

**GRADOVI
ZA KLIMATSKU
NEUTRALNOST**
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Sustainable mobility in the Municipality of Borovnica

How to approach sustainable mobility in
a small (semi) rural areas?

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Borovnica



Mestna občina Ljubljana
City of Ljubljana



Federal Ministry
for Economic Affairs
and Climate Action



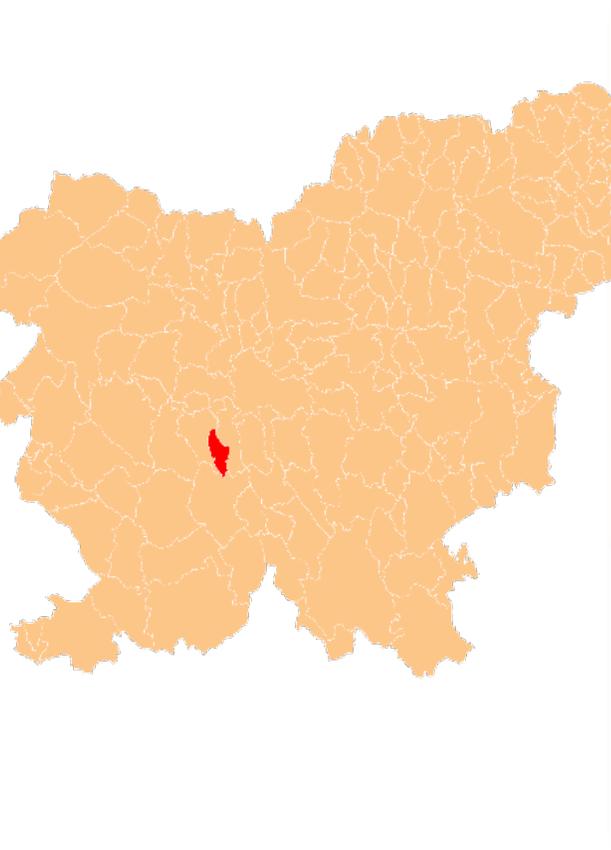
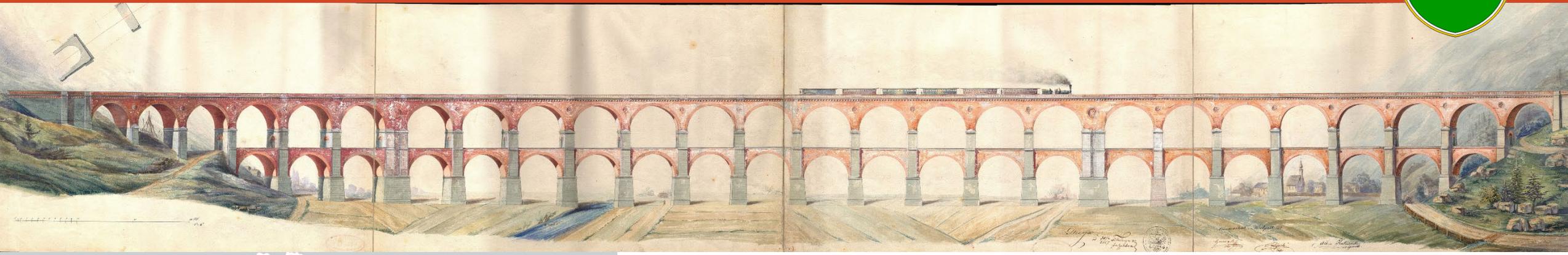
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Where we are?





