Monitoring and evaluation
Short summary of EUCS chapter 11

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1. Policy and project evaluation
2. KPI
3. Common definitions and harmonisation to improve synergy among different cycling statistics
4. Use crowdsourcing and big data collection for monitoring
Proposed changes

EU LEVEL
• Improve communication: best practices such as the cycling barometer
• Provide funding for tools (new + uptake existing)
• Encourage and extend joined initiatives

Key = how far policy measures and projects contribute to targets?

Monitoring (over time)

NATIONAL LEVEL
• Provide fora and joint initiatives
• Stimulate comparisons among cities at the national level
• National cycling strategies incl. policy and project evaluation

REGIONAL AND LOCAL LEVEL
• Evaluate policies and projects (using standards)
• Participate in joint initiatives and fora and share best practices

Policy and project evaluation | KPI | Synergy through common definitions and harmonisation | Crowdsourcing and big data collection for monitoring
Sustainability of cycling infrastructure: User needs and climate change mitigation

A general question could be asked to all respondents:

1. Do you in general like cycling?
   - Like extremely
   - Neither like nor dislike
   - Dislike extremely
   - Like very much
   - Dislike very much
   - Refusal to respond

However, questions about satisfaction with the cycling infrastructure and the cycling friendliness should be different for people who cycle regularly and those who don't.

For those answering that they ride a bike less than a few times a month:

2. What are the main reasons for you not to ride a bike in the city more often?
   - There are too few dedicated lanes for cycling
   - The way other road users treat cyclists
   - The bicycle parking facilities in the city are too far and too unsafe
   - The risk of being involved in an accident
   - Availability of car parking spaces
   - The roads are of poor quality for cycling
   - Physical attacks

For those answering that they ride a bike at least a few times a month:

3. Please rank the following aspects of cycling in the city starting with the item which is most important to you. (from 1 to 11, 1 = the most important)
   - Number and the location of shared use roads
   - Number and the location of shared bicycles
   - Signposting of directions and destinations
   - Lighting of bike facilities
   - Signposting of directions and destinations for riding
   - Bicycle parking facilities
   - Security of the bicycle parking facilities
   - Bicycle parking facilities
   - Security of the bicycle parking facilities
   - Quality of road surface of the bike lanes
   - Availability of dedicated lanes for cycling

4. How do you feel about comfort of cycling? Are you satisfied with the following items: Answer as follows:
   - Very Satisfied
   - Satisfied
   - Neutral
   - Dissatisfied
   - Very Dissatisfied
   - The way other road users treat cyclists on mixed use roads
   - The way other road users treat cyclists on mixed use roads
   - Signposting of directions and destinations for riding
   - Lighting of bike facilities
   - Availability of dedicated lanes for cycling
   - Availability of dedicated lanes for cycling
   - Availability of dedicated lanes for cycling

Source: Own elaboration based on WBCSD, 2015

The CVoC concept allows the calculation of the opportunity benefits (cycling) of a bicycle route. The methodology shows that bicycle mobility is competitive with the car. The CVoC is dependent on the amount of cycling traffic, the length of the cycle route, and the number of cyclists.

C_ZERO (2010)

Cycling route

Bus and bicycle lane

Cycle track

Cycle street

Contralow cycling

Cycle lane

Advisory cycle lane

Cycling...
Proposed changes: cycle use KPI

**EU Level**
- Collect more cycling use data and statistics in existing European surveys (e.g. European level such as the Eurobarometers and the Health Interview surveys)
- Promote harmonisation NTS
- Create guidelines and recommendations for harmonisation of existing national, regional and local statistics
- Provide additional funding for cycling data collection and analysis

**National Level**
- Carry out harmonized NTS

**Regional and Local Level**
- Use EU standards in data collections
Proposed changes KPI on cycling infrastructure, environment, QOL

**EU LEVEL**

- Measure the quality of infrastructure and quantity and quality in terms of user satisfaction
- Support further research on cyclists’ needs for cycling infrastructure
- More synergy among existing European data collections (link between infrastructure, user satisfaction and QOL)
- Incorporate explicitly SDG goals into EU goals

**NATIONAL, REGIONAL AND LOCAL LEVEL**

- Create national, regional and local databases/inventories of cycling infrastructure, including quality indicators

| Policy and project evaluation | KPI | Synergy through common definitions and harmonisation | Crowdsourcing and big data collection for monitoring |
Proposed changes bicycle business performance KPI

EU LEVEL

- Develop TSA in Europe, including cycling
- Support more research on the economic impact of cycling
- Short term guidelines for common definitions, harmonisation methods
- More synergies among data collection initiatives

NATIONAL, REGIONAL AND LOCAL LEVEL

- Collect data according to harmonised European standards
Proposed changes safety and health KPI

**EU Level**

- Guidelines and recommendations to produce comparable statistics
  - cycle use (pkm), modal split, ...
  - combined with cycling accident statistics
  - exposure where people cycle

+ in relation to motorized traffic and infrastructure characteristics

- Support more research on the health effects of cycling

**National, Regional and Local Level**

- Collect data according to harmonised European standards
Proposed changes KPI climate change mitigation and SD

EU Level

• Research complex relations between cycling, sustainable development and climate change mitigation

• Good practice examples

National, Regional and Local Level

• Include cycling measures in the monitoring of the achievement of national, regional and local climate goals

Policy and project evaluation | KPI | Synergy through common definitions and harmonisation | Crowdsourcing and big data collection for monitoring
Common definitions and harmonization to improve synergy among different cycling statistics

**EU Level**
- Research user satisfaction, safety and security *linked* to cycling infrastructure
- Absence of definitions = opportunity for short term change
- 1) existing standards (what is a bike?) e.g. EN ISO standard 4210 ‘Cycles — Safety requirements for bicycles’, also listed as a harmonised standard (GPSD), and different types of pedelecs have not yet found their way to data collection

**NATIONAL, REGIONAL AND LOCAL LEVEL**
- 2) lack of standard approaches to calculate (mobile population, share of the population cycling regularly, trip stages, ...)
  - Apply adopted guidelines and recommendations
  - Participate in the development of EU level guidelines and recommendations on definitions and collection and harmonisation methods
  - Guidelines for harmonising statistics (e.g. cycling statistics need to be calculated by degree of urbanisation, city and commuting zones)

Cycling tends to be underestimated

**Proposed changes**

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Use crowdsourcing and big data collection for monitoring

**Infrastructure**

Combination tracking, counts, surveys, analytical tools, ...

Proposed changes: **legal framework** and guidelines for harmonised data collection from big data sources like smartphone GPS sources (e.g. Privacy)

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**Best practice example – Fietstelweek**

An initiative combining voluntarily gathered geographic information and traffic counts to produce comparable cycling statistics in Flanders and the Netherlands.