of Transport of Latvia), Ēriks Eglītis (State Deputy of Ministry of Economics of Latvia), Uģis Mitrevics (Mayor of Sigulda) and Viesturs Laurs (Transport Planning Expert). The participants' diverse backgrounds made it possible to approach the issue from multiple perspectives. The 200 participants were actively engaged in the debate and of course, did not stick to one simple answer for the complex discussion question. Among other issues, the role of cargo bikes in inner-city transport logistics was debated.

At the end of the event, a vote for the 'best' question was held. The winner of that vote received a practical gift: A BPA free thermos water bottle and chargeable bicycle lights.

ACTIVITIES DURING THE EUROPEAN MOBILITY WEEK

During the EUROPEAN MOBILITY WEEK 2019, Facebook-users were asked to share photos of the most dangerous and coolest cycling spots in Riga. Twenty cyclists sent pictures as a response to this Facebook-post. Four of them received a BPA-free water bottle and rechargeable bicycle lights.

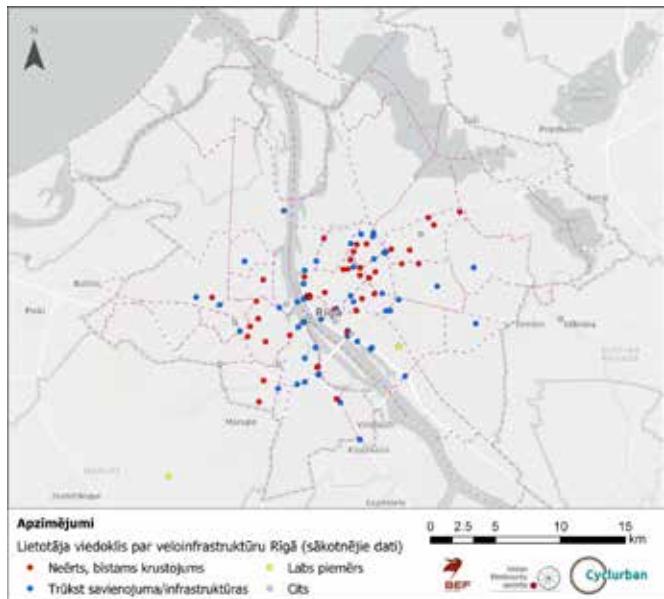
Furthermore, Cyclurban was present at a Bike2work event which was part of the EUROPEAN MOBILITY WEEK. Bike2work is directed towards companies that want to encourage their employees to use their bikes for commuting to work. The local sustainable transport campaign Gudrais pilsētnieks and multiple bike-friendly business providers, that sell clothing and other equipment for cyclists were present at the event. Together, the organizers provided a range of activities on a square near the Freedom Monument in Riga.

One of these activities was the start of the GIS survey about cycling infrastructure. The survey was conducted to collect information about the cycling infrastructure in Riga. Based on this survey unsafe/dangerous



junctions, as well as places that lack connections or infrastructure for bikes were located. We also found positive examples of how biking infrastructure in Riga should look like.

The surveys' findings are summarized in the following heatmap.



Which first steps must be taken in your city now to make your mobility vision happen?

Reducing the maximum speed does not require any investment, but significantly improves road safety. We should start with that. This area would require infrastructure that simply does not allow for faster driving.

Toms Alsberrs

Professional Cyclist, World Champion of Red Bull Mini Drome in 2012



NATIONAL STAKEHOLDER EVENT: VELO FORUMS 2020

In cooperation with the Ministry of Environmental Protection and Regional Development of the Republic of Latvia, the 'Velo Forums 2020' was held in January 2020. The event was the largest national stakeholder meeting for cycling within the last years.

The event was opened by the parliamentary secretaries from the Ministry of Environmental Protection and Regional Development of the Republic of Latvia and the Ministry of Transport of the Republic of Latvia. In total 130 participants from different municipalities, governmental institutions or non-governmental institutions were present. The event was attended by mobility experts, transport planners, cycling activists, students and tourism experts. More than 300 people joined an online video stream.

The first part of the event included the presentation of the results from the Cyclurban project, as well as news on micromobility and transport regulations. Afterwards, an interactive discussion took place. During this discussion, the participants came up with solutions for different problems concerning cycling. They also discussed which short-term actions municipalities can take to promote cycling. The results

of this interactive group work have been summarized and will be submitted to the Ministry of Traffic of the Republic of Latvia. The summarized context should help the Ministry to reach the goals of the current National Cycling Plan. The summary furthermore serves as a basis for the National Micromobility Plan which still has to be developed and focuses on the role of 'last and first-mile' transport modes.

One day after the event the project expert Liga Pakalna, and Viesturs Silenieks, the president of the Latvian Cyclist Union, were part of the morning broadcast on 3Play, a popular private TV channel.



HOW GOOD IS CYCLING POLICY IN RIGA AND HOW CAN IT BE IMPROVED?

Based on the bicycle policy audit (BYPAD)

While Riga does have a comprehensive cycling strategy, a clear action program does not exist. The BYPAD audit that was conducted in Riga as part of the Cyclurban project found that the current cycling infrastructure development plans should be tailored more appropriate to the needs of cyclists. Furthermore, the biking infrastructure is usually planned separately from street building projects which is why the needs of cyclists are rarely considered in planning processes. On an occasional basis and only within specific projects cyclists can become involved in the planning of cycling infrastructure.

The audit evaluators furthermore emphasized that a reevaluating of the role that schools can play for cycling education could help to boost cycling in Riga. Within the audit, it was discovered that there is a need to improve the safety of pupil's bike rides to school. More lessons on traffic regulations and road safety could help to make biking safer, and therefore more attractive as a means of transport for schoolchildren.

During the last years, funds for the development

of bicycle traffic have been granted, but the visible development of cycling infrastructure happens slowly and only fragmented. Funds were also used for activities that have promoted the use of bikes as a means of the daily commute. Also, bicycle parking is now included in all new urban development projects.

One more result of the BYPAD audit was that Riga currently does not have a systematic approach concerning the collection and analysis of data on cycling. The city uses the Road Traffic Accident Analysis and annual accident statistics which are collected by the police. To improve infrastructure systematically, the analysis of data should be improved. Altogether the audit resulted in a BYPAD score of 1.74 (from 0: no activity to 4: integrated approach) which means Riga follows an isolated approach.

How would your dream city look like regarding traffic/mobility?

There is place for every commuting mode. The City has a well-developed bicycle infrastructure that is safe and secluded from car traffic and evenly covers the urban area. There are also enough bicycle parking places in the city and fewer risks to health and life when cycling. Car traffic is not forbidden, but it is significantly restricted, as alternative modes are more competitive - saving both time and money.

Alda Ozola

Deputy State Secretary of Ministry of Environmental Protection and Regional Development of the Republic of Latvia



NATIONAL POLICY RECOMMENDATIONS LATVIA

No	Recommendation	Status quo description	Proposed policy change description
1	Permit cycling in both directions in one-way streets in residential areas	Currently, paragraph 193 of the Latvian Road Traffic Regulation (RTR) states that pedestrians are allowed to move in all directions on sidewalks and carriageways that are located in residential areas, on gas stations or parking areas. The paragraph does not describe whether cyclists are allowed to do so as well.	Edit paragraph 139 of the RTR: ‘In residential areas, on gas stations and in parking areas pedestrians and cyclists are permitted to move along sidewalks and carriageways throughout their width in all directions.’
2	Introduction of cycling streets	The Latvian RTR currently does not include cycling streets.	A new sign should be added to the Standard for Road Signs and Road Traffic Rules. The sign should indicate that bicycles have a priority on the street of concern and that ‘the car is a guest’.
3	Adding new signs to the standard for road signs and road traffic rules	Currently, no sign indicates that a street ends with a dead end for cars only, and not for pedestrians and cyclists. There also is no sign that draws car drivers attention to the fact that cyclists use a one-way street in both directions.	Add new signs to the Standard for Road Signs and Road Traffic Rules: „A dead end, except for cyclists and pedestrians“ and „Oncoming cyclist“
4	Recommended bicycle lane in the residential area with high cycling traffic intensity	High cycling traffic in residential areas makes dangerous situations.	The proposal is to use a pictogram to show a preferred bike trajectory in the Residential Area, where it is being crossed by a cycling route or leads to a school/kindergarten.
5	Introduction of a 10 cm wide bike lane marking; Introduction of bicycle lanes with a dotted line	Currently, the width of the lines surrounding the bike lanes in Latvia is 30 cm. Their surface gets slippery during wet and snowy conditions. The use of such wide lines is expensive and disadvantageous, compared to thinner lines. Bike lanes currently do not have dotted markings.	Bike lane markings should be 10 cm wide. Bike lanes that have dotted markings should be used.
6	Guidelines for Residential Areas	Currently, there is not a clear definition and guidelines for residential areas, hence they differ and usually are unsafe for the movement of people and transport. As new housing development and cycling traffic increases, it is important to ensure traffic safety for all.	The proposal is to develop standardised Guidelines for Residential Areas that will assure the understanding of them from a legislative perspective and increase the well-being of people living in such areas: including but not limited to traffic calming methods, road markings, traffic signs, road design etc.. Among other things it will increase the priorities and safety of cyclists and pedestrians in Residential Areas.