Municipality of Borovnica – basic data

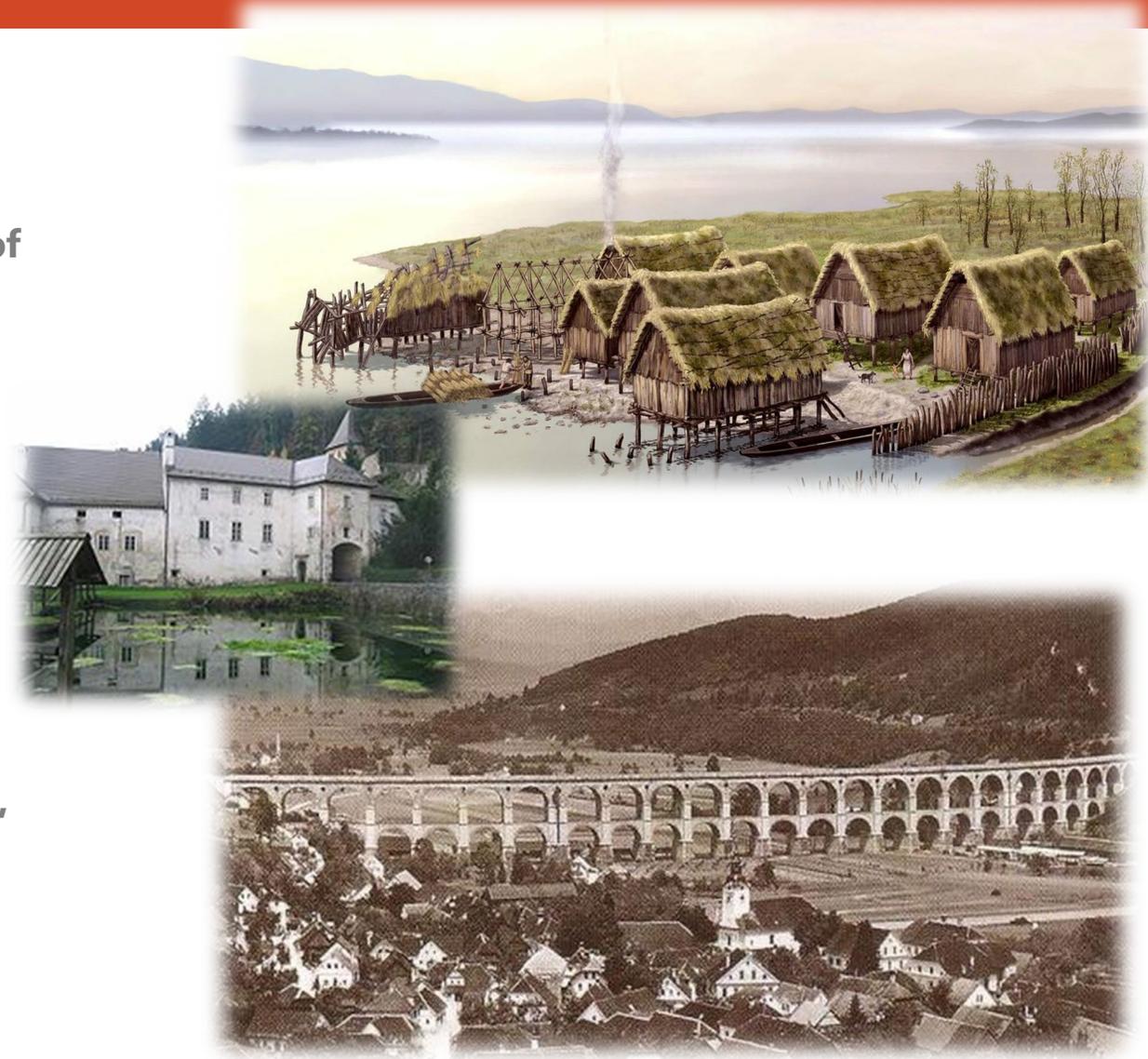
- **Area: 42 km²; 4.700 inhabitants**
- Central settlement: **Borovnica (2.500 inhab.)**, 11 small settlements
- **Borovnica is situated 20 km SW from Ljubljana on the junction of Ljubljana marshes (regional park) and high Carst plateau of Menišija and Krim (homeland of bears, wolfs and lynx) and characterised by high biodiversity and quality of life** in terms of outdoor activities.
- **Municipality is situated on EU railway corridor nu. 5 Baltic – Adriatic and historic railway Vienna – Trieste and nearby road corridor nu. 5 – 10 km from motorway Koper/Trieste – Ljubljana.**



