

# Experiences of regional network planning in Hungary and Romania

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# Mobilissimus

- Sustainable mobility planning & consultancy company
- Working on local, national and European level
- Main activities:
  - strategic planning, feasibility studies, consultancy
    - sustainable urban mobility planning (SUMP)
  - public transport planning
  - cycling strategies & network plans
  - European projects (Horizon, INTERREG etc.); Magyar CIVINET



Planning and elaboration of strategies



Professional cooperation



Preparation of analyses and forecasts



Consultancy, communication and marketing



Education and trainings



Tendering and project management

**MOBILISSIMUS**

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Tanácsadás, kommunikáció és marketing

Oktatás, képzés

Pályázatkészítés, projektmenedzsment

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#fenntarthato #fenntarthatosag #mobilitas #sump #tervezes #analizis #elorejelzes #strategia #tervezes #tanacsadas #tanacsadasi #kommunikacio #kepzes #palyazatkészítés #projektmenedzsment



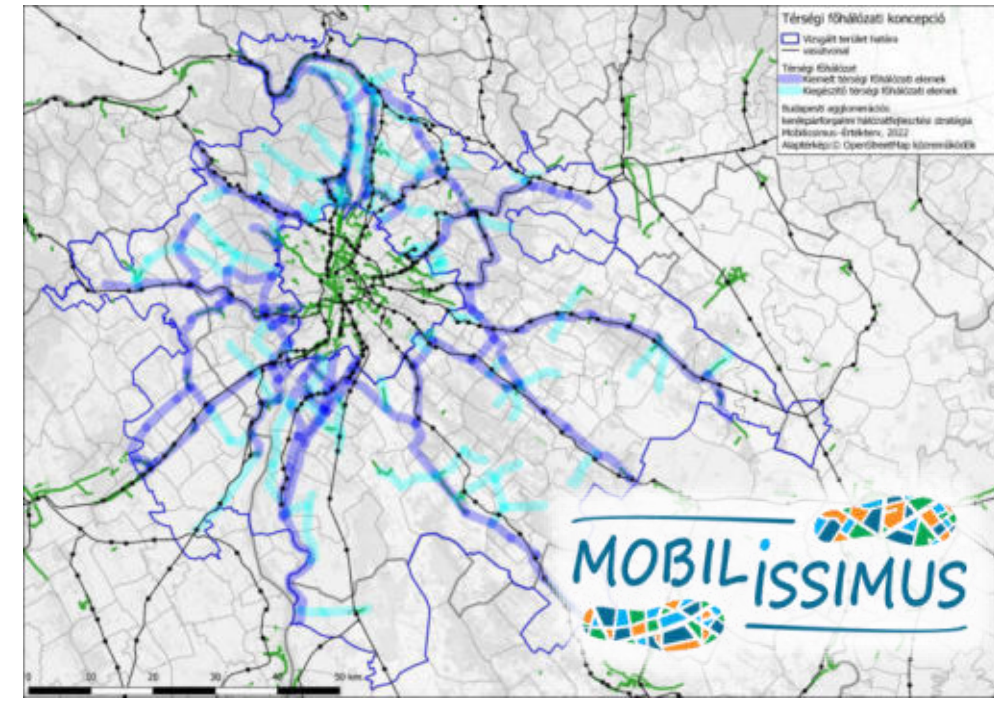
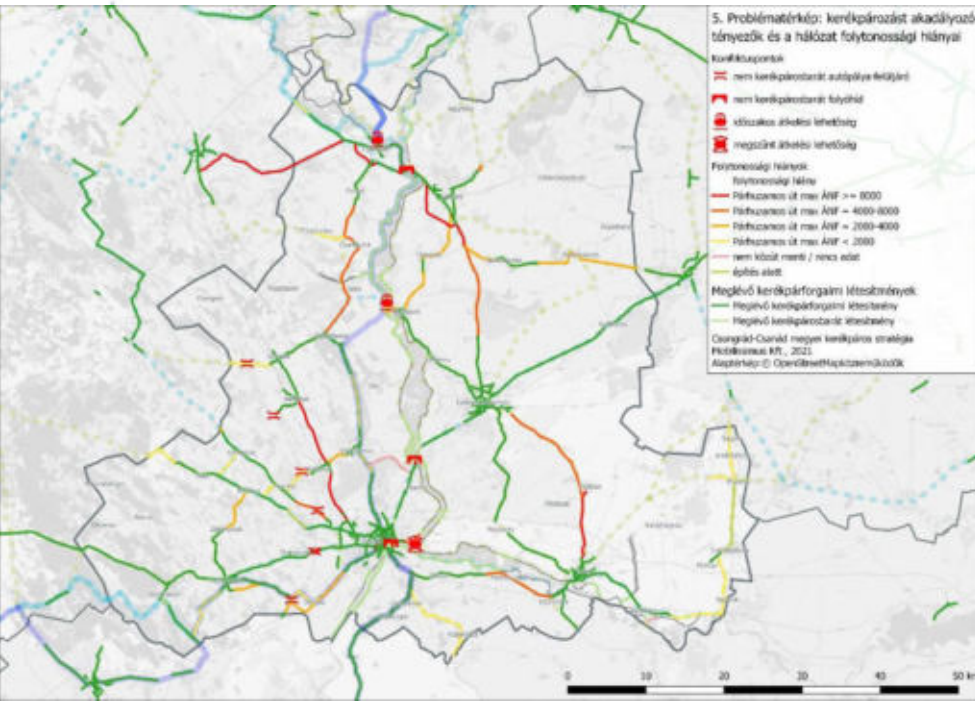
# Cycling strategies & network plans

## County / regional

- Bács-Kiskun County (2019)
- Csongrád-Csanád County (2022)
- Budapest agglomeration (2023)
- Timis County (RO) (2023)
- Bács-Kiskun County (2023)

## City / microregional

- City of Dunaújváros (2017)
- Budapest Western agglomeration (2021)
- City of Vecsés (2023)



# Contents of the presentation



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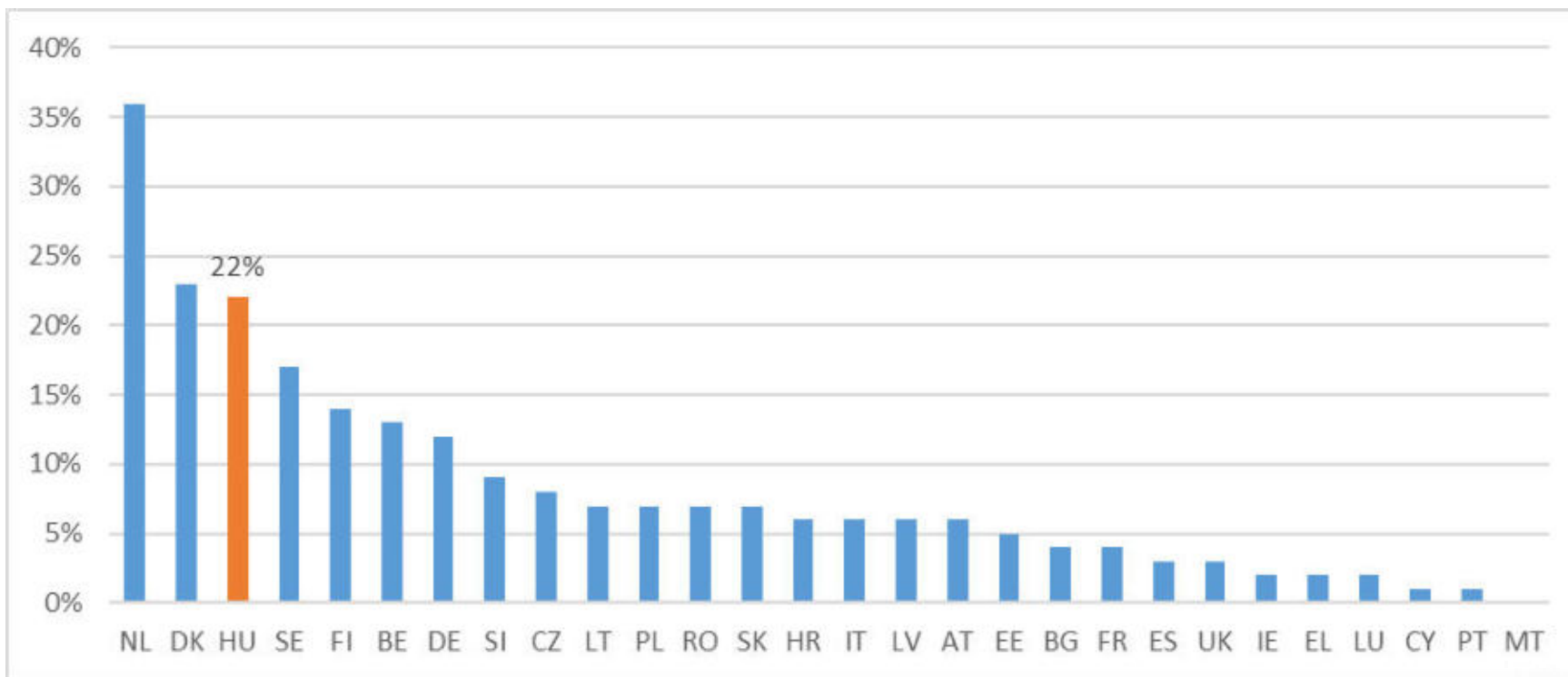
*Network planning & prioritisation*

## 1

# The state of cycling

Eurobarometer survey (2014)

*„On a typical day, which mode of transport do you use most often?“*



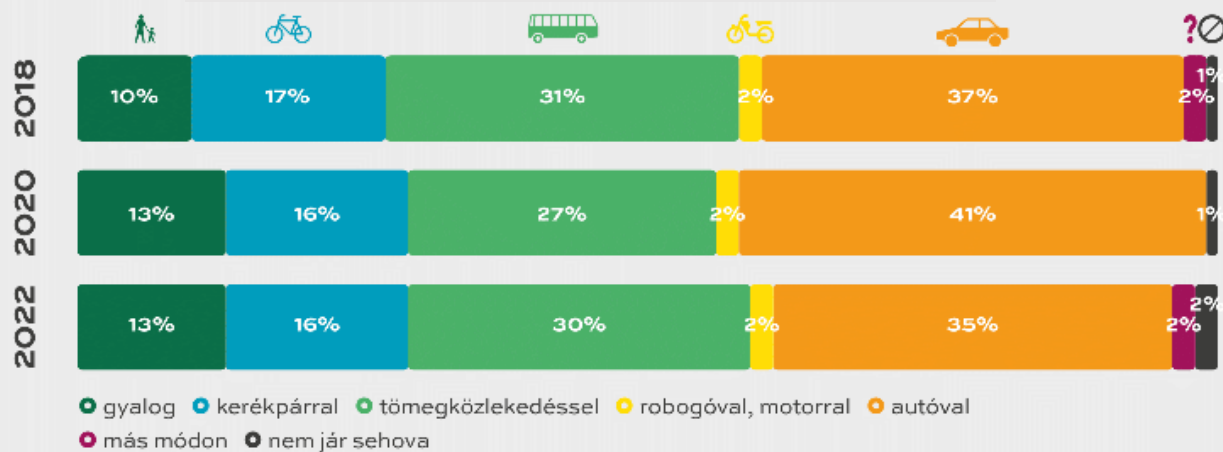


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# The state of cycling

Representative survey of Hungarian Cyclists' Club (2018, 2020, 2022)

## Primary mode of transport



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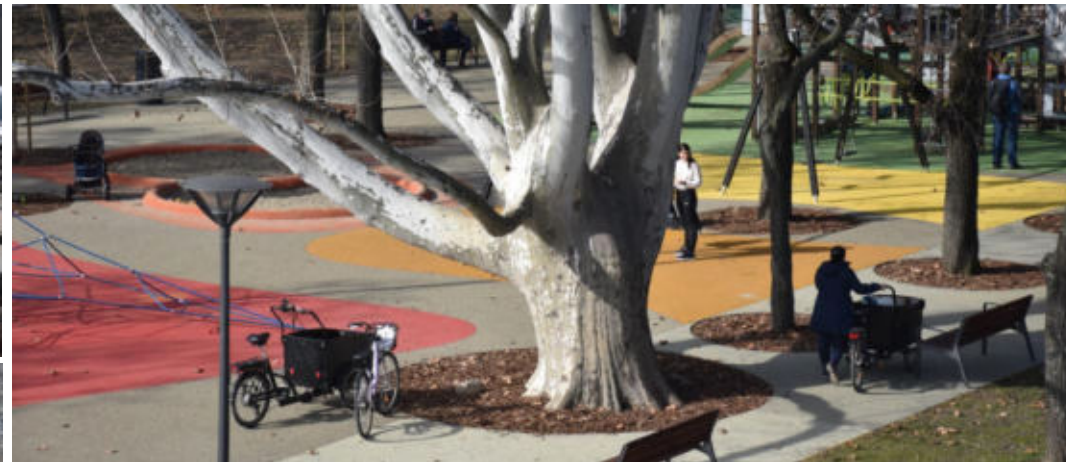
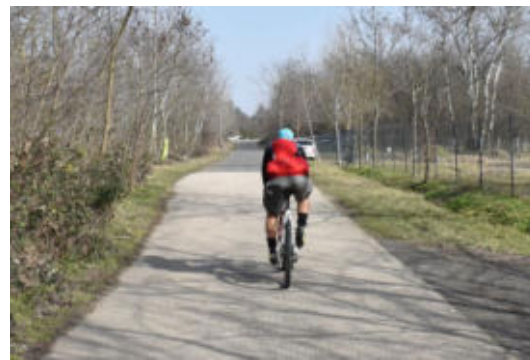
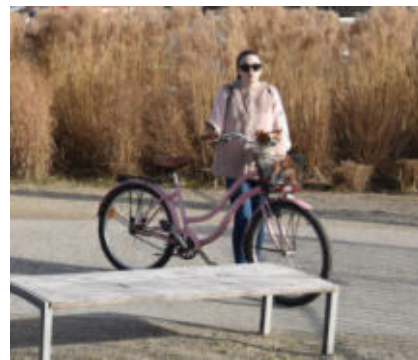
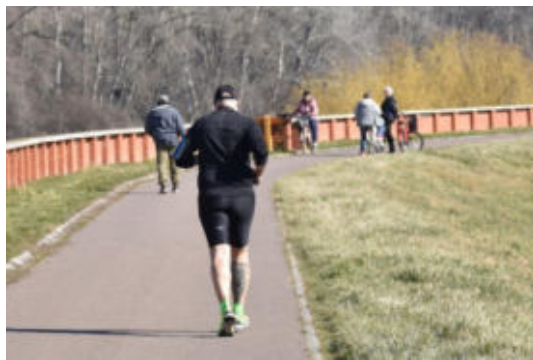
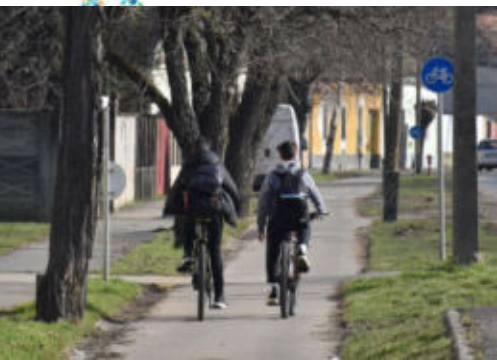




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# The state of cycling

Images from Csongrád-Csanád County (2021)

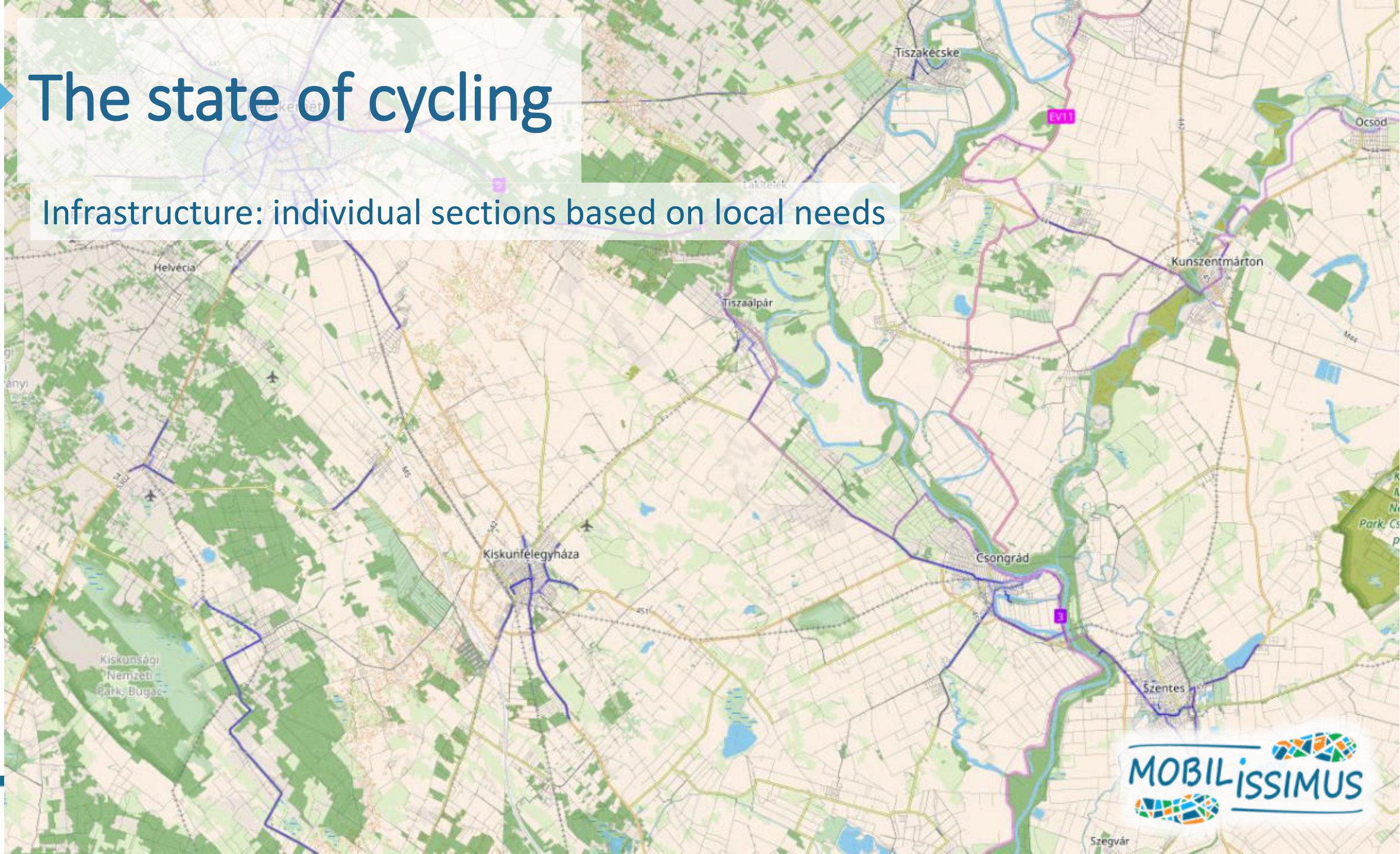


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# The state of cycling

Infrastructure: individual sections based on local needs





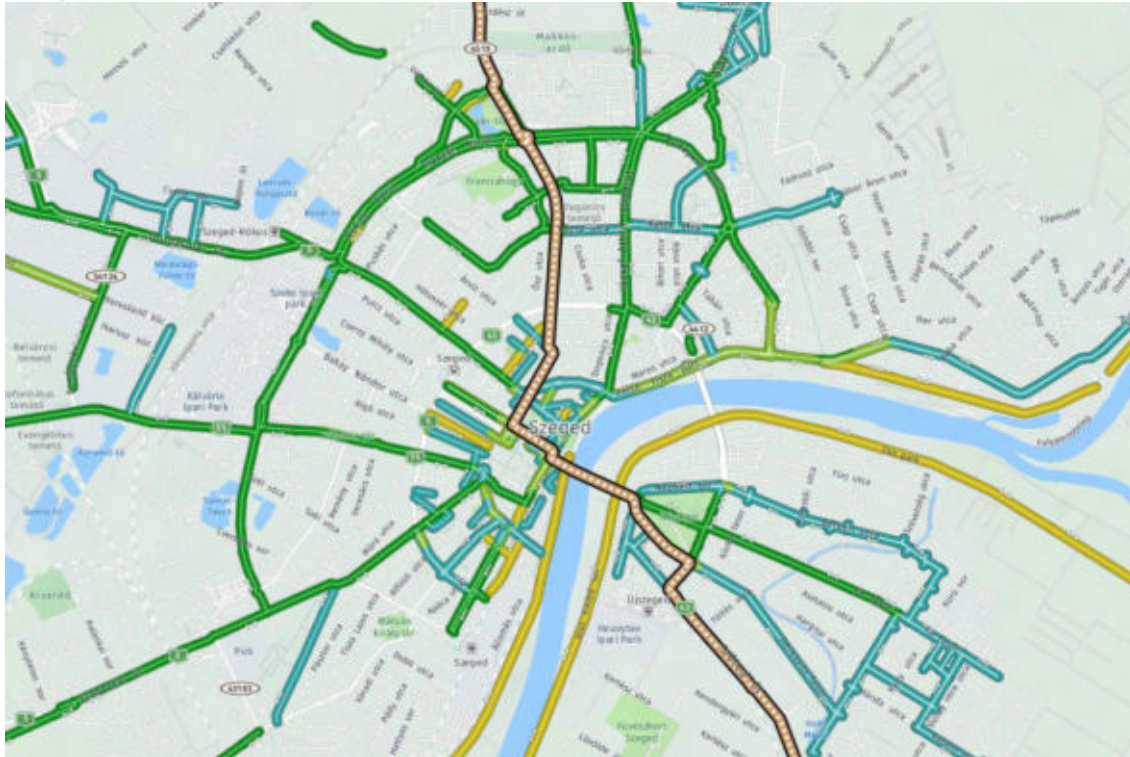
## 2

# Open data & infrastructure surveys



## Data on existing infrastructure

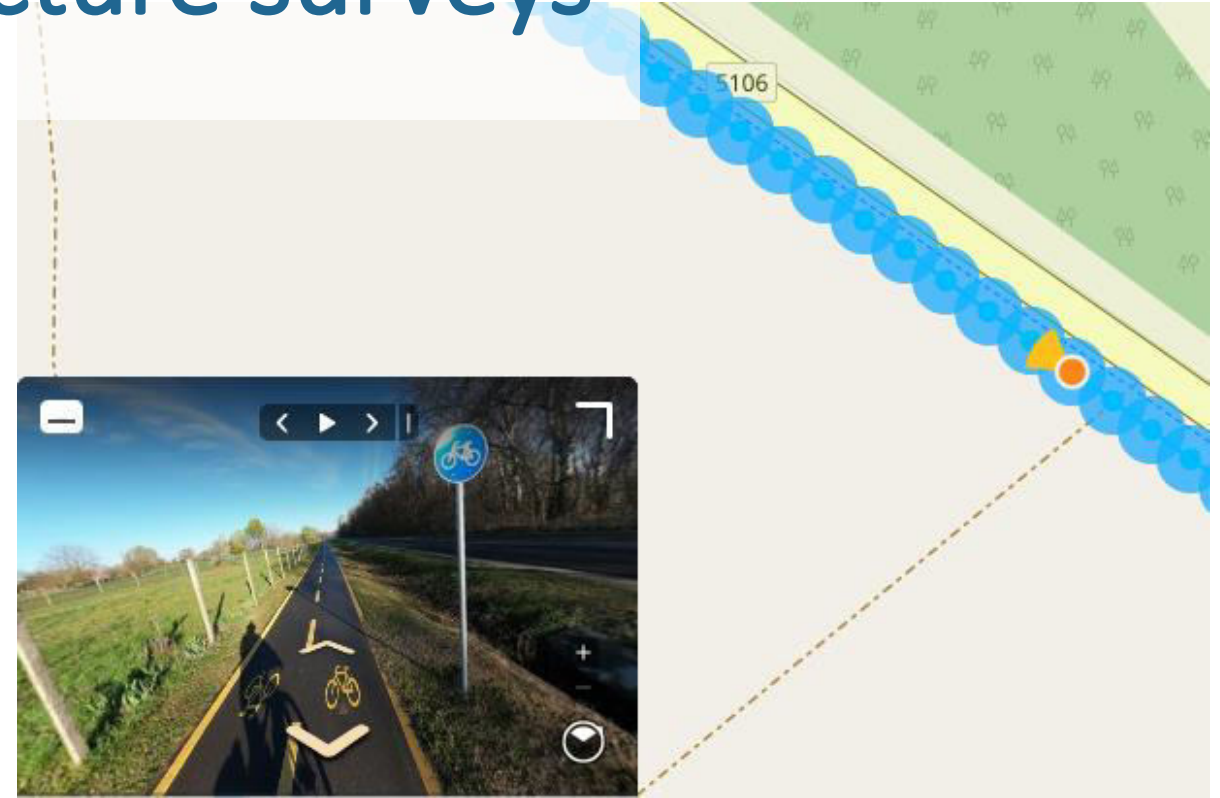
- Official GIS database (KENYI)
- Open data: OpenStreetMap (OSM)



# Open data & infrastructure surveys

## Data on existing infrastructure

- Own surveys:
  - 3D imagery
  - Street view at Mapillary
  - Updating the OpenStreetMap database
  - EuroVelo certification standards
- Cyclability analysis

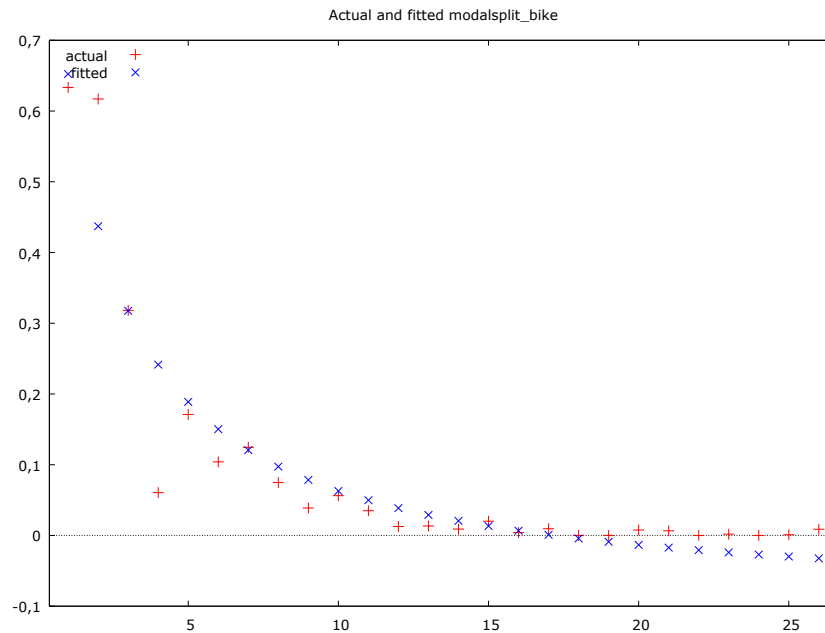




# Demand estimation

## Data on cycling needs

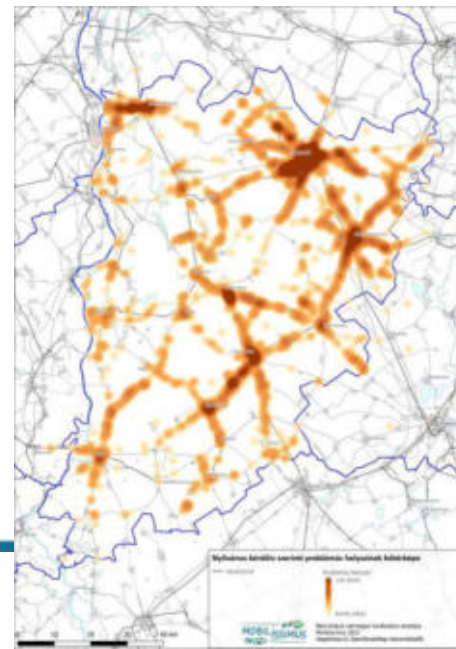
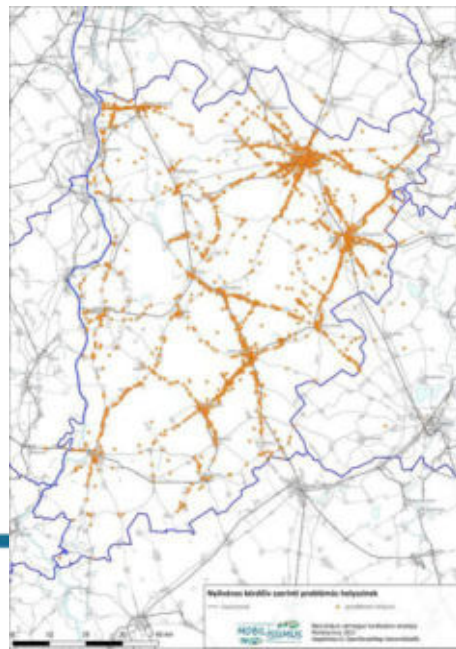
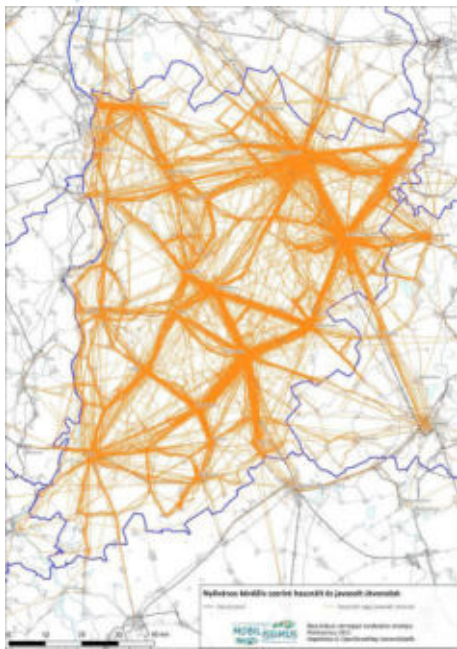
- Commuting
  - Census data (commuting, commuting by bicycle)
  - Gravity model
  - Modal share of cycling by distance



# Demand estimation

## Data on cycling needs

- Mobile application data
- Mapping questionnaire (different services):
  - Routes used
  - Conflict points
  - Routes to be developed
- Heatmap





# Network planning & prioritisation

## Principles of network planning

- Cohesion
- Directness
- Safety
- Comfort
- Attractiveness

## Steps of main network planning

1. Determining origin and destinations and links
2. Transforming desire lines into routes
3. Confrontation with other modes of transport
4. Doing away with (and preventing) barriers





# 4

# Network planning & prioritisation

## Project assessment and prioritisation

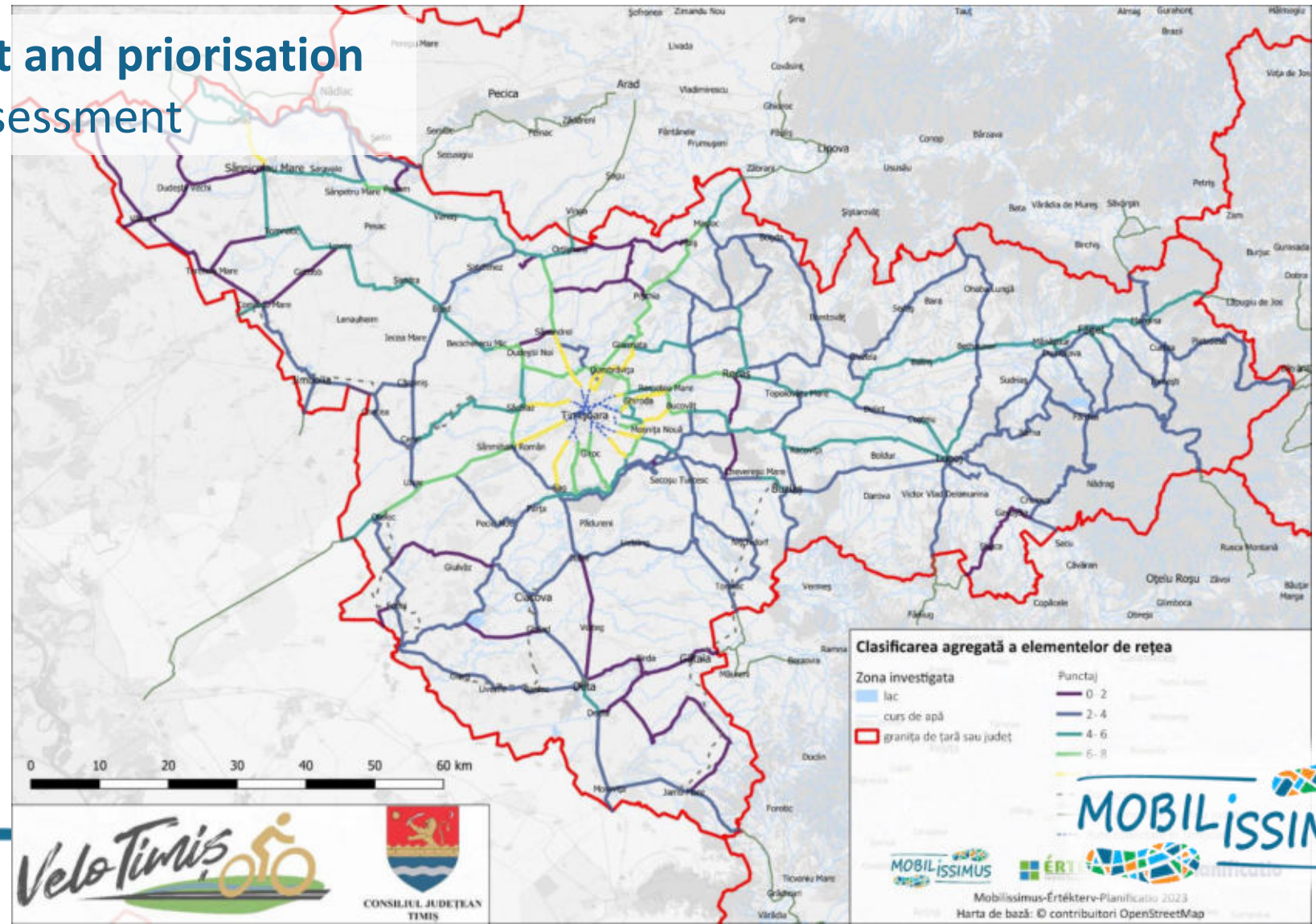
- Aspects:
  - Needs
    - Everyday mobility (utility, commuting)
    - Leisure
    - Tourism
    - Network level
  - Cyclability
    - Existence of paved road
    - Road traffic
    - Road safety (accidents)
  - Status and feasibility
    - Level of completion
    - Status of preparation (plans, permits)
    - Status of funding



# Network planning & prioritisation

## Project assessment and prioritisation

- Weighted assessment





# Thank you for your attention!

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[Cycling strategies and network plans](#) | [Cycle route surveys](#)