No	Recommendation	Status quo description	Proposed policy change description
7	An offset of the traffic light cycle	In Latvia, pedestrians, cyclists and car drives usually receive a green light at the same time.	The standards for traffic lights should be updated. The new version should include the option of an offset in the light signal cycle. With an offset of about three seconds, pedestrians should be the first ones, cyclists should be the second ones and cars should be the last ones to have a green light.
8	Roundabouts that prioritise the needs of cyclists	Currently, roundabouts in Latvia frequently do not serve the needs of cyclists.	The Latvian Road Standard should include roundabouts that make cycling safer and more comfortable. On those roundabouts, the cyclist should not have to cycle over curbs or other obstacles.
9	Revision of bike rack standard	The current bike rack standards are not adequately serving the needs of cyclists.	The current bike rack standards should be reviewed and edited. The new version of the rack standards should consider that there are different types of bicycles (cargo bikes) that have different needs when it comes to bike racks.
10	Changing the positioning of handrails on bridges and overpasses	Frequently handrails on bridges and overpasses point towards the centre of the path. That is not safe for cyclists and is a waste of road space.	Handrails should be placed in a way that does not endanger cyclists or waste road space by pointing towards the centre of the path.
11	The mandatory lateral distance of overtaking vehicles from the cyclists	Currently, "The driver must, depending on the speed of travel, choose a distance which, in the event of braking of the vehicle in front, is likely to avoid a collision, and to choose an interval which ensures road safety."	The proposal is to supplement the existing paragraph with by adding: „When overtaking cyclists and pedestrians travelling on the road or its outskirts the maximum possible interval should be chosen. On hard-surfaced roads in non-urban areas, the lateral distance of an overtaking car from a cyclist should not be less than 1.5 meters. In urban areas, the lateral distance of an overtaking car from a cyclist should be more than 1 meter.

Warszawa



DZIEŃ DOBRY, WARSAW!

In Warsaw, the capital of Poland, a positive transition in cycling infrastructure has occurred within the last five years. But even though cycling is no longer regarded as being a niche or just a recreational thing, establishing it as an equal or preferred mode of transport requires additional work. Luckily, Warsaw has a dedicated team of experts in the road authority that is not afraid of trying alternative approaches and discuss them with the public. They run public participation processes during which they remain sturdy but teachable. In the past five years, a cycling network has been developed and bike lanes have been fixed and were improved in quality.

But there still is a lot of room for development when it comes to the acceptance and popularity of cycling as a mode of transport. That is why Cyclurban chose to boost cycling with the help of the City of Warsaw's road authority and the Foundation Earth and People. Within the frame of the Cyclurban project many activities were organized with the aim to boost cycling. An experiment on pedestrian and cyclist conflicts was conducted and a national seminar with key stakeholders and decision makers took place. Furthermore, the quality of Warsaw's cycling infrastructure was assessed in a BYPAD audit.

What is the most beneficial thing your bicycle gives to you?

To walk or cycle is the best thing you can do for yourself after a day in the office. It changes your whole mindset. You recover very quickly. Cycling is a buffer between my work life and family life.

*Michał Brennek
Project Manager, Cyclist*



Get to know Warsaw

Located in	Poland
Population	approx. 1,8 million
Population density	3 448 / km ²
Area	517 km ²
Modal split based on national estimates	32 % individual automobile transport; 47 % public transport; 18 % walking; 3 % biking
BYPAD-score	2 = isolated approach
Roadwork	2 437 km urban roads; 31 km motorways
Length of bike paths	approx. 600 km

THE PILOT PROJECT “PEDESTRIAN VS. CYCLIST CONFLICTS”

At a cycling stakeholders meeting in Warsaw, the Warsaw Road Authority together with multiple stakeholders planned a pilot project to address “pedestrian versus cyclist conflicts”. Pedestrian versus cyclists’ conflicts can occur when those two parties share limited road space and the distinction between bike paths and footpaths is unclear and can make the experience of biking or walking within a city unpleasant, stressful or at times even dangerous.

The diverse team of experts, cyclists and road engineers focused on solving specific issues, rather than on producing another lengthy strategic document. In the past, many pedestrians and cyclists complained about incidents in the same four spots in the city centre. Consequently, the pilot project focused on the problems at these spots and developed solutions. Before any changes were made within the conflict area, the initial situation was assessed. ‘How

many conflicts occurred between the two parties? Did cyclists need to slow down a lot to avoid running into pedestrians?'. Questions like these were used to assess the key problems in those spots. Observations were then made to evaluate the effects of the changes that were done within the frame of the experiment. Among other changes, new signs were developed, structural paint was applied and changes on the biking lane's surface were made.



After the surface was changed less pedestrian-cyclist conflicts occurred. Both parties were questioned and indicated that they felt safer than before the experiment. Especially Warsaw's cycling activists liked the change that was made. With this experiment, Cyclurban contributed to the enhancement of data-



A success story: a surface change in one of the conflict areas

based decision making in infrastructure planning and execution. The experiment's success can now be experienced in Warsaw by everyone who happens to drive by.

NATIONAL SEMINAR

At the National Seminar, the Polish Cyclurban partners, cyclists, politicians and members of multiple NGO's were present. The highlight was a presentation of the cycling route choice survey by the Cyclurban partner Deutsche Zentrum für Luft- und Raumfahrt (DLR). Furthermore, the results from the pedestrians vs. cyclists pilot project were discussed. A before and after comparison of the changes was presented.



THE REVITALIZATION OF THE BIKING PARLIAMENTARY GROUP

The Biking Parliamentary Group used to be an advisory body to lawmakers. Its members are passionate bike riders that represent the interests of cyclists in Poland in the national parliament. The urgent need to revitalize the group was discussed during many Cyclurban meetings and thanks to the support of the project community this idea gains momentum. The current political staff lacks much-needed expertise and are in search of experts. The Cyclurban partners are very positive that the group will be established again.

What would your dream city look like in terms of mobility?

Due to the size of Warsaw, the most important means of transport was, is and will be public transport. In the second place, it should be a bicycle, in the third place pedestrian traffic, and only at the very end, it should be a car.

Mikolaj Gierych

Architect and Owner of Gierych Studio



HOW GOOD IS CYCLING POLICY IN WARSAW AND HOW CAN IT BE IMPROVED?

Based on the Bicycle Policy Audit (BYPAD)

There are very different problems concerning cycling in Warsaw today than there were five years ago. Compared to today, cyclists faced more struggles and dangers: the biking infrastructure was underdeveloped, meaning that cycling paths weren't interconnected and were of inadequate quality. While the interconnectedness and quality of the biking lanes should still be improved, there was a lot of good development in the past years. The BYPAD audit was conducted to show the shortcomings that remain and to find out on which areas Warsaw should concentrate on, to further improve the quality of cycling.

The BYPAD audit showed that there are very diverse stakeholders contributing to the debates about cycling. Their approaches are ranging from eco-activism to purely utilitarian. As a result, the BYPAD indicates that stakeholders should work closer together for successful solutions concerning biking in Warsaw. Furthermore, there is still a gap of knowledge between decision-makers, experts and cycling activists. An aim

should be a similar level of knowledge so that the diverse parties can cooperate better in finding well-working solutions. Even if the cities cycling policy is evaluated representing an "isolated approach" in the BYPAD audit, this score could be easily improved by creating synergies and coherence.

DEVELOPMENT OF NATIONAL POLICY RECOMMENDATIONS FOR COUNTRY

The proposed National Policy Recommendations (NPR) are measures, which aim to support the further growth of cycling at relatively low implementation costs. The recommendations represent measures with the possibility of their immediate and medium-term implementation, which are directed towards different stakeholders, and which mitigate identified barriers and focus on a few priority areas.