Short history of the area – I



- 3.500 b. C. – 1.000 b. C.: **pillar dwellings** cultures.
- 300 a. D. : **Claustra Alpim Iuliarium**: defensive wall system of late Roman Empire.
- 12th century: establishment of **Bistra/ Freudenthal Cysterian monastery** 5 km from Borovnica.
- 1849 – gains status of a **municipality** – 200 inhabitants
- 1850 – 1856 – construction of **large railway viaduct** – the largest two rail viaduct at its time - increase of population to approx. 2.000.
- 1860 – 1918: **modernisation period** - parish, school, library, (wood) crafts and industry, cultural, sport and tourist associations.





Short history of the area – II (1918 - 2000)

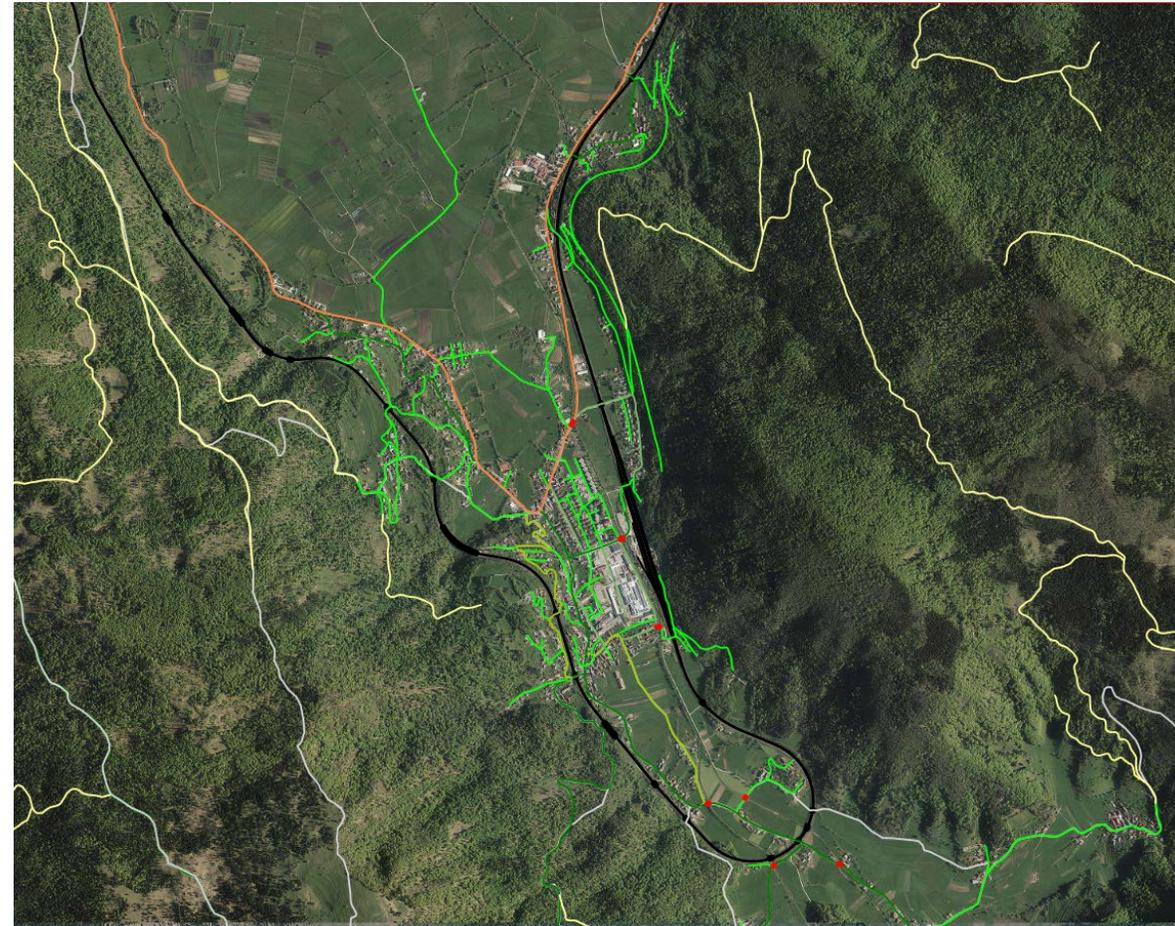
- **1918 – 1941:** due to post WWI geopolitical situation the railway Vienna – Trieste lost its international significance. Borovnica is **situated on dead-end of railway network of the Kingdom of Yugoslavia**. The **viaduct suffers from structural damaged** caused by water seepage from above and from humming of the oak pillars due to the draining of the marshes.
- **1941 – 1945:** **Demolition of the railway viaduct in several stages, heavy bombardment of the settlement.**
- **1947 –** new railway replaces the viaduct, reconstruction of the village.
- **1950ies – 1980ies:** **large scale wood processing industry, increase of population** due to arrival of immigrant workers from the other parts of Yugoslavia, cultivation of Oregon blueberries **on the marshes.**
- **1990ies –** decline and collapse of wood processing industry, re-gaining of the status of municipality in 1994.



