

Defining national cycle route networks and linking them in the Danube region

THE DANUBE REGION TRANSPORT DAY 2021

Gregor Steklačič
Republic of Slovenia
Ministry of Infrastructure
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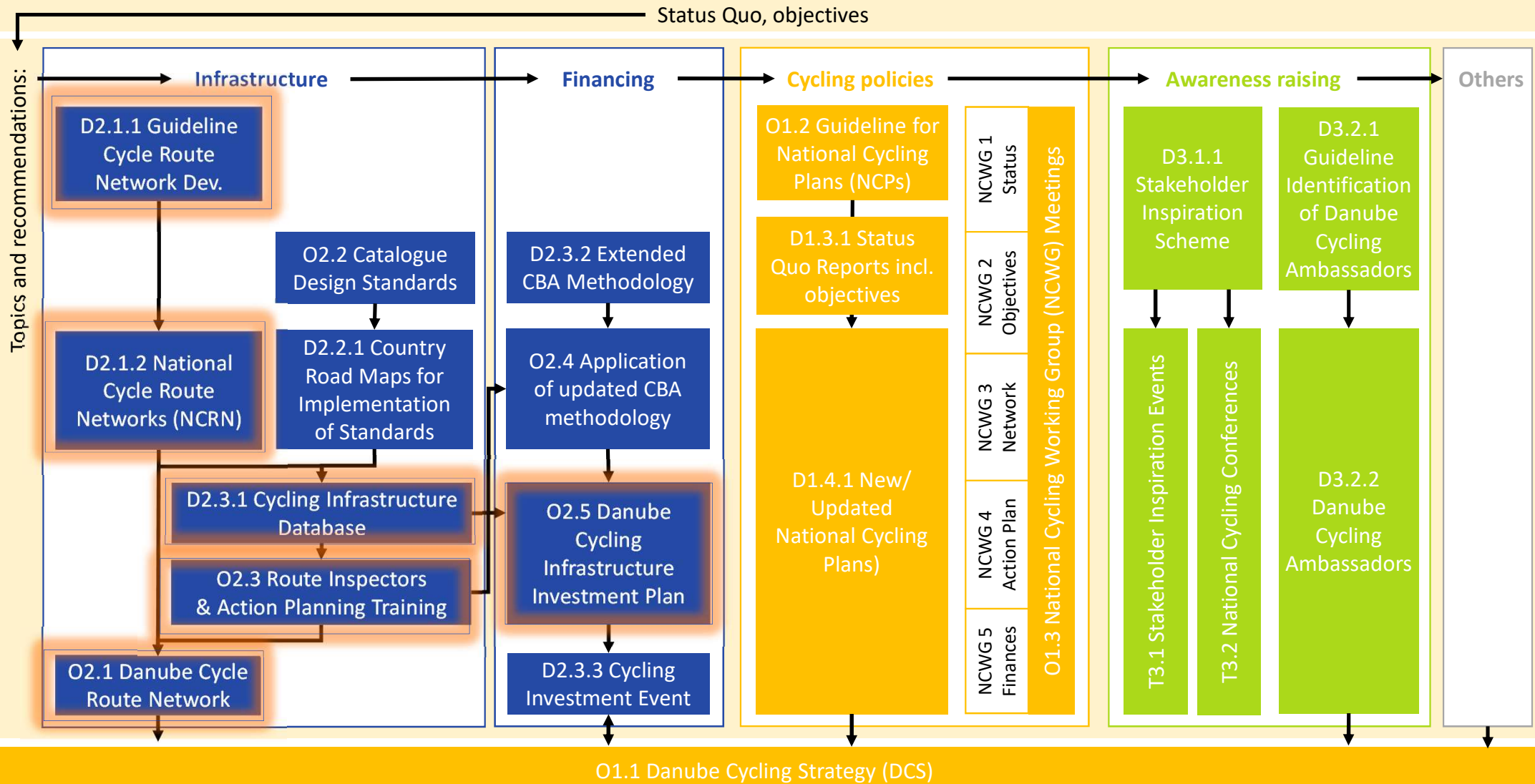