The NPR have been developed by the Polish project partners together with stakeholders such as city planners, architects, municipal experts, members of the police, cyclists, local politicians and others. The stakeholders were invited to discuss appropriate measures that function as reasonable and low threshold steps to successfully enhance cycling in Poland.

How would your dream city look like regarding traffic/mobility?

I hope for greater understanding between road users - drivers, cyclists, pedestrians, scooters. Infrastructure is improving, but we need to work on interpersonal relations, we cannot handle everything by law.

Zbyszek, senior and citizen of Warsaw

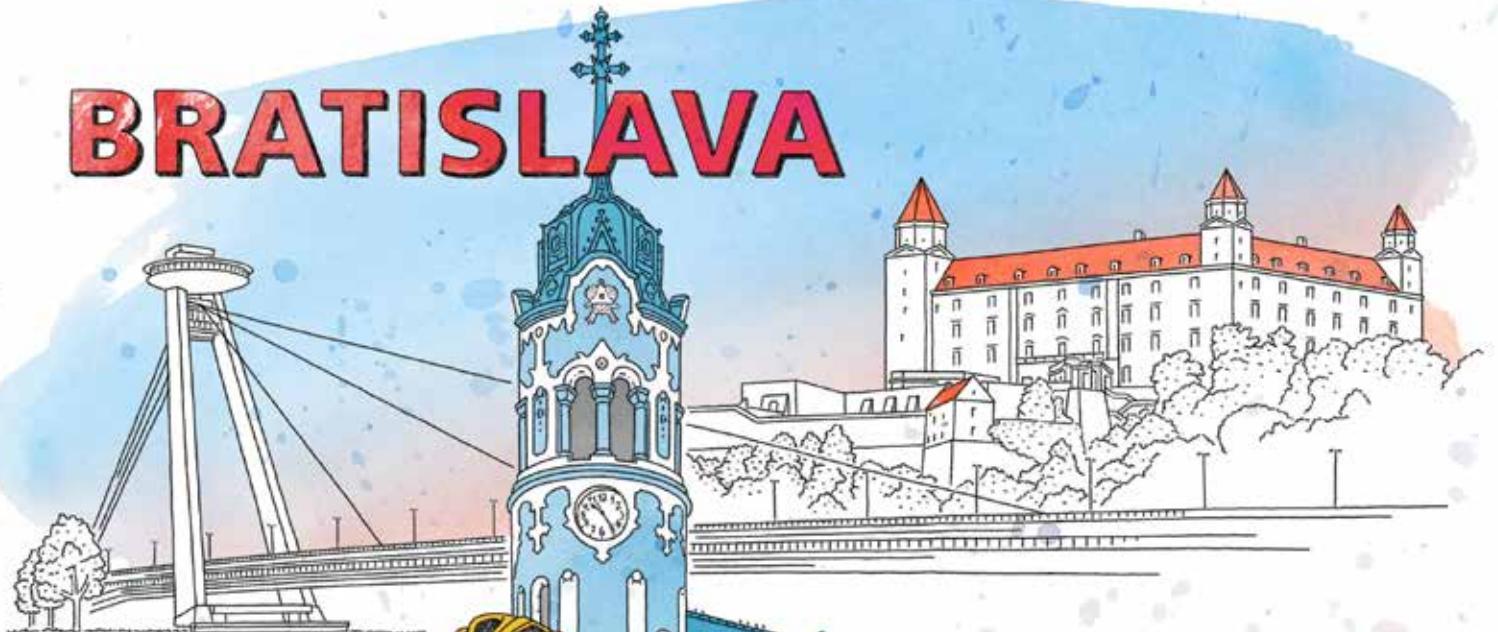


NATIONAL POLICY RECOMMENDATIONS POLAND

No	Recommendation	Status quo description	Proposed policy change description
1	Evaluation of policy coherence	Currently, national laws that concern cycling often contradict local laws that concern cycling.	New laws should prioritize pedestrians, cyclists and public transport. National and local laws should not contradict each other.
2	Parliamentary Bike-Users Group	While the interests of many user groups are represented in parliament, there currently is no representation of cyclists in parliament.	The Parliamentary Bike-Users Group should be reactivated. It should have an active role in law-making processes.
3	Task and budget shift down at the administrative level (all levels)	Currently, tasks are either delegated down the administrative levels towards the municipalities - but without the needed budget assignments - or the higher administrative level "owns" infrastructure on the territory of the lower administrative level resulting in a mismatch in construction standards and modernization/maintenance schedules.	Shifts in responsibilities should be made easy: if a municipality needs to modernise infrastructure that belongs to another administrative level, the modernisation or a transfer of ownership should be made easy. Shifts in responsibilities or new assignments of tasks should be linked with adequate budget positions.
4	Assure the enforcement of laws on air quality and road safety	While the awareness about the influence of air quality and road safety on public health is rising, existing laws on these issues are not enforced sufficiently. This is unfortunate since cyclists are strongly affected by bad air quality and road safety.	Laws concerning road safety and air quality should be implemented properly. Air quality tests should create a solid base for law enforcement.
5	Quality assurance in new cycling infrastructure	Currently cycling infrastructure is of poor quality and quality assurance processes are rare.	A quality assurance process of new cycling infrastructure should be compulsory. Members of the cycling community should be present during these quality checks.
6	Coherence in the infrastructure being built or modernised (local and regional)	Polish roads are mostly owned by the country, voivodeship, county or the municipality. These actors have different goals, standards, budgets and construction timelines which can result in incoherent cycling infrastructure.	We recommend a mandatory harmonization of infrastructure standards, schedules and budgets. A coherent, participatory and multi-level planning and execution process should be assured. This could be done with the help of regional infrastructure coordinators we suggest introducing.
7	Introduction of national biking standards based on good practice of polish cities	Often municipalities either copy biking standards without adapting them to the local and regional context or develop standards from scratch while good practice examples already exist. That is an inefficient way of developing biking standards.	National best practice examples should form national biking standards for cities. While this affects all planning levels this should be done using a bottom-up approach.

No	Recommendation	Status quo description	Proposed policy change description
8	Transparency, information, and education of stakeholders on infrastructure development processes including intervention possibilities. Closest cooperation in public participation processes	The existing public participation processes work and can bring good results. However, project workshops showed that cyclists/infrastructure users do not fully understand the complexity of the processes. This situation results in unrealistic expectations of the cycling community and infrastructure investors are defensive from the start which does not often result in optimal dialogue.	Participation processes should be made as transparent as possible with key intervention points being set and made clear for the stakeholders. All stakeholders and law frameworks should be identified to bring transparency for all user groups.
9	Reducing the conflicts between pedestrians and cyclists	With the growth in cycling infrastructure and popularization of cycling as a transport means new areas of conflicts are created. Shared spaces with intensive streams of pedestrians and crossing bicycles are often perceived as less safe.	During the Cyclurban project effective measures were identified: A clear identification and visible marking of conflict areas between cyclists and pedestrians. The narrowing of the road before potential conflict areas, to reduce the speed of cyclists. A participatory approach to design and implement the developed solutions.
10	Implementing an obligatory urban design standard	The living quality in many areas in Polish cities suffers because urban design standards are not implemented. Currently, a lot of houses are built in a rushed way which results in inadequate infrastructure for pedestrians and cyclists and a lack of local services.	Urban design standards should be developed and implemented. These standards include adequate infrastructure for pedestrians, cyclists and local services.
11	Compulsory education on using the roads as common shared space	Education on cycling is still too limited. The education of car drivers focuses on passing the licence exams rather than on being a responsible road user. Currently, conflicts between road users occur frequently in Poland. Education on cycling is still rare and only pedestrians sometimes receive education on safe road use. The education of car drivers does not focus enough on respectful and responsible driving.	Mandatory workshops on inclusive and gentle mobility should be introduced on all educational levels. The workshops should educate pedestrians, cyclists and car drivers.

BRATISLAVA



GREETINGS FROM BRATISLAVA!

Bratislava is the capital of Slovakia and by far the biggest city of the country. As in most cities in Central Eastern Europe, the share of cycling traffic in Bratislava is relatively low and in relation to other modes of transport almost negligible. Even though many inhabitants still use public transport for their daily commute, the number of private cars in the city still grows rapidly – mainly as a result of rising living standards of the population.