Transport and traffic in the Municipality of Borovnica



- **Road regional transport network:** near but not on the main road corridor, narrow and poor quality roads to Ljubljana and Vrhnika, relatively long travel times
- **Local traffic situation:** narrow and poor quality local roads, bottleneck in the old centre of Borovnica, no sidewalks and cycling paths, low safety level,
- **Railway transport:** relatively fast and frequent connection to Ljubljana, connections also to Koper, Trieste, Rijeka and Pula
- **Bus service:** to Vrhnika and to Ljubljana, low frequency, long travel times (especially to Ljubljana), no internal service within the municipality.



ROAD NETWORK IN THE MUNICIPALITY OF BOROVNICA

Transport and traffic in the Municipality of Borovnica



SUMP of the Municipality of Borovnica



- Prepared in 2017, adopted by the *Municipal Council* and confirmed by the *Ministry of Infrastructure* in 2018
- **Main objectives:**
 - To maintain and increase the high share of railway transport in the modal split related to work and education travel.
 - To improve the inter-modality infrastructure and services by construction of a modern P+R hub with car and bike parking capacities and infrastructure for electric vehicles.
 - To increase share of cycling within the modal split by construction of respective infrastructure, improvement of the safety of the cyclists and promotion of cycling as a mode of transportation.
 - To improve road traffic safety, at very first on the regional road Vrhnika – Borovnica – Podpeč **by reconstruction of the road** and **construction of infrastructure for pedestrians and cyclists**, at very first in the settlements.



SUMP activity 1: P+R at Borovnica railway station



- Built in 2019:

86 parking lots for cars

+ 10 for charging EV;

**52 covered bike stands + 52
uncovered,**

total costs: **450.000 €**, EU and

RS subsidy: **250.000 €**



SUMP activity 2: Cycling connection P+R Borovnica– Breg

In construction since September 2022
to be finished in May 2023:

**Reconstruction of 1,3 km of regional
road + separate infrastructure for
cyclists + amphibia protection measures**

- **0,7 km of cyclist road**

Estimated costs: 2,4 mio €

- **Municipality: 0,65 mio €**
 - **EFRD: 0,62 mio €**
 - **RS: 1,13 mio €**



SUMP activity 3: Improvement of traffic safety



- New infrastructure for pedestrians
- Slowing down traffic speed by
 - physical measures
 - information systems
- Reconstruction of the local roads
- Relocation of parking facilities at school