REPUBLIC OF SLOVENIA
MINISTRY OF INFRASTRUCTURE

Project co-funded by the European Union funds (ERDF, IPA)



Draft Danube Cycling Strategy (DCS)



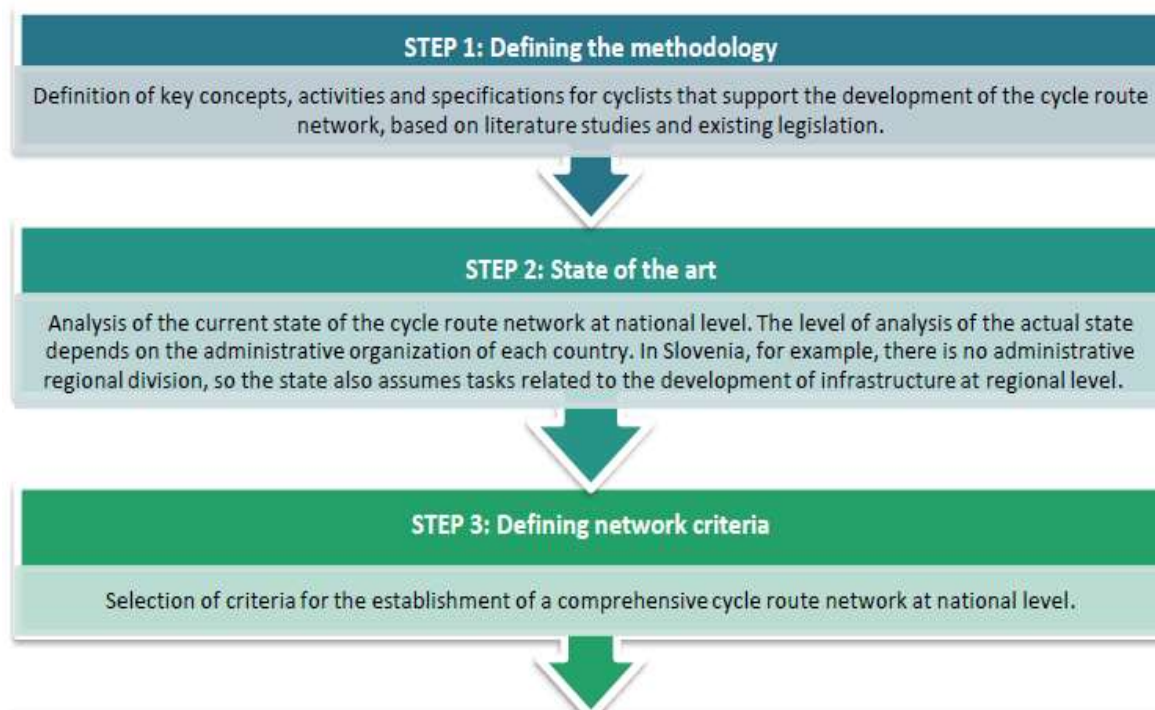
Danube Cycle Route Network - DanuVelo

*The DCRN will be a **macro-regional network** of cycle routes of different categories that **connects the participating countries** in the Danube region. The DCRN will consist of the **EuroVelo routes and the highest level of the national cycle routes**. It will consider the requirements of both, **leisure cycling and bicycle commuting**. Special focus will be given to **cross-border sections** linking national cycle route networks leading to a consolidated transnational cycle route network. Defining the DCRN will help national and regional governments to identify, design and prioritize main cycling corridors. The DCRN will be delivered as a set of **GIS shapefiles** of the routes and the necessary attribute data, which can easily be included in different mapping and analytical tools.*

[\(Danube Cycle Plans Application Form, page 45\)](#)

How?

- **Project Guidelines**, based on Slovenian study *Development of a model to connect Slovenia with cycling routes*
- 7 steps methodology, easily transferable to other countries



Danube Cycle Plans
Guidelines to Define
National Cycle Route Network



<http://www.interreg-danube.eu/approved-projects/danube-cycle-plans>

PP4 SL: Republic of Slovenia
Ministry of Infrastructure
WP T2.1
Version 13.0
Date: 9. 4. 2021

A stream of cooperation

Project is co-funded by the European Union funds (ERDF, IPA).

<https://www.interreg-danube.eu/approved-projects/danube-cycle-plans/section/outputs-methodologies-and-guidelines>

Slovenian example

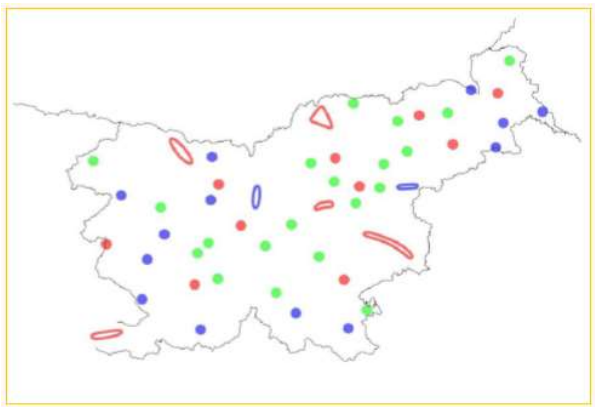
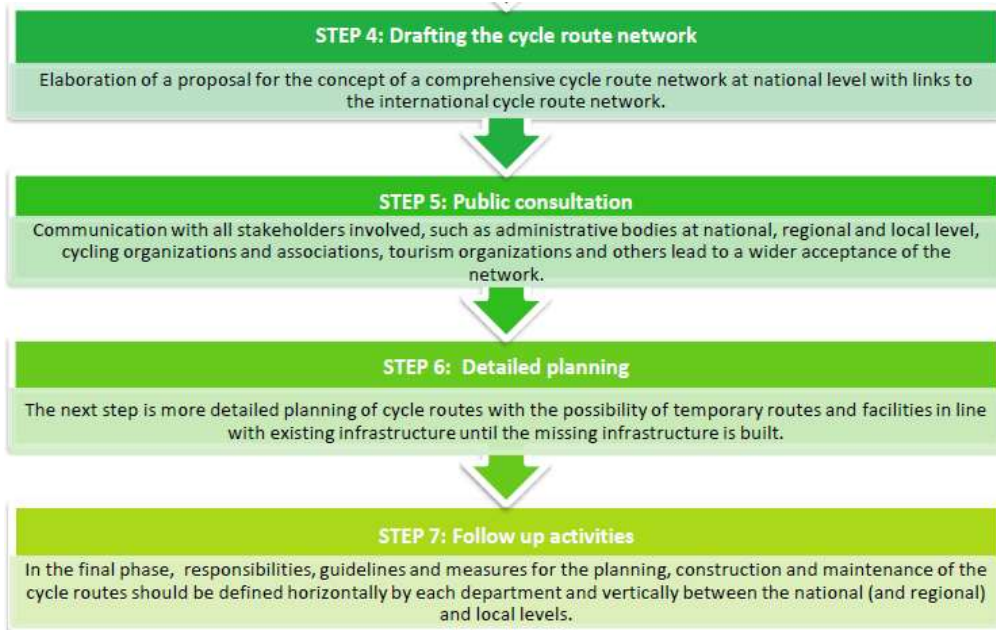


Figure 3: Hierarchy of settlements in Slovenia.

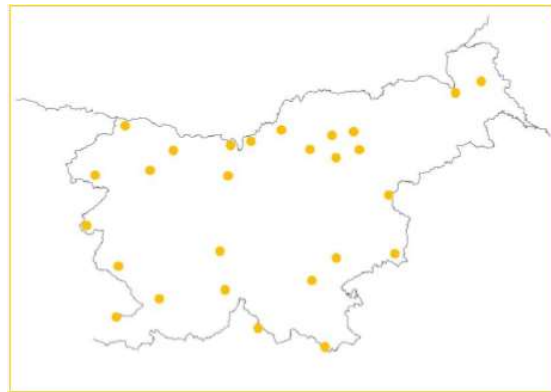
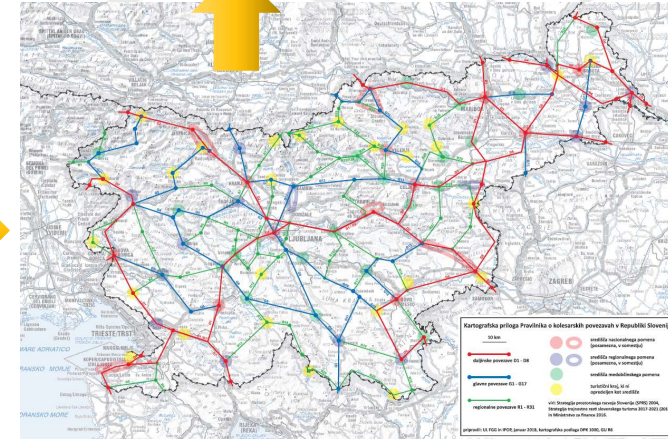
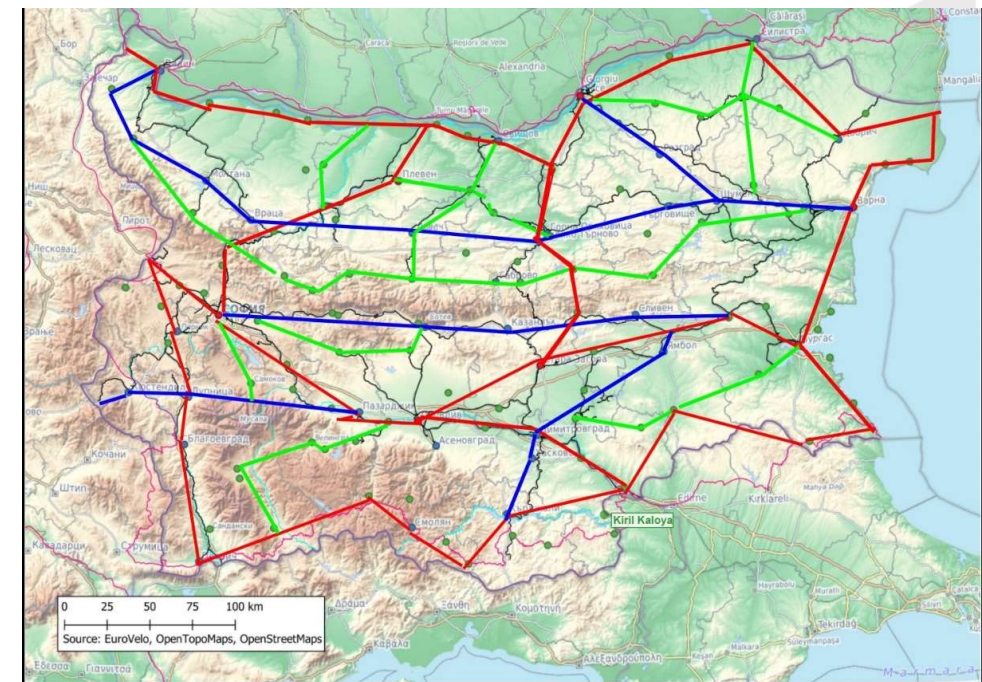
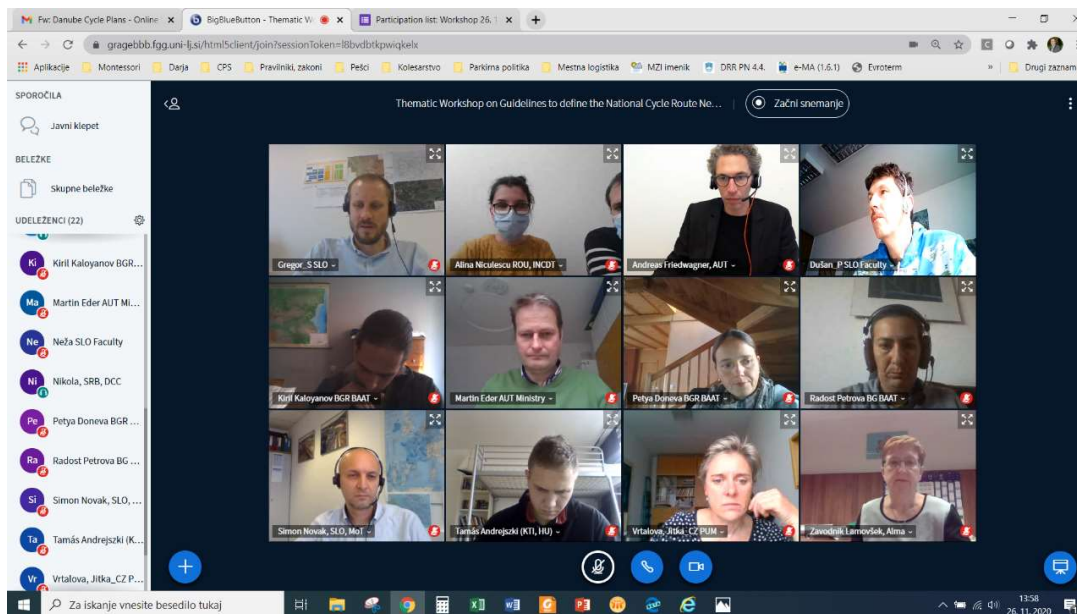


Figure 4: Main tourism points in Slovenia.



Process

- Draft of Guidelines presented at the Online workshop at the end of 2020
- Final version in April 2021
- 9 National cycling working group with the facilitation of cycling experts elaborated a draft of the NCRN / reviewed their NCRN



Result:



Challenges:

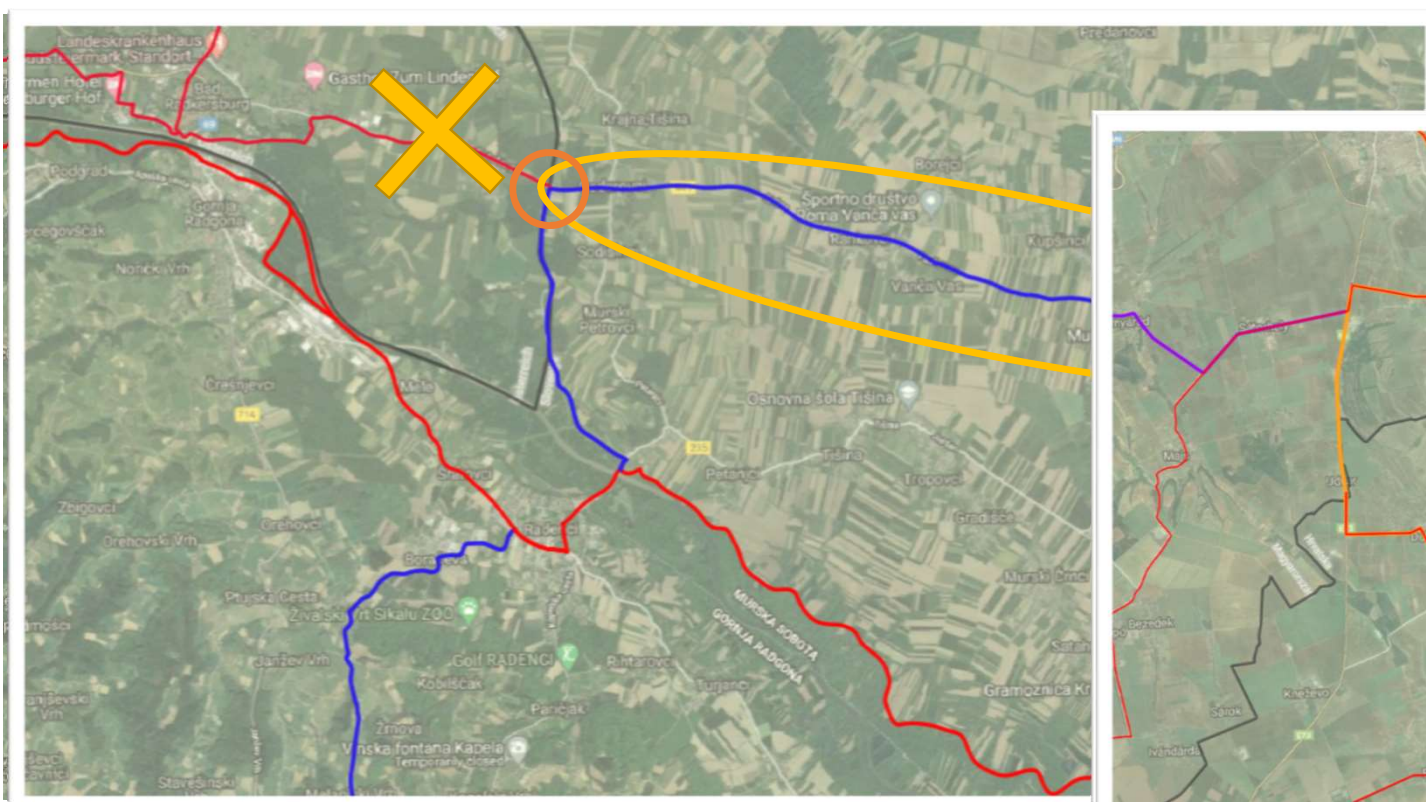
- Legislative framework
- Administrative governance
- Density
- Cross border routes

Getting from NCRN to DCRN

- Selection of routes out of each national cycle route network to be used for the Danube Cycle Route Network a.k.a. DanuVelo
- **DCRN** - connecting partnering countries' "Core Networks"
 - **EuroVelo** routes and
 - **highest (long-distance) level of national cycle routes**
 - Other levels of cycle routes networks used to have coherent cross border connection
- Proposal to have < 100m of core network per 1 km² of the total area of the country

Cross border cycle routes connections

- Regional connectivity across the border
- Bi(or tri)-lateral agreements with the neighbouring countries



DanuVelo

- Defined by end of March
- Included in national and Danube Cycling Strategy as a priority
- Funding opportunities



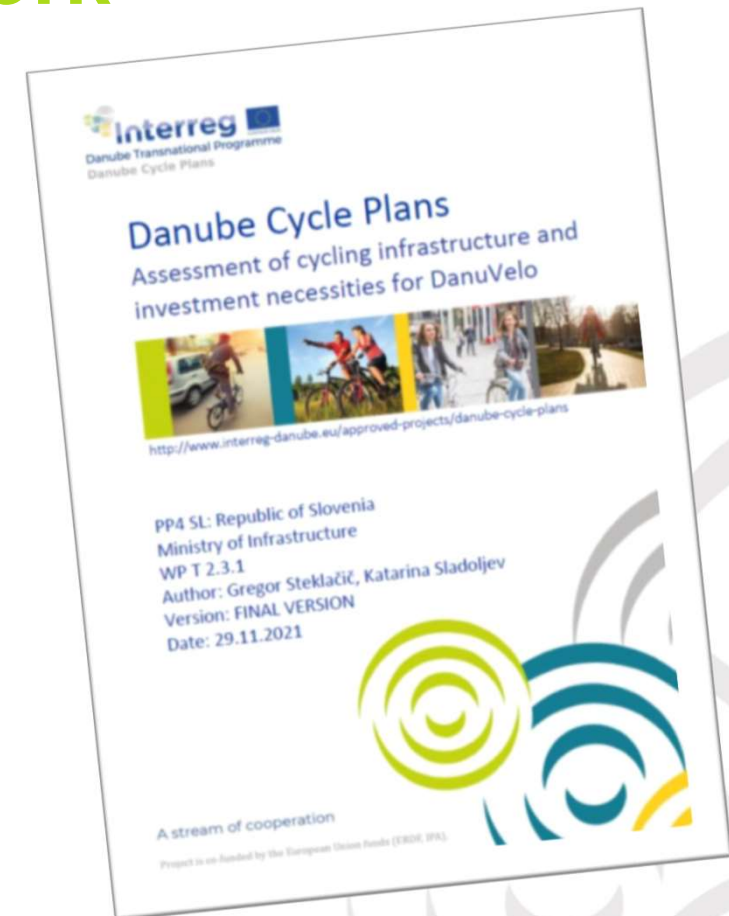
Core National Cycling Networks



? ? ?

Assessment of investment necessities of the DanuVelo network

- Mainly desk research analysis
- Dividing cycle route in sections
- GIS software to create the common database
- Rough estimation, based on average investment cost in the country for each type of „investment“



<https://www.interreg-danube.eu/approved-projects/danube-cycle-plans/section/outputs-methodologies-and-guidelines>

Assessment of the route condition levels of the proposed DCRN

4 categories for classifying the status of current cycling infrastructure

- GECl - Good enough cycling infrastructure
- AEAR - Adjusting existing adequate roads
- CINE - construction improvement needed for existing service, forest and field roads
- NECI - New cycling infrastructure needed

	speed km/h	30	40	50	60	70	80	90	
v/h	v/d								
50	417								road
250	2083								track
500	4167								lane
1200	10000								mixed
2000	16667								
2500	20833								

Table 1 Speed limit traffic density matrix to define appropriate cycle infrastructure, proposed as DCP standard (Belamarić)

Investment necessities

By mid 2022 we will provide the calculation of:

- Common investment necessities for DanuVelo
- Investment necessities for each separate cycle route
- Investment necessities for each country
- Investment necessities for each road manager in the country

Cycle Route SI1 - Eurovelo 9 150km

Investment necessities	LENGHT (in m)	INVESTMENT COST per m2	WIDTH	INVESTMENT PLAN
Good enough cycling infrastructure – GECl	31.572	1,00 €	1,00	31.572,00 €
Adjusting existing adequate roads - AEAR	48.297	10,00 €	1,00	482.970,00 €
Construction improvement needed – CINE	25.847	50,00 €	1,00	1.292.350,00 €
New cycling infrastructure needed - NECl	44.284	188,00 €	3,50	29.138.872,00 €
	150.000			30.945.764,00 €

Cycle Route SI2 - Savska cycle route 180km

Investment necessities	LENGHT (in m)	INVESTMENT COST per m2	WIDTH	INVESTMENT PLAN
Good enough cycling infrastructure – GECl	64.827	1,00 €	1,00	64.827,00 €
Adjusting existing adequate roads - AEAR	51.982	10,00 €	1,00	519.820,00 €
Construction improvement needed – CINE	28.579	50,00 €	1,00	1.428.950,00 €
New cycling infrastructure needed - NECl	34.612	188,00 €	3,50	22.774.696,00 €
	180.000			24.788.293,00 €

Table 3 Example of infrastructure investment needs for 2 CCR for Slovenia

Invitation to collaborate

- Bosnia and Hercegovina
- Montenegro
- Moldova,
- Ukraine:
 - Chernivetska Oblast,
 - Ivano-Frankiviska Oblast,
 - Zakarpatska Oblast and
 - Odessa Oblast
- Germany:
 - Bavaria
 - Baden-Württemberg

Join the DanuVelo club



Contact



Gregor Steklačič, Katarina Sladoljev

Ministry of Infrastructure, Slovenia



<https://www.gov.si/drzavni-organi/ministrstva/ministrstvo-za-infrastrukturo/>



gregor.steklacic@gov.si, katarina.sladoljev@gov.si



00 386 30 487 831