The number of registered cars increased by 83 % between 2000 and 2018. At the same time, awareness for a more sustainable urban development is growing. City officials get more conscious about the potentials of cycling as a climate-friendly, efficient and healthy means of transport that can help to enhance the urban life quality for cyclists and non-cyclists. As a result of this policy shift and increased public pressure, change in the mobility sector is slowly happening and the Cyclurban project with its local partners 'Ideas into Energy' and 'Cyklokoalicia' supported decision-makers and stakeholders on different levels and with a variety of activities, promoting climate-friendly mobility concepts. The Slovakian media also is willing to support cycling and mentioned the Cyclurban project prominently in different publications and broadcasts, even reporting about Cyclurban in the national news at prime time.

What is the most beneficial thing your bicycle gives to you?

Freedom. For me bicycling is about freedom when I want to be short and simple. Go somewhere, stop in the forest, be in my own rhythm and swing.

Jakub Kuruc

Department of Public Communication,
Bratislava-Petržalka



Get to know Bratislava

Located in	Slovakia
Population	approx. 433 000
Population density	1 200 / km ²
Area	368 km ²
Modal split based on national estimates	37,7 % individual automobile transport; 32,6 % public transport; 26,7 % walking; 1,6 % biking
BYPAD-score	1 = ad-hoc approach
Roadwork	800 km urban roads; 50 km motorways
Length of bike paths	110 km
Yearly budget for cycling infrastructure	approx. 500 000 Euros

Nevertheless, cycling in Bratislava can be exhausting which is not only because of the workout a bike ride offers but also due to the underdeveloped cycling infrastructure. Parked vehicles on pedestrian walkways are a common sight. Cycling paths are not always available and even though important progress was made in the past few years (e.g. in December 2019, an update to the Road Traffic Law has been put in the act, which restricts parking on walkways), there is still a lot to be done.

The current modal share of cycling in Slovakia is at approximately 2 -3 % according to estimates by the Ministry of Transport and Construction of the Slovak Republic (MDV SR). Cycling has been experiencing a small renaissance, but the inadequate and dangerous infrastructure neither lives up to the growth of cycling traffic nor the set targets by the MDV SR. The MDV SR

aims at 10% of the modal share for cycling by the year 2020, a goal which was not achieved due to the slow progress recorded over recent years and an ongoing growth of the private car numbers.

What is the most beneficial thing your bicycle gives to you?

I am lucky that my way from home to work is through safe and practically all the way segregated route. My travel to and from work gives me time to think, mostly about work topics:) I feel free on my bike, I can stop anytime when I meet some friend on my way, or turn for another.

Tatiana Kratochvílová
Deputy Mayor of Bratislava and
transport expert



CYCLURBAN NATIONAL WORKSHOP

A big success of the Cyclurban project in Slovakia was the Cyclurban National Workshop. It took place in the premises of the Justi Hall of the Primate's Palace in Bratislava on the 19th of February 2019. Next to the Cyclurban project partners, many representatives of cities and municipalities, policemen from the Presidium of the Police Force, as well as representatives of the Ministry of Transport and Construction of the Slovak Republic (MDV SR), including the National Cycling Coordinator attended the event.

Throughout the whole event, journalists of the Slovak national TV and radio were present. Cyclurban was addressed on the main national TV news of the Slovak Radio and Television (RTVS), through which the Cyclurban project reached many thousands of people in their households. Among other media outputs, Cyclurban also appeared on Radio Slovakia as well as on the local television channel TV Ružinov.

The lectures and the focus groups

The event was divided into two main parts:

Lectures: It is common to hear from best practice examples from frontrunner cycling countries like the Netherlands. But transferring experience from places with a similar climate and a post-communist-history offers a more realistic approach to the implementation of policies in Bratislava. That is why after a strategic analysis of the cycling status quo in Slovakia and Bratislava was presented, best practice examples of cycling policies were shown, featuring guest experts from Warsaw (Poland) and Brno (Czech Republic). Among those best practice examples was the Warsaw campaign called "Cycling May" - a month-long campaign, during which children collected stamps for every day they arrived at school by bike. The "Cycling May" campaign proved to be very effective since not only the children but also their parents were encouraged to bike more often.



Cyclurban national workshop in Slovakia

Focus groups: Within small-scale groups, the National Workshop participants exchanged their expertise on the opportunities and challenges concerning:

- traffic calming
- cycling-friendly intersections
- cycling-friendly school vicinities

- cycling infrastructure connecting municipalities
- facilities for bicycle-parking

According to the participants, the focus groups made it possible to answer questions in detail and to expand one's expert network. Within the focus groups, it was impressive to learn how it is possible to connect small municipalities with each other through biking lanes. Creating a cycling infrastructure that connects municipalities and making that a feasible alternative to other modes of transport is nevertheless challenging which is why different approaches and successful problem solving were discussed.

The event proved how relevant it is to address cyclists' needs in Bratislava, but also in other parts of Slovakia. While the national policy recommendations, discussed at the Cyclurban National Workshop, are meaningful guidance, their successful implementation into practice is very relevant.



Excursion with media coverage during the workshop

Thanks to the success of the Cyclurban project in Slovakia, our partners 'Cyclokoalicia' and 'Ideas into Energy' are both part of the follow-up project 'Cyclurban+', which started in October 2019 and is also financed by the European Climate Initiative (EUKI). With this follow up project, the implementation of cycling policies can be pushed further as results from the first project can be transferred into action.

HOW GOOD IS CYCLING POLICY IN BRATISLAVA AND HOW CAN IT BE IMPROVED?

Based on the Bicycle Policy Audit (BYPAD)

Together, the Cyclurban partner organisation 'Cyklokoalicia' and the City of Bratislava launched a Bicycle Policy Audit (BYPAD) in Bratislava. As one of the first steps for the BYPAD, a questionnaire was filled in by stakeholders like municipal traffic planners, members of NGO's, bike users and local politicians. Their responses provided ideas regarding cycling policy in the fields of planning, monitoring and taking actions. The results of the questionnaire were evaluated, and a BYPAD meeting, as well as a BYPAD action plan meeting, took place. In order to have a shared, first-hand experience of what biking in Bratislava is like, the stakeholders also went cycling through their city.

The audit showed that Bratislava does have policies and strategies that promote cycling, but they are not being executed sufficiently. Furthermore, cycling policy in Bratislava is mainly limited to reactive problem-solving. Like many cities, Bratislava struggles with a lack of officials that actively engage in issues concerning cycling.

The BYPAD action plan includes the development of good quality cycling infrastructure as well as the promotion of cycling. Besides the development of good quality cycling infrastructure, partnerships and cooperation (e.g. with schools, universities, retailers, employers, insurance groups) are a great way to boost cycling and offer a win-win situation for both sides. This will include promotional campaigns with local VIP's like actors or with companies that can encourage their employees and customers to cycle.

DEVELOPMENT OF NATIONAL POLICY RECOMMENDATIONS FOR SLOVAKIA

The proposed National Policy Recommendations (NPRs) are measures which aim to support the further growth of cycling at relatively low implementation costs. The recommendations represent low barrier measures with the possibility of immediate and medium-term implementation, which are directed towards different stakeholders, and which mitigate identified barriers and focus on a few priority areas.

The NPRs have been developed by the Slovakian project partners together with stakeholders such as city planners, architects, municipal experts, members of the police, cyclists, local politicians and others. The stakeholders were invited to discuss appropriate measures that function as reasonable and low threshold steps to successfully enhance cycling in Slovakia.

How would your dream city look like regarding traffic/mobility?

It would be a town designed for people, instead of cars. Safe and nice routes for cyclists and pedestrians combined with reliable public transportation would be the main way of transportation. A lot of trees would provide shade making it possible to sit and talk in nice public spots.