SUMP activity 4: Promotion of sustainable mobility

- **EUROPEAN MOBILITY WEEK ACTIVITIES**

- Traffic safety workshops for pupils
- Bicycles, E-bicycles and e-scooters testing for kids
- Presentation of e-vehicles for pupils and parents
- Bike (self) reparation workshops
- Bike and walk to school activities



- **CONSTRUCTION OF PUMP TRACK FACILITIES**
POSITIVE IMAGE OF RAILWAY BY MAINTENANCE OF RAILWAY HERITAGE

- Memorial park and path of Borovnica viaduct
- Guided tours on railway heritage
- Acquisition of a museum steam locomotive
- Popular lectures on railway history



Further steps 1



- **An update of SUMP in 2024** according to the new guidelines of the Ministry of Infrastructure, potentially in partnership with neighbouring municipalities of Brezovica and Vrhnika.
- **Bridging the gap of cycling route Borovnica – border with the Municipality of Brezovica** between Breg and Pako (0,7 km).
- **Reconstruction** (encompassing also cycling infrastructure) of **the regional road Borovnica – Vrhnika** (9 km), including an expensive and nature protection highly sensitive **bypass of Bistra Monastery** (main premises of the Technical Museum of Slovenia).
- **Finalisation of the renovation of the main municipal road to Brezovica pri Borovnici.**
- **Calming down the traffic in the centre of Borovnica** (30 km/h zone) and other settlements



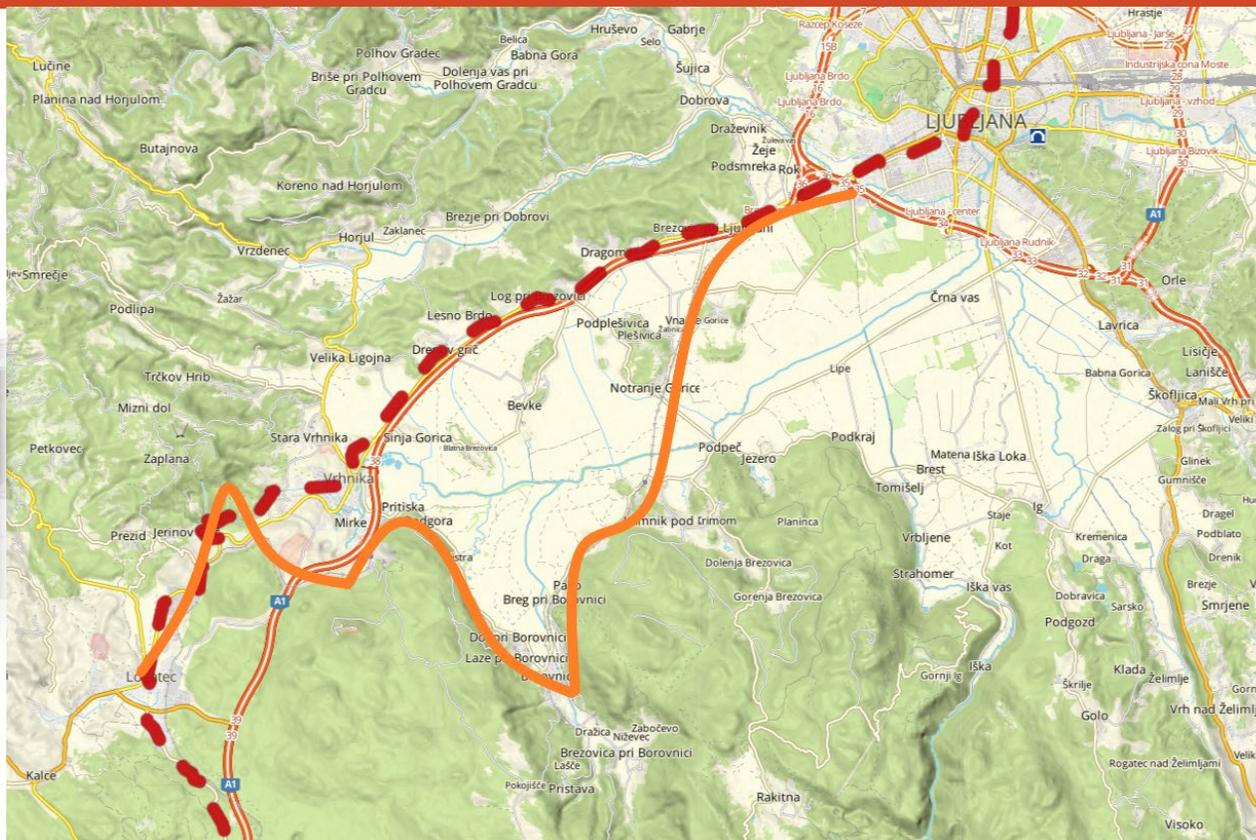
Further steps 2



- **Intensive promotion of new cycling infrastructure and co-modality of bike and train:** promotion videos, „bike bus“, „walking bus“ to school, „bike days“ at school, bike on train trips etc.
- **Awareness raising and campaigns on importance of slowing down the traffic in densely populated areas.**
- **Development of an integrated utility and recreational/tourist network in the municipality as a part of wider cycling network on Ljubljana marshes.**
- **Developing plans for bypass road after abandonment of present railway track Borovnica – Logatec** (due to construction of the new railway after 2030).
- **Developing plans for restoration of existing railway track Borovnica – Logatec into a cycling road** after it will be abandoned (around 2030).
- **Raising coalition for safe, comfortable and attractive tourist cycling route Ljubljana – Borovnica** as a part of national and international route Baltic – Adria (Eurovelo 9).



Strategic mid-term objective: inter-modal hub of cycling tourism on Eurovelo 9



SOUTH RAILWAY CYCLING ROUTE: Development of a safe, comfortable and attractive cycling route Ljubljana – Borovnica parallel to the railway-track Ljubljana – Borovnica (with last 8 km section on the abandoned track of the historic „South Railway“) and transformation of railway track Borovnica – Logatec into a safe, comfortable and attractive cycling route after construction of the new railway track.

SWOT ANALYSIS



Strengths:

- Tradition and high share of railway transport
- Short distances and predominately flat terrain
- Established trust and good cooperation between the stakeholders
- Enhanced cooperation with state authorities and national railway company

Weakness:

- Car dominated mobility culture
- Reluctance to accept changes
- Substantial lack of finances to improve infrastructure
- Weak cooperation with neighbouring municipalities
- Weak capacities of municipal administration to deal with transport and mobility issues

Opportunities

- Modernisation of railway infrastructure and services
- Need for bypass road at Bistra due to preservation and development of Technical museum of Slovenia
- Increased emphasis of sustainable travel in development of tourist strategies and products

Threats:

- Nature conservation demands can prevent necessary road reconstruction and development of cycling infrastructure or make it extremely expensive
- Bad communication of changes in traffic regimes can provoke resistance of the users

Sustainable mobility in small (semi) rural areas - Lessons learned



- **DO NOT PREACH SUSTAINABLE MOBILITY** and **DO NOT PUT IT IN THE CONTEXT OF SAVING THE CLIMATE** or **THE PLANET!**
- **EMPHASIS HEALT AND QUALITY OF LIFE ASPECTS OF SUSTAINABLE MOBILITY!**
- **Do not start by addressing behavioural changes** that first **demands long term intensive financing of infrastructure.**
- **Start where you are already strong** and bring it to perfection in order **to demonstrate that the change is possible** and has positive impacts!
- Provide a **strong information/awareness raising/education support activates** to implemented infrastructure measures based on well defined and the municipality tailored communication strategy!
- **Connect SUSTAINABLE MOBILITY with TOURISM DEVELOPMENT!**



THANK YOU FOR YOUR
ATTENTION AND WELCOME
TO BOROVNICA !

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