Mobile 2020: Utility cycling in small towns in Eastern Europe

Greg Spencer, project manager

REGIONAL ENVIRONMENTAL CENTER

In this presentation

- Description of the Mobile 2020 project
- Main results
- Challenges regarding GHG-reduction component of project evaluation

Mobile 2020 project

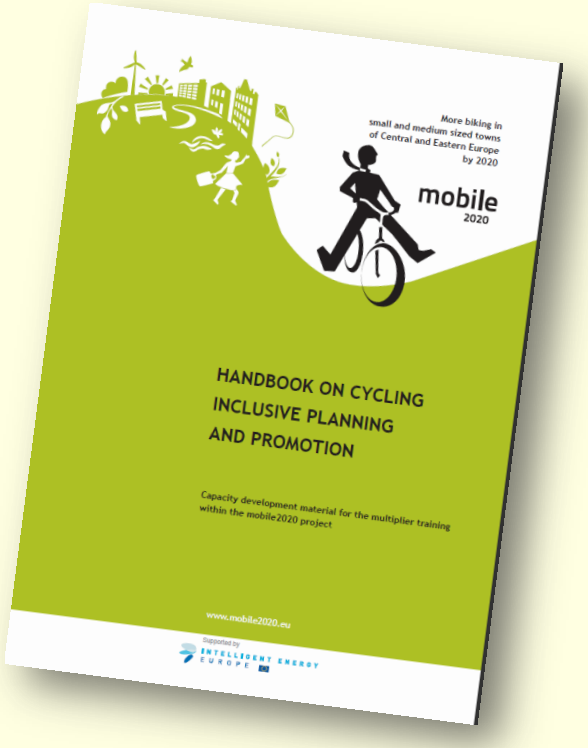
- Promoting cycling as transport in smaller communities (<350,000) in Central and Eastern Europe
- 2011-2014
- Intelligent Energy Europe Programme

Partners and roles

Partner	Role
Baltic Environmental Forum	Coordination, implementation in Estonia and Latvia
Regional Environmental Center of Central and Eastern Europe	Results evaluation; implementation in Czech Rep., Slovakia, Croatia, Hungary, Poland, Bulgaria, Slovenia, and Romania
Atgaja Community	Implementation in Lithuania
Technical University Hamburg-Harburg	Climate change mitigation evaluation
Institute for Social-Ecological Research (DE)	Curriculum development
International Bicycle Consultancy	Utility cycling advice

Approach

- Developed curriculum, trained trainers
- Held seminars for municipal transport staff on:
  - Infrastructure design
  - Integrated transport planning
  - Communications/ promotions
  - Cycling services (e.g. bike share systems, route finders)



Approach (continued)

- Held promotional events (e.g. bike-friendly city awards, cycling video contest)

Approach (continued)

- Developed national networks devoted to cycling promotion. Members represented:
  - national transport ministries,
  - municipalities,
  - city associations,
  - cycling advocates,
  - experts

Main results

- 63 cycling development seminars delivered in 11 countries (5 to 11 per country)
- Staff from 375 municipalities were trained
- Cycling development handbook adapted and translated for all 11 countries
  - In Bulgaria, adopted into curriculum of the University of Architecture, Civil Engineering and Geodesy, Sofia.

Main results (cont'd)

- 78 cities reported project impacts
  - Bike-friendly traffic management
  - New cycling strategies, work plans
  - Infrastructure investments started

Main results (cont'd)

- Some nationwide impacts
  - Slovakian government began work on national utility cycling strategy
  - In Czech Republic, 33 cities formed Association of Bike-Friendly Cities
  - In Hungary, cycling strategic document identified funding priorities for 2014-2020 EU funding cycle

GHG evaluation -- aims

- To find a correlation between different cycling development measures (similar to ones in Mobile 2020) and their impacts on GHG emissions
- To do a “profound analysis” of potential GHG emissions in a Mobile 2020 project city
- To create a toolkit for evaluation of cycling development strategies and their GHG-reduction potential

GHG evaluation -- results

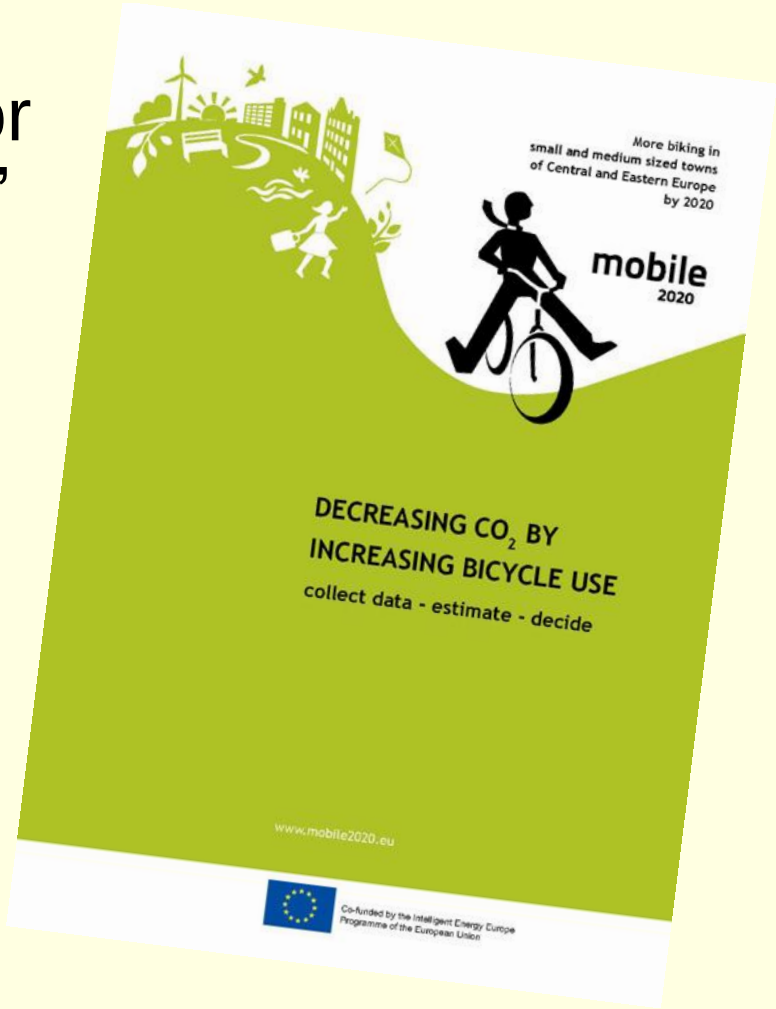
Unfortunately …

- Desk research turned up zero studies evaluating GHG impacts of cycling measures
- Transport data for smaller cities barely exists (e.g. modal split data existed for just 12 of 375 project cities)
- Toolkit for GHG evaluation of cycling strategies was not possible

GHG evaluation -- results

However …

- Made carbon calculator to “give an impression” of GHG savings given *modal shift target*



GHG calculator

- Assumes increase in cycling leads to decrease in driving and public transport use
- Based on data from German transport surveys
- Data needed: city population, baseline modal split, target share increase for cycling
- Accuracy improves by using local rather than default data (GHG performance of local public transport and car fleet, average daily trips/inhabitant, etc.)

Hypothetical example: Tartu, Estonia

- Used modal split data from EPOMM and population from Wikipedia
- Then forecast GHG reductions for three scenarios

	1. Business as usual	2. Moderate cycling promotion	3. Aggressive cycling promotion
Modal shift	**1 percent**	**5 percent**	**10 percent**
Increase in cycling trip lengths	**20 percent**	**25 percent**	**30 percent**

Example: Tartu, Estonia

Results			
Emissions before	273 t CO_2/day		
	99,694 t CO_2/year		
Emissions after	Scenario 1	Scenario 2	Scenario 3
	240 CO_2/day	235	229
	87,608 CO_2/year	85,894	83,631
Reduction t CO_2 per day	33	38	44
Per year	12,086	13,799	16,063
By 2020 (7 years)	84,601	96,596	112,438

Conclusions

- Climate change argument for cycling promotion makes sense intuitively but data is missing
- For cities, best arguments are local benefits:
  - Health benefits for users
  - Cleaner air
  - Quieter, safer streets
  - More vibrant street life and commerce

Thanks for your attention!

- Greg Spencer – gspencer@rec.org
- Mobile 2020 – www.mobile2020.eu