Ján Roháč

Programme Manager, Ekopolis Foundation

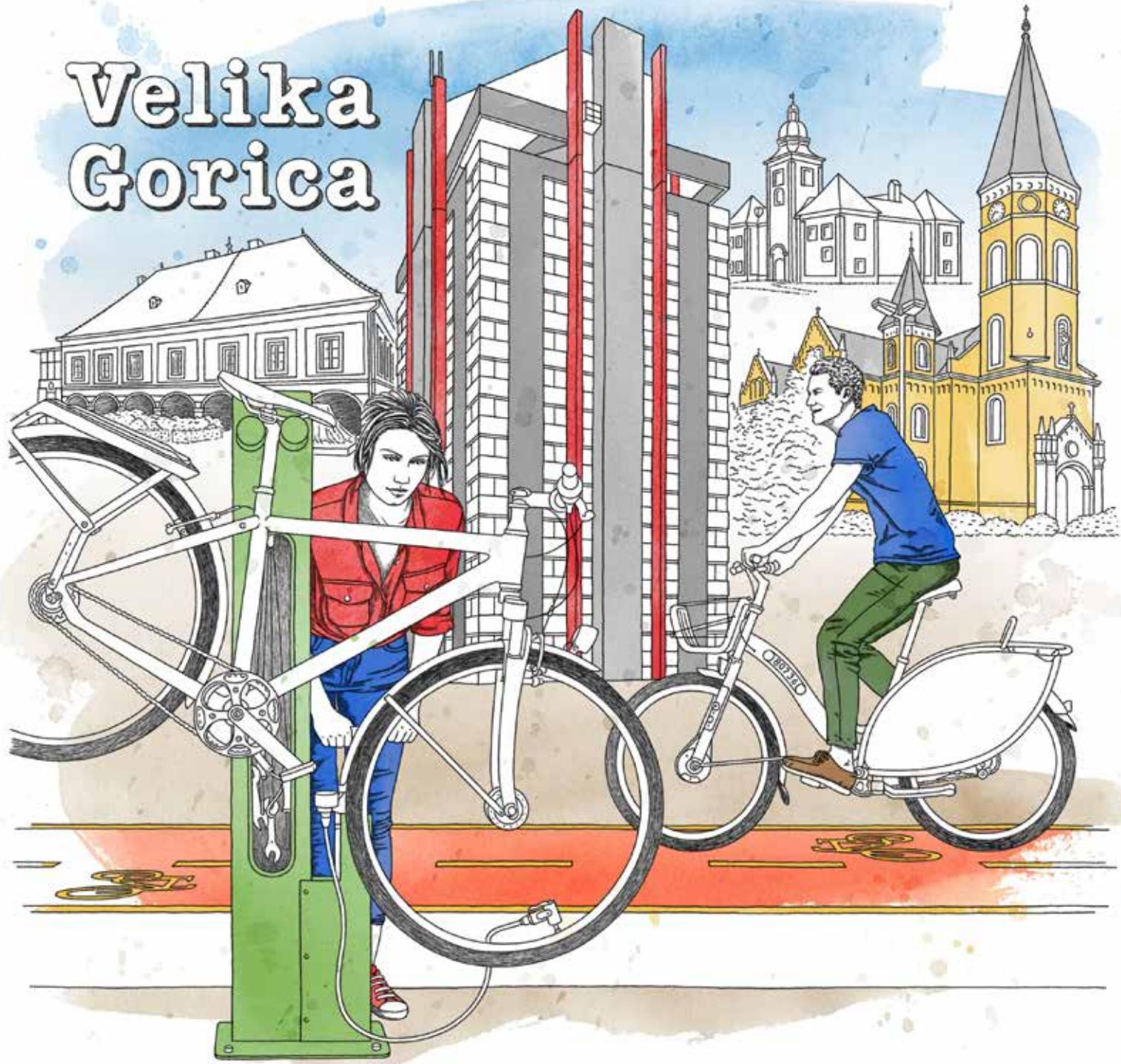


NATIONAL POLICY RECOMMENDATIONS SLOVAKIA

No	Recommendation	Status quo description	Proposed policy change description
1	Obligatory Establishment of Bicycle Parking Spaces in New Residential Buildings	Currently, there is no legislative obligation for building contractors to set up bicycle rooms or consider any other requirements of cyclists.	Introduction of a legal and enforceable obligation on establishing rooms designated for parking and storing bicycles in new residential buildings. It is necessary to define the spatial requirements of the designated spaces depending on the number of housing units and their size as well as other technical specifications.
2	Better Visual Labelling of 30 km/h Zones in Towns and Municipalities	30 km/h zones lead to a reduced risk of threatening more vulnerable road users and reduce noise and emissions. One major reason drivers do not respect the 30 km/h zones is the insufficient visibility of the vertical road signs.	The proposed solution is to prioritise the combination of the vertical traffic signs with clear and uniformed horizontal ones.

No	Recommendation	Status quo description	Proposed policy change description
3	Enactment of the Mandatory min. 1.5 m Lateral Distance of the Overtaking Vehicle from Bicycle Riders	Cycling at the right edge of the road is currently not safe enough. Although the Police of the Slovak Republic recommends respecting the safe lateral distance, it is often not respected by drivers when overtaking cyclists.	The incorporation of mandatory min. 1.5 m lateral distance to the Act No. 8/2009 Coll. on Road Traffic.
4	Establishment of Certified Trainers in the Field of Cycling Transport	There is no systematic and effective teaching of children and young people about safe bicycle transport at primary and secondary schools.	Establishment of a certified safety training for school children. Teachers at primary and secondary schools, cycling coordinators or members of interest groups involved in cycling can become certified trainers. Systematic implementation of this measure will be ensured by its inclusion in the curriculum of schools. The certification will be carried out by the Slovak Police whose task is to ensure the safety and smooth flow of road traffic as well as to have up-to-date knowledge on cycling infrastructure.
5	Systematic Collection of Data on Cycling in Towns and Municipalities	In Slovakia, there is no systematic collection of data on cycling that allows for better planning of cycling infrastructure and other measures. For example, 2-3% of national cycling share is only an approximate value.	Data collection in case of cycling transport can be realised through financially low-cost applications. The authorities should be better informed about these possibilities. Particularly relevant is the form of point counters or representative mobility surveys among residents.
6	Training of Public Transport Drivers on the Needs of More Vulnerable Road Users	There is no systematic training and further education of public transport drivers focusing solely on the needs of more vulnerable road users now.	Systematic training and further education of public transport drivers on the needs of more vulnerable road users would help to understand the perspective of cyclists in road traffic. The Association of Public Transport Operators in the City Agglomerations of the Slovak Republic should be involved here.
7	Incorporation of the Cycling Transport Subject into the Public Radio and TV Programme Structure.	National campaigns that promote the development of cycling transport have limited outreach and therefore a weak impact.	Direct cooperation between the Ministry of Transport and the Ministry of Culture with public tv- and radio stations is highly needed to identify possibilities of incorporating cycling into the programme structure (children education programmes and programmes for a wide audience, etc.)

Velika Gorica



HELLO FROM VELIKA GORICA!

The city of Velika Gorica is part of Zagreb County and its name means "big mountain". The city has 64,000 inhabitants and covers an area of 328 km². Its road network is 665 km long and approximately 5000 cars travel through it daily.

The City of Velika Gorica is one of two Croatian partners and one of three city partners in the Cyclurban project (with Warsaw and Tartu). Taking part in European climate projects, the city is actively trying to reduce its CO₂ emissions and take necessary steps towards becoming a sustainable, climate-friendly municipality.

Currently, around 80 % of its current cycling infrastructure consists of mixed car-bike and 20 % of separated cycling paths. Future planning includes the enhancement of electric-vehicles (buses, cars), electricity charging stations and a higher share of integrated travelling.

But there is still a lot of work to do. Velika Gorica is actively supporting cycling, but also less climate-

What is the most beneficial thing your bicycle gives to you?

Changing perspective. From motor-powered vehicles to non-motorized traffic. The pleasure of riding a bike. Childhood memories. A sense of freedom. Looking at everyday life from a different perspective. Ultimately, fewer cars on the roads, less crowded trams and buses.

Cycling for health and fitness, financial benefit, city experience from a new perspective, and fun. Reduction of CO₂ emissions, lower noise in the city and saving the earth, and cars reduction in the city and lowering the harmful effects for people and the environment.

Dajana Marin

Ministry of Tourism, Head of the department for rural and other tourism types



Get to know Velika Gorica

Located in	Croatia
Population	approx. 64 000
Population density	190 / km ²
Area	329 km ²
Modal split based on national estimates	67,3 % individual automobile transport; 30,4 % public transport; 2,3 % biking
BYPAD-score	1,5 = ad-hoc approach
Roadwork	598 km urban roads; 25 km highways
Length of bike paths	40 km
Yearly budget for cycling infrastructure	no specific budget line, 7 500 000 € for road building

friendly development is planned, such as the expansion of parking lots. It was also found in the project that cycling planning is not embodied in urban planning enough. Consequently, the strategic part of the work in the Cyclurban project included developing a vision for 2030 with suggested measures for its attainment. This vision incorporates reduced energy consumption, an increase of economic sustainability, and reduction of car traffic. This will be assessed by quantitative indicators, e.g. the modal share and the length of the cycling network. Future scenarios and recommendations for the cycling development include infrastructure development, shared spaces, targeted financing, educational activities and cycling related services.

SEMINAR: CYCLING TO REACH THE GOAL - A BETTER CLIMATE FOR EVERYONE

On the 26th of November 2019 the seminar „Cycling to reach the goal – a better climate for everyone“ was held in the City Hall of Velika Gorica. Organized by the Cyclurban project partner “Society for Sustainable Development (DOOR)” from Zagreb, this seminar put emphasis on the development of bicycle traffic in Velika Gorica.

The seminar started with welcoming speeches by Mr Domagoj Ilečić, Head of the city's Administrative Department for Enterprise, Investments and Funds of the European Union, and Mr Matija Majdak from the Administrative Department for Utilities and Transport.

The Cyclurban project was presented by Ana Tešija from DOOR. Petra Grgasović, an external expert, presented the proposal of the document „Analysis and Recommendations for the Development of Cycling in Velika Gorica“. The presented analysis and proposal deals with the existing cycling infrastructure in Velika Gorica and provides guidelines for its improvement with the goal to increase the bicycles traffic.

„The analysis was of a general nature so that it rests on the existing cycle paths in the city. We mainly analyzed what should be continued with the cycling infrastructure and how educational and institutional-organizational aspects could be improved. For example, the introduction of a sustainable transport team in the city area and the education of all road users were proposed. The recommendations will be incorporated into the Sustainable Transportation Plan in Velika Gorica.“, said Daniel Rodik, senior expert at DOOR and Cyclurban project manager for Croatia.

There was a great interest of the participants in the analysis of the current situation and in the possibilities of improving the cycling network in Velika Gorica. The discussion contributed to that the present

representatives of the Administrative Department for Utilities and Transport received quality guidance for the development of bicycle traffic. As the Administrative Department is currently dealing with traffic in general, they recognized the need to establish a Velika Gorica Cycle Unit. We consider this as a direct result of the Cyclurban activities.

“The project is about improving local transport policies, focusing on a stronger representation of bicycle traffic in cities. According to the experience from many European cities, cycling combined with efficient public transport in cities provides more pedestrian space and thus significantly improves the quality of life, reduces emissions from motorized vehicles and mitigates climate change.”, added Rodik.



The results of the working group on the seminar were drafted and the national policy recommendations were discussed. The participants from public authorities, civil society organizations and the business sector commented on the draft and voted for particular recommendations. This draft is wrapped up by DOOR and sent to the National coordination body for the development of cyclotourism, which is responsible for cycling transport. The finalized national policy recommendations can be found below.

HOW GOOD IS CYCLING POLICY IN CITY AND HOW CAN IT BE IMPROVED?

Based on the Bicycle Policy Audit (BYPAD)

BYPAD stands for Bicycle Policy Audit. It is an instrument enabling authorities to evaluate and improve the quality of their cycling policy. BYPAD analyses the strengths and weaknesses in current policy and gives clear indications for future improvement. Measures and areas of action necessary to improve cycling policy can be derived directly from the audit results.

The overall BYPAD-score for the City of Velika Gorica is 1.5 (38.1 %), which means an “ad-hoc approach” in the city’s cycling policy.

The first step was making a decision on who the relevant stakeholders from the City of Velika Gorica would be, and once there was a list approved by the city’s administration officer, the auditor took the next step by getting in touch with them via email and phone.

The BYPAD-questionnaire was delivered to the relevant stakeholders in a printed version. Upon the received responses from citizens’ representatives, administration officers and decision-makers, the BYPAD meeting was summoned by the auditor in order to find the common ground for all parties involved and to decide on a realistic score for the city. There were 10 participants at the meeting, including representatives from the city’s transport department and EU funds department. There was a detailed discussion for each module and its related questions, and the overall score was finally set to 1.5 (i.e. 38.1 %).

As this score is quite low, representing the “ad-hoc approach”, the stakeholders realized that there is still much to be done in the city’s existing cycling policy. As the first module to be tackled following this score, they agreed on the Planning - Leadership & Coordination. Within the scope of this module, following measures were put on the list of goals and priorities: raising awareness and going after the political will,

employment of at least one person (to start with) in charge of coordination of the cycling department (delivering a systematic approach), diversification of the city’s annual budget aiming to allocate a certain amount to the cycling department and its needs. By listing these goals, the estimated time to reach them was set to one to two years.

This was the first BYPAD ever done in Croatia – setting the City of Velika Gorica on the map as the first to-be-certified Croatian city by the Bicycle Policy Audit.



DEVELOPMENT OF NATIONAL POLICY RECOMMENDATIONS FOR CROATIA

The proposed National Policy Recommendations (NPR) are measures that aim to support the further growth of cycling at relatively low implementation costs. The recommendations represent measures with the possibility of their immediate and medium-term implementation, which are directed towards different stakeholders, and which mitigate identified barriers and focus on a few priority areas.

The NPR has been developed by the Croatian project partners together with stakeholders such as city planners, architects, municipal experts, members of

the police, cyclists, local politicians and others. The stakeholders were invited to discuss appropriate measures that function as reasonable and low threshold steps to successfully enhance cycling in Croatia.

What do you think is the biggest problem in your city regarding the development of cycling?

There is a lack of driving culture, patience and tolerance of the traffic participants. Incoherency and illogicality of the cycling paths network that in many cases do not lead anywhere. Marking cycling paths on sidewalks in the inner zone (crossing the terraces of cafes – a danger for everyone!). Misunderstanding of the competent services to better integrate cycling into city traffic and to improve or re-plan the city's cycling transversal network (north-south and east-west) with greater advantage and bike spaces on these routes. The sidewalk space is still being reduced in the reconstruction of city streets, while the one for cars (motorized traffic) is increasing, and at the same time cycling paths or lanes are still not in plans. Lack of education of children, youth and adults in traffic – pedestrians, drivers and cyclists, lack of campaigns on cycling benefits.

Lidija Mišćin

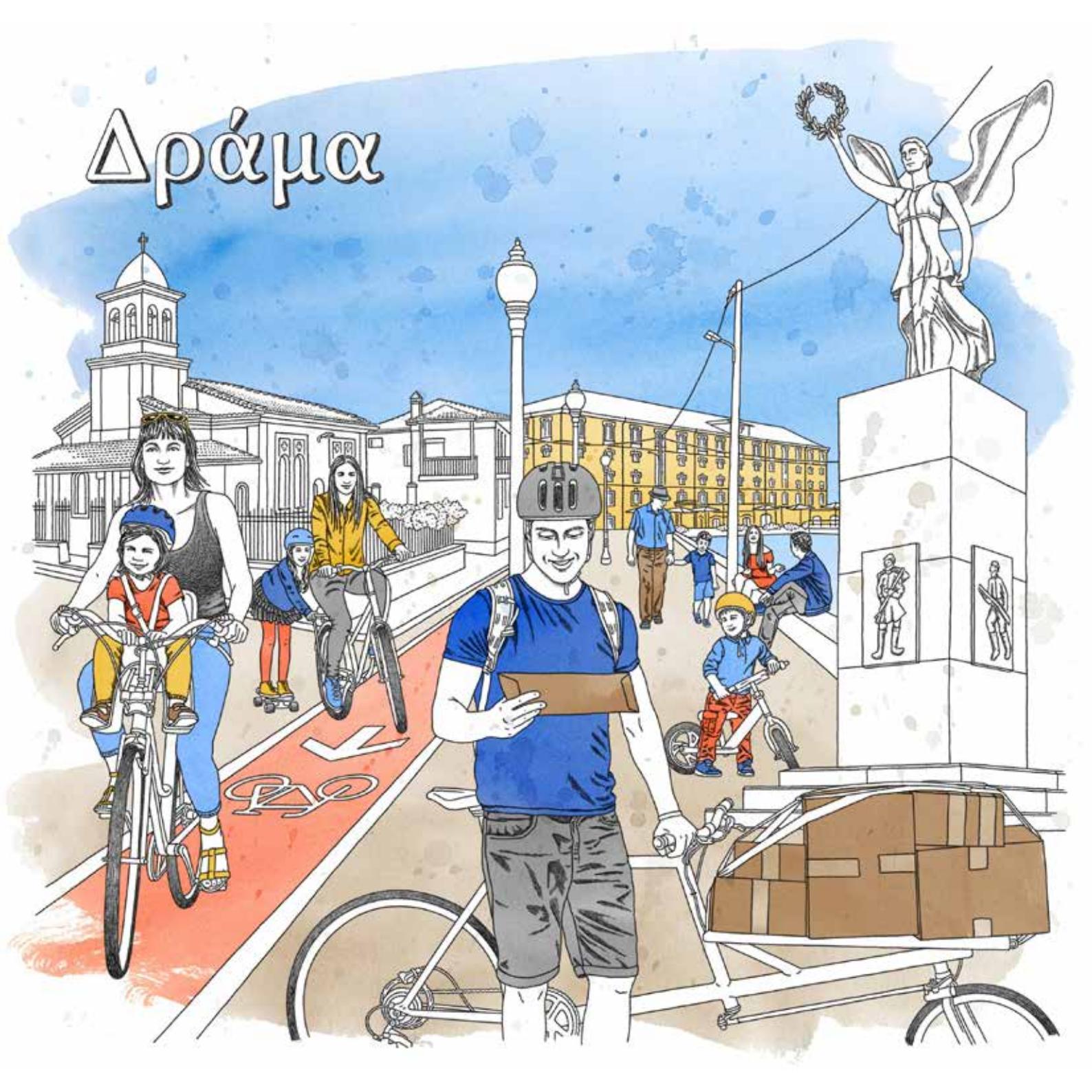
CSO "Ruralni tandem", Head of the coordination body for cyclotourism in Croatia



NATIONAL POLICY RECOMMENDATIONS CROATIA

No	Recommendation	Status quo description	Proposed policy change description
1	Development of Sustainable Urban Mobility Plans (SUMPs) or equivalents on local administration (LA) level for medium/large cities	In the EU Transport Development Strategy 2017-2030 SUMPs are introduced as a sustainable transport planning tool. In the National Energy and Climate Plan 2021-2030, the SUMP is mentioned as an obligation for larger cities (35,000) and all counties.	Mandatory development of SUMP or an equivalent of SUMP obligatory via law for counties and large cities.
2	Minimum road speed limit	According to the Law on road safety Article 51, the speed limit on the road with normal traffic conditions must not be limited below 40 km/h	Change the law on road safety, Article 51, to 30 instead of 40 km/h speed minimum
3	Regulation of non-motorized traffic in pedestrian zones	According to the Law on road safety, "pedestrian zone" defines a traffic area primarily for pedestrians, restricted for motorized vehicles, except for those with special approval. The law does not regulate the traffic of non—motorized vehicles in pedestrian zones.	Introduce traffic regulation measures in the pedestrian zone such as the separation of cycling and pedestrian areas particular parts and clear information that cycling transport (e-bikes) is excluded from the restrictions for motorized vehicles. Also, we recommend limiting the speed of bicycles in pedestrian areas.
4	National coordination body for urban cycling/non-motorized transport/sustainable transport	On the national level, there is a coordination body for the development of cycle tourism in the domain of the Ministry of Tourism.	Establish a national coordination body for urban cycling or extend the existing coordination body for cycle tourism to regard cycling as an important means of everyday transport.
5	Public tenders for bike-sharing systems and public cycling infrastructure	The Environmental Protection and Energy Efficiency Fund (EPEEF) is responsible for the funding of urban mobility projects.	Release public tenders for bike-sharing systems and public cycling infrastructure

Δράμα



KALIMERA, DRAMA!

Drama is a city in northern Greece with a population of roughly 60 000 residents. Built since the ancient classical era and further expanded during the Ottoman Empire, the city has a complex urban form with unregulated spaces and a street geometry which is not suitable for today's car traffic. Despite this fact mobility in Drama is very car-oriented, as is typical for Greek cities. Only a few streets have been pedestrianized in the city centre, while recent policies promote traffic restrictions, access regulations and additional bicycle tracks.

The public transport system in Drama is organized with a network of bus lines that connect the centre with the neighbouring settlements. The city has a limited network of bike infrastructure that was built in 2013 and provides cyclists with the opportunity to move around relatively safely to certain destinations. The cycling network contains for example routes that connect educational units with sports centres and public spaces.

The city's surface is divided into three sections with different forms and attributes; a) the historic centre with narrow streets, small houses and arbitrary built structures; b) several areas located in the outskirts of the city centre, which have been recently reconstructed; and c) the southeast suburbs which were developed following the grid plan system with

What do you think is the biggest problem in your city regarding the development of cycling?

The absence of urban planning, the existence of cars in the city's centre and the lack of road safety for cyclists.

*Ekaterini Iosifidou
Municipal Employee*



Get to know Drama

Located in	Greece
Population	approx. 60 000
Population density	70 / km ²
Area	840 km ²
Modal split based on national estimates	65,9 % individual automobile transport; 3,4 % public transport; 23,9 % walking 6,8 % biking
Roadwork	265 km urban roads
Length of bike paths	2,45 km

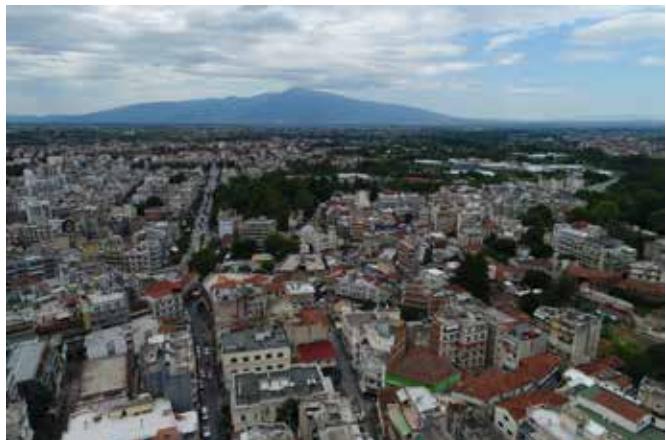
low-density housing. Within the outline of the city plan, there are large green spaces, some of them located in the historic centre (St. Barbara's Park and the Municipal Garden).

The Cyclurban project started in Drama after the completion of the Sustainable Urban Mobility Plan (SUMP) that was developed for the city and aimed at further implementing the outlined measures for a more sustainable modal share in the transport system. One main objective of the SUMP and the Cyclurban project is, therefore, the extension of the cycling network and the overall promotion of cycling as well as the protection of residential areas from motorized through-traffic. The project's objectives were extensively discussed with citizens and stakeholders in Drama and therefore have the public consent for implementation; hence the municipality now is searching for funds to implement the various actions discussed and built the needed infrastructure.

Compared to other European countries the integration of cycling into the Greek transport system is starting late. This delay is due to the difficult geometric characteristics of most urban Greek streets but also

a result of a strong car and motorcycle orientation in mobility behaviour. As a result, the concern of Greek decision-makers for active mobility is insufficient. In most cities, pedestrians, as well as cyclists, have to cope with the insufficient and often blocked space that is left for them by parking cars and congested roads. Additionally, the heat and the strong inclinations in many Greek cities make motorcycles more attractive than bicycles. While E-bikes would be an environmentally friendly alternative to motorcycles, they have not yet become a popular alternative.

Nevertheless, the interest in cycling has increased over the past years. This is highly related to the fact that, since 2018, over 180 Greek cities have developed and implemented Sustainable Urban Mobility Plans (SUMPs). SUMPs have been designed to tackle transport-related greenhouse gas emissions in urban areas more efficiently, which is why one important target of the SUMP's is the promotion of cycling. The Cyclurban project has made a significant contribution to the debate on cycling in Greece by addressing the national as well as the local level continuously highlighting the importance of sustainable mobility in workshops and consultation with ministries, municipalities and local stakeholders.



THE PARTNERS MEETING

One key responsibility of Ecocity was the organisation of the 2nd Cyclurban partners meeting, that took place in May 2018 at the campus of National Technical University of Athens. Next to receiving a presentation by Professor Thanos Vlastos on the status of cycling in Greece, the participants identified and discussed the characteristics of Athens morphology in a field visit and got a first-hand experience of the street situation cyclists and pedestrians face in downtown Athens.

NATIONAL WORKSHOP IN ATHENS

The workshop was organized by the National Technical University of Athens (NTUA) and the Ministry of Environment and Energy and took place on the 23rd of October 2019 in Athens. One of the key topics of the workshop was the announcement of the launch of the first national cycling strategy in Greece, which will be developed in full by the beginning of 2020 - with support of the Cyclurban partner NTUA.

Ecocity, one of the three Greek Cyclurban partners, presented the results of the route choice survey that was developed by Cyclurban partner DLR and was distributed in all partner countries as part of the activities in the Cyclurban project. The survey in Greece was coordinated by Ecocity and aimed to investigate the route choice preferences of cyclists. More specifically, a stated preference analysis took place in a sample of 312 participants where different cyclist scenarios were assessed. Those included several parameters such as travel time, road type, the existence of cycling paths, the area type and the question of whether there was a speed limit of 30km/h or 50km/h.

Results indicate that dedicated bike infrastructure along main streets as well as good surface quality is highly beneficial to road users. Thereby, the utility increases with the level of separation. Protected bike lanes are most desired. Moreover, the socio-

demographic interactions implemented through the analysis show two fundamental trends. First, low-speed limits (living street and cycle street) are much more



beneficial for those travelling with children. Second, the utility of a smooth surface is much lower for people stating to cycle only rarely (less than weekly). Finally, another key finding is that higher travel time is linked with significantly less disutility in Greek cyclists indicating that bicycle is still used in Greece for smaller distances.

SURVEY

Cycling initiatives in Greece still are fragmentary and have barely inspired cities to implement policies that reduce car dependence and improve public spaces. Cyclurban aims to assist cities in setting up the needed infrastructure for bicycle circulation and parking and to create road conditions that welcome cyclists. This includes lower speed limits and car-restricting policies in city centres and neighbourhoods, which allow cyclists, pedestrians and all vulnerable road users to move and socially commute pleasantly and safely.

This is also reflected in the National Cycling Strategy, with the overall objective to make cities sustainable, attractive to residents as well as visitors, and healthier by reducing traffic emissions.

To find out how these goals could be reached, a survey was developed within the frame of the Cyclurban project. In addition to the assessment of cycling in Drama, it was also used to investigate the current status in several other Greek municipalities. The survey examined multiple sectors such as infrastructure, internal organisation and planning, policy (current and expected) as well as communication and dissemination actions.

The results indicated that the infrastructure in many Greek municipalities has shortcomings. These shortcomings are for instance the absence of bike lanes, incomplete cycling networks, and missing signals. The survey's results furthermore indicate that Greek municipalities lack specialized transport departments,

How would your dream city look like regarding traffic/mobility?

A city more friendly and attractive to cyclists, with less environmental pollution, an extensive and coherent cycling network throughout the city. And finally: a protected historic centre by restricting traffic and promoting the existing cultural, natural and architectural heritage.

Which first steps must be taken in your city now to make your mobility vision happen?

Implementing the Sustainable Urban Mobility Plan for the Municipality of Drama is the key to success and a step-by-step achievement of the goals of the Municipality's authority.

Michael Tassou
Deputy Mayor of Drama



sustainable mobility sections and educated personnel. These findings that referred to the local scale concern also the general national policies that are almost indifferent in the field of cycling and future urban mobility. Another important finding is that local-scale projects such as Cyclurban can be used as drivers for the climate change mitigation policy development.

DEVELOPMENT OF NATIONAL POLICY RECOMMENDATIONS FOR GREECE

The proposed National Policy Recommendations (NPR) are measures, which aim to support the further growth of cycling at relatively low implementation costs. The recommendations represent measures with the possibility of their immediate and medium-term implementation, which are directed towards different

stakeholders, and which mitigate identified barriers and focus on a few priority areas.

The NPR have been developed by the Greek project partners together with stakeholders such as city planners, architects, municipal experts, members of the police, cyclists, local politicians and others. The stakeholders were invited to discuss appropriate measures that function as reasonable and low threshold steps to successfully enhance cycling in Greece.

NATIONAL POLICY RECOMMENDATIONS GREECE

No	Recommendation	Status quo description	Proposed policy change description
1	Low-cost interventions to ensure the nationwide coverage of, for instance, signs indicating roads that are shared by bikes and cars	Cycling infrastructure in Greek cities is often inadequate. Frequently, important elements of safe cycling, for instance, horizontal markings are missing on urban roads. The cyclist is free to use every road, except for main urban arteries.	Horizontal markings and traffic signs on roads that are shared by bikes and cars need to be added in all Greek cities. Also, existing rural roads will be utilized, to connect cities and consequently the planned networks.
2	Traffic calmed streets with a 30 km/h limit	Traffic calming zones are observed in very few Greek cities. The speed limit in the majority of urban roads in Greece is 50 km/h. Roads with speed limit 30 km/h exist only around schools and only in few Greek cities.	Introduce traffic-calmed streets with a 30 km/h speed limit. Within traffic-calmed streets, the traffic lanes should be narrowed, and bulb-outs and pitch-points should be added. To increase cycling and walking and decrease car traffic, some parking space should be reduced to give room.
3	Improve the conditions of sidewalks	The overall condition of many Greek sidewalks discourages people to walk. Only 20 % of Greek sidewalks have the minimum width according to recently imposed guidelines (a width broader than 2,10 m). The mean width of sidewalks in Greek cities is only 1,50 m. Also, sidewalks are often full of obstacles, which are a real threat to pedestrians.	Narrow traffic lanes to give more space to pedestrians and restrict on-street-parking. Furthermore, curb-ramps should be constructed, and obstacles must be removed from sidewalks.
4	Promote measures that facilitate the combined use of public transport and bikes	Intermodal trips that include cycling account for less than 1% of the total daily trips in Greek cities. On trains, bikes are only allowed in one wagon, which discourages a combined use of public transport and bikes.	Increase the cooperation between local authorities and transport operators to develop a holistic approach for the transport system.
5	Set standards to promote the shared use of streets by cars and bicycles. Move to new, innovative and advanced standards where streets are shared by pedestrians, bicycles and cars	There is no legislation for shared urban space in Greece. Sharing the road is often the only solution as the necessary space for cycling infrastructure according to the Greek guidelines often does not exist.	A new national cycling policy must attempt to open a new dialogue about the general traffic guidelines. Many of the standards have to be reviewed by taking into account the technological changes and the insufficient space in Greek city centres.
6	Improved Mobility management which includes measures that encourage sustainable mobility	The government and municipalities do not offer financial incentives to cycling-friendly companies. Only a few companies in Greece can offer their employees benefits for cycling to work.	A new national cycling policy should foresee a set of economic benefits for cycling-friendly companies.

No	Recommendation	Status quo description	Proposed policy change description
7	Provisions for new means of transport such as e-scooters	The current legislation does not contain adequate guidelines and traffic rules for new mobility modes such as e-scooters.	New means of mobility such as e-scooters, should be able to share the roads with the motorized traffic. All traffic participants should be obliged to know the traffic rules well to safely share the streets with other vehicles.
8	Education of staff in municipalities and regions	Currently, cycling is not considered as part of the solution to traffic congestion problems. Few people in the Municipal Authorities' are aware of the potentials of sustainable mobility and have the qualifications to initialize a successful mobility change.	Workshops and seminars should educate the staff of municipalities and regions on the positive effects of sustainable mobility and teach the know-how to implement sustainable mobility change.
9	Make municipalities responsible for mitigating the negative effects of climate change and track the implementation progress of sustainable mobility policies	Currently, Greek politicians and the staff of Greek municipalities and regions are unaware of the challenges resulting from climate change. No one is made responsible for mitigating the negative effects of climate change or tracking the implementation progress of sustainable mobility policies.	Establish a sustainable mobility bureau in each municipality and region of Greece. These bureaus will deal with measures reversing the negative effects of climate change. They will also track the implementation progress of sustainable mobility policies.
10	Allocation of funding for the enhancement of cycling and other sustainable mobility modes	Regions and municipalities tend to invest more money into measures that increase the road network capacity and the number of parking lots, than into measures that are related to sustainable mobility.	The amount of money that municipalities spend in measures that enhance cycling and sustainable mobility must be increased.
11	School campaigns to educate students systematically and continuously, to cultivate a more sustainable way of transport and lifestyle in general.	Greek students barely cycle to school, as parents do not consider cycling to be safe. In school educational programmes on cycling or sustainability are rare.	To encourage students to cycle, a course for schools should be implemented. It should be based on scientific knowledge about sustainability, especially on sustainable mobility.

