Toolbox for Mobility Management

- Introduction to Mobility Management
- Manual for kindergartens & schools
- Manual for companies
- Manual for urban developments

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Content

0 Preface

0.2 Goal of this publication

0.2 About cities.multimodal

0.3 Imprint

A Introduction to Mobility Management

A.3 What is Mobility Management?

A.4 Who can get involved in Mobility Management?

A.7 Understanding behaviour change

A.9 General approaches to Mobility Management

A.13 Basic tools of Mobility Management

B Manual for kindergartens and schools

B.3 Why is there a need for action?

B.5 What are the opportunities for Mobility Management in kindergartens and schools?

B.7 Who are the stakeholders in Mobility Management at kindergartens and schools?

B.9 Tips for implementation

B.10 Activity ideas

C Manual for companies

C.3 Why is there a need for action?

C.4 What are the opportunities for Mobility Management at companies?

C.5 Who are the stakeholders in Mobility Management at companies?

C.7 Tips for implementation

C.8 Activity ideas

D Manual for urban developments

D.3 Why is there a need for action?

D.4 What are the opportunities for Mobility Management in urban developments?

D.5 Who are the stakeholders in Mobility Management in urban developments?

D.6 Tips for implementation

D.7 Activity ideas

Goal of this publication

The Toolbox for Mobility Management provides knowledge on the topic of Mobility Management as an important approach to promote sustainable and multimodal travel behaviour. The publication presents easily understandable information and practical advice to those who want to introduce Mobility Management to their institutions. The Toolbox addresses stakeholders at kindergartens, schools, companies and urban developments in order to motivate them to set up local projects. One dedicated chapter for each target group informs about objectives and tips for engaging in and implementing Mobility Management. Numerous activity ideas, most of them developed and tested within the **cities.multimodal** project, facilitate readers to develop and implement Mobility Management concepts and activities.

About cities.multimodal

The EU co-funded project **cities.multimodal – urban transport system in transition towards low carbon mobility** (2017–2021) brought together cities, NGOs, universities and other expert partners to facilitate the use of sustainable mobility solutions for citizens in the Baltic Sea Region.

Various activities and measures were implemented to promote walking, cycling, public transport and shared mobility services as more favourable alternatives to private car use.

Within **cities.multimodal**, partner cities developed and applied contemporary sustainable urban mobility approaches. The knowledge gained and activities implemented within these projects can be transferred to other cities. This includes the development of a pilot area Sustainable Urban Mobility Plan (SUMP) and the planning and construction of multimodal mobility points. In addition, partner cities tested and implemented campaigns and innovative ways to involve citizens. Mobility Management concepts were developed with and for different stakeholder groups.

Find out more about the project on www.cities-multimodal.eu.

Imprint

This publication was developed within the European project **cities.multimodal** – **urban transport system in transition towards low carbon mobility**, co-funded by the European Regional Development Fund. The Toolbox for Mobility Management is the final output of Work package 3 – Mobility Management – Changing behaviour from driving a car towards using environmentally friendly transport modes.

The **cities.multimodal** consortium consisted of the following partners: Hanseatic and University City of Rostock (DE), German Cycling Association Schleswig-Holstein (DE), Technical University Berlin – Centre for Technology and Society (DE), Karlskrona municipality (SE), Kalmar municipality (SE), Aarhus municipality (DK), Riga City Council (LV), City of Gdansk (PL), the Polish Union of Active Mobility (PL), City of Vilnius (LT), Vilnius Public Transport (LT), City of Tartu (EE), Union of the Baltic Cities Sustainable Cities Commission (FI), Institute of Baltic Studies (EE), Pskov City Administration (RUS), Guldborgsund municipality (DK)

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union.

Contract:	**cities.multimodal** – Urban transport system in transition towards low carbon mobility Project no. R072
Title:	Toolbox for Mobility Management
Version:	April 2021
Project Management:	team red Deutschland GmbH, Benjamin Techen
Authors:	Verena Engel, Katja Hericks, Tobias Kipp
Other Authors:	Lisa Wiechmann (Hanseatic and University City of Rostock) Claus Koellinger (FGM), Christian Bitter (stattbau)
Contributors:	All project partners
Layout:	Typografie und Produktion, Christin Müller, Leipzig
Cover picture:	© Polish Union of Active Mobility

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ADFC Schleswig-Holstein: B.11
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City of Pskov: B.18, B.19
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Polish Union of Active Mobility: Titel, B.1, B.3, B.4, B.5, B.6, B.16, B.17
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Introduction to Mobility Management

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In this chapter, the fundamentals of Mobility Management will be presented. The topic will be introduced by describing its overall purpose and stakeholders. Since Mobility Management generally aims to change mobility patterns, it is essential to also understand the basic principles of behaviour change. In order to facilitate the successful implementation of Mobility Management activities, we outline how behaviour change is related to general approaches of Mobility Management. Building on this, we discuss some basic tools that can be applied directly to assist in introducing Mobility Management activities.

- **What is Introduction to Mobility Management?**
- **Who can get involved in Mobility Management?**
- **Understanding behaviour change**
- **General approaches of Mobility Management**
- **Basic tools of Mobility Management**

What is Mobility Management?

The following section provides a first overview on the topic of Mobility Management. In light of the fact that the need for action is generally accepted, we set out to define the topic and its objectives.

Background

Transportation and mobility are critical parameters influencing the health of our living space, our economy, and ourselves. Traffic causes the consumption of resources; the emission of CO_2 and noise; the modification of landscapes so that roads, bridges and railroads can be built; and high spending of both public and private budgets. What is more – and maybe even more important – traffic affects our mood, well-being and quality of life: We want to move safely and fluently on city roads; we need to know our loved ones are safe on their way to work or school; we meet in restaurants with outdoor seating next to the kerb; we swelter in the summer heat in cities full of concrete, tar, and cars; we breathe city air when we go for a run or walk after a long day in the office; and we are surrounded by the sounds of traffic – sometimes even when we lie in bed at night and need to recharge our batteries. Transportation is all around us and our mobility choices will be key if we want to transform our cities into healthy living spaces in the long run.

Objective

We make decisions about how to get to work, dinner, shopping or the gym every day. Many people choose a means of transport by default – since our mobility behaviour is part of our daily routine.

The impact of mobility choices on ourselves and our surroundings, however, varies for different modes of transportation. The private automobile, for instance, due to its flexibility and capacity to carry loads and passengers, is necessary for some people with certain jobs, or with physical or other limitations. However, with so many alternatives around, the remaining majority has no need for private cars. The overuse of the car is a major cause of stress, noise, pollution, costs, and a lack of (green) space in our communities that can be avoided so that happier and healthier cities can emerge. It is, therefore, necessary to encourage, enable, and equip citizens to adapt their mobility choices towards using healthier and more efficient modes. This is where Mobility Management starts.

Definition

Mobility Management is the act of planning, steering and controlling predominantly non-constructional activities to enhance mobility amongst citizens while reducing the negative impacts of transportation on the environment, the economy, and society. It is also known as *Transport Demand Management* (TDM), indicating that demand orientation is at the core of Mobility Management activities. Understanding people's travel needs and how they make mobility decisions is the foundation for convincing people to use the transportation infrastructure in place efficiently, so that alternatives to driving a car are naturally encouraged. This also means that the availability of infrastructure, such as a comprehensive network of public transit, pedestrian and cycling facilities, is a prerequisite. Mobility Management enhances their optimized utilisation through information, communication, education and incentives for users, the organization of services, and the coordination of partners.

Who can get involved in Mobility Management?

Mobility Management is most effective when a large number of transport users can be addressed simultaneously. This is the case for organizations that are involved in planning activities or the provision of transportation infrastructure and services, as well as all organizations, locations and events that generate traffic. The latter include educational institutions, public and private employers in certain sectors, housing districts, entertainment, and other tourist and leisure destinations. In this publication, the focus lies on three main institutional groups: kindergartens and schools, companies, and urban developments. While the potential of the former lies in the young age of the user group, thus increasing prospects of successful behavioural change, the latter two can act as catalysts for sustainable mobility due to their scope and close connection to their urban and regional environments.

Mobility Management in kindergartens and schools

The introduction of Mobility Management in kindergartens and schools benefits the health and development of children, but also increases safety and comfort in traffic for all road users, as well as the quality of urban life. The table below briefly presents how stakeholders at kindergartens and schools benefit from Mobility Management activities and how they are involved.

Stakeholder	Interests	Role
Children	Health; Safety; Autonomy	Behavioural change; Future ambassadors
Parents	Children's health and safety	Role models; Reduction of parent taxis
Teachers	Integration of Mobility Management into curricula	Implementation; Pedagogical knowledge; Link between management, children and parents
School or kindergarten administration	Social responsibility on institutional level	Facilitators: Funding, organizational structure, permits
Municipalities	Safe, accessible, healthy and liveable urban spaces	Integration of Mobility Management into Sustainable Urban Mobility Plans (SUMPs), urban planning and city budget; Enforcement of traffic rules
Residents	Reduction of local traffic congestion, air and noise pollution	Passive
Non-governmental organizations	Environmental protection; Public health and safety	Knowledge and experience supply; Funding partners

Mobility Management in companies

Companies play an important role in the generation of traffic through commuting employees, business travel, commercial transportation, and factory traffic.

The table below briefly presents how stakeholders at companies benefit from Mobility Management activities and how they are involved.

Stakeholder	Interest	Role
Employees	Health; Well-being; Work-life balance; Travel costs	Behavioural change
Mobility Manager	Corporate social responsibility	Development and implementation of Mobility Management strategy; Link between employees and employers
Human Resources department	Administration; Retention and recruitment of employees	Management of staff privileges, communication, and policies
Facility Management	Cost savings	Infrastructure changes on company premises
General Management	Increased productivity; Cost savings; Lower sick rates; Corporate image	Facilitators: Commitment, organizational structures, funding; Role models
Municipalities	Safe, accessible, healthy and liveable urban spaces; Attractive business location	Provision of infrastructure and mobility services; Incentives
Transport providers	Increased passenger numbers	Provision of public transportation; Corporate pricing and ticketing
Service providers	Values; Business model	Expertise; Technological, technical and infrastructure solutions
Residents	Reduction of local traffic congestion, air and noise pollution	Passive

Mobility Management in urban developments

Urban housing and building structures and infrastructure are crucial components of traffic avoidance and mobility access. Mobility Management in newly developed areas, hence, offers many benefits for stakeholders. These are shown in the table below, along with their involvement in the process of Mobility Management.

Stakeholder	Interest	Role
Future residents	Car-reduced living; Quality of life; Balance between mobility costs and costs of housing	Adaptation of mobility patterns
City council	Safe, accessible, healthy and liveable urban spaces; Expansion of urