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Factsheet

Improving non-motorized transportation

Wuppertal Institut

UN HABITAT
FOR A BETTER URBAN FUTURE

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This paper was prepared by:
SOLUTIONS project
This project was funded by the Seventh Framework Programme (FP7) of the European Commission

Berlin, 2017

This publication is part of the
UEMI project

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Berlin, 2017

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The project has received funding from the European Union´s Seventh Framework Programme and Horizon 2020 under the grant agreements no 604714 (SOLUTIONS) and no 723970 (FUTURE RADAR)

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Urban Electric Mobility Initiative (UEMI) was initiated by UN-Habitat and the SOLUTIONS project and launched at the UN Climate Summit in September 2014 in New York.
UEMI aims to help phasing out conventionally fueled vehicles and increase the share of electric vehicles (2-,3- and 4-wheelers) in the total volume of individual motorized transport in cities to at least 30% by 2030. The UEMI is an active partnership that aims to track international action in the area of electric mobility and initiates local actions. The UEMI delivers tools and guidelines, generates synergies between e-mobility programmes and supports local implementation actions in Africa, Asia, Europe and Latin America.

Solutions

SOLUTIONS aims to support the exchange on innovative and green urban mobility solutions between cities from Europe, Africa, Asia and Latin America. The network builds on the SOLUTIONS project and brings together a wealth of experience and technical knowledge from international organisations, consultants, cities, and experts involved in transport issues and solutions.

The overall objective is to make a substantial contribution to the uptake of innovative and green urban mobility solutions across the world by facilitating dialogue and exchange, promoting successful policy, providing guidance and tailored advice to city officials, fostering future cooperation on research, development and innovation.

Aims

SOLUTIONS_UEMI supports urban mobility implementation actions that contribute to the Paris Agreement and the New Urban Agenda.
Sustainable energy and mobility can make positive contributions to a number of policy objectives, nationally and locally. In particular in cities there is a great potential to create synergies between for example safety, air quality, productivity, access and climate change mitigation. A UEMI resource centre will provide opportunities for direct collaboration on projects focusing on sustainable urban mobility and the role e-mobility can play in it. The UEMI will pool expertise, facilitate exchange and initiate implementation oriented actions.
UN-Habitat, the Wuppertal Institute & Climate Action Implementation Facility jointly host the resource centre for the Urban Electric Mobility Initiative, aiming to bridge the gap between urban energy and transport and boosting sustainable transport and urban e-mobility.

In brief

Brief
Cyclists and pedestrians mix easily. Their speeds are not so different and cyclists can adapt their behaviour. Non-motorised transport infrastructure, which improves the safety and quality of journeys for cyclists and pedestrians, is a broad but important area for ensuring an accessible transport network with better quality of life.

Mostly, cities can mix both groups fully, but if an area has many pedestrians, a soft physical separation is preferred. The benefits for cyclists are routes with shortcuts and easy access to destinations in the area. On narrow streets, adjacent or shared-use paths for cyclists and pedestrians can provide a safe and comfortable solution.

Examples

Examples
On many city streets, space is constrained and it is not possible to accommodate everything and everyone. The first approach should be to try to free up space by reducing the room given to motorised traffic. This can involve rerouting car traffic and taking out a traffic lane; removing a parking lane; or calming traffic to make mixing possible. Another approach, for cyclists, is to provide an attractive alternative cycling route, but if this imposes significant detours, cyclists will keep using the narrow street.

Allowing cyclists to share space with pedestrians in relatively car-free zones avoids detours and makes destinations more accessible to cyclists. Where space is limited along road sections, sharing space with pedestrians can improve safety and comfort for both user groups. Measures can include (for cyclists) clear lanes, cycle streets and cycle parking; (for pedestrians) clear pavements and pedestrian crossings; and joint infrastructure such as signs and maps; shared paths,crossing points and bridges/tunnels; traffic calming; and lighting.

Results

Results
The benefits in investing in improved non-motorised infrastructure are broad and the supporting infrastructure can boost the numbers of people walking and cycling. Moreover, as walking and cycling are important links in the multimodal transport network and key elements of a car-light lifestyle, they improve the integration of transport networks.

Good infrastructure also helps improve the safety of vulnerable road users particularly in relation to motorised road users but by reducing crime. The benefits are also economic: evidence suggests that in areas with many pedestrians and cyclists, businesses experience higher sales figures. In addition, as walking and cycling is good for health, employees take fewer sick days and are more attentive. In addition, in areas with good cycling access, property values are higher.

Finally, more people walking and cycling means that there are fewer vehicles on the streets, which reduces pollution.

Technical and financial considerations

Technical and financial considerations
Outside of built-up areas, there are few pedestrians and often no pavements. When there is a separated cycle lane, pedestrians often like to use this instead. Because of the low numbers of pedestrians, this causes no real problems. Inside built-up areas, however,

there are more pedestrians. They typically walk on a network of pavements and crossings, separated from traffic, including bicycles.

Allowing cyclists access to car-free zones (also called pedestrianised or vehicle-restricted areas), helps them avoid detours and gives them easy access to central urban destinations. When space is restricted, providing fully separate infrastructure for cyclists and pedestrians may not be possible, as cities need to respect quality design criteria. Sharing space between cyclists and pedestrians may be the best available option. The safety risk of mixing cyclists and pedestrians is much lower than mixing either with motorised vehicles.

However, if pedestrian densities are too high, sharing becomes ineffective, also for cyclists. Specialists generally recommend considering sharing space at values not above 200 pedestrians per hour per metre of available profile width.

Policy/Legislation

Policy/Legislation
In general, cities should improve walking and cycling infrastructure in line with a Sustainable Urban Mobility Plan or walking/cycling strategy rather than in isolation. Legally, cyclists can be given access to restricted areas simply by adding a sign, in the same way that residents or delivery vehicles can be exempted.

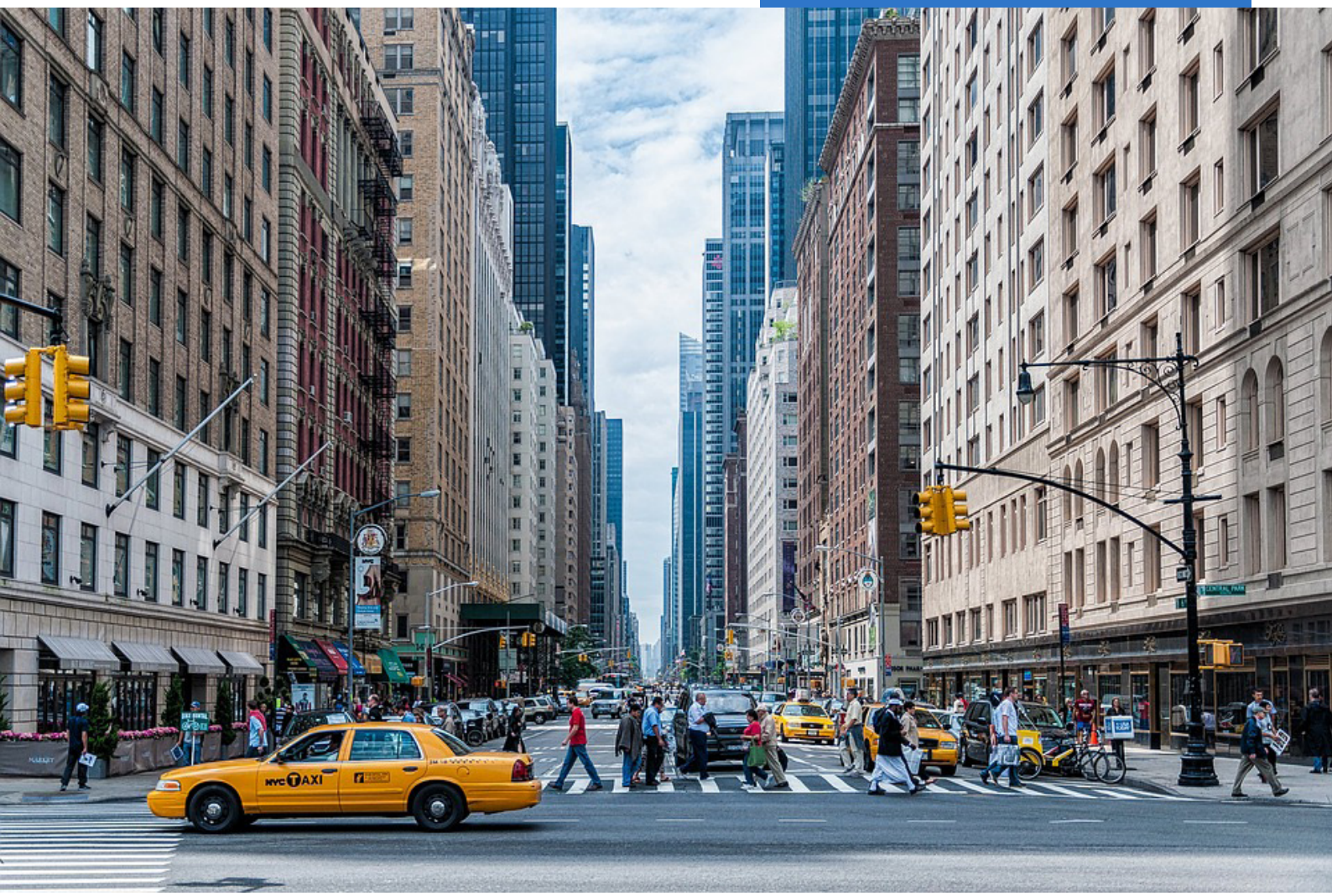
In most countries, cyclists must give way to pedestrians in car-free zones. The status of the area is therefore quite clear to all users. Still, some areas might require additional signs to encourage cyclists to behave as guests. In some countries, such as France, cycle access to car-free zones is the legal default option, unless there are duly justified counter arguments. There, cyclists must drive at walking speed.

Institutions

The lead agency for improving non-motorised transport is usually the city or local transport authority with support from walking/cycling associations or charities. National policy frameworks are important with regard to infrastructure design and implementation.

Transferability

Many cities in Europe and other parts of the world have implemented such solutions and they can easily transfer to other cities. This infrastructure is extensively replicable and is a core characteristic of a town or city with a sustainable transport system.



Case Study:
Helsinki's pedestrian and cyclist pathway (FINLAND)

Case Study: Helsinki´s pedestrian and cyclist pathway (Finland)

Context

In 1894, the Finnish authorities constructed a railway line on the outskirts of Helsinki. The infrastructure required the excavation of an uncovered canyon some 7 metres deep and almost a kilometre and a half long. Helsinki subsequently expanded, surrounding the cutting, which, although crossed by seven bridges, still constituted a gash in the urban fabric.

In 2008, the cargo port moved to the Vuosaari neighbourhood and work began on a new residential zone in Länsisatama. The railway connection, which transported goods between the port and the station, was no longer necessary. Helsinki created "Baana" in its place - a pathway for pedestrians and cyclists that leads from the Western Harbour area to Kamppi and the Töölö Bay.

In action

Baana is 1.3 km long and on average 15 m wide (it is 34 m at its widest). The pedestrian and bicycle lanes run side by side and are identified by different colours: the bicycle lane is paved with reddish-brown asphalt and the pedestrian lane with black asphalt. In addition to the end points, bicycle access to Baana is allowed by four evenly spaced ramps and pedestrian access by five staircases from streets. There are also accessible entrances at both ends and in the middle of the course.

Baana is a pleasant green route serving Helsinki, with 180 trees, 4,000 bushes and plenty of owers. The rugged look is retained as a reminder of the corridor's history; the massive rock and stone walls anking Baana date back 100 years. Lights, benches and environmental art improve safety and comfort, and there are facilities for various activities such as basketball, table tennis and pétanque (boules).

Together with the bicycle service centre in Kamppi, Baana - which cost around €5m ($5.5m) - further promotes cycling in Helsinki, facilitating city centre cycling. The service centre o ers bicycle storage, rental, instant repair and information.

Results

Baana is not just a path to cycle through as fast as you can, but also a place to relax and play. A sculpture in the shape of the word “Helsinki” carved out of concrete is popular with skaters. Between June and December 2012, around 320,000 cyclists plus an unknown number of pedestrians used it. From January to April 2013, nearly 46,000 cyclists used Baana plus pedestrians. An analysis after the reconstruction showed that drivers are observing the speed limits in the streets. The project won the Best Traffic Project prize in the Ways Through Towns competition.

Results

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More Information

Implementing Partners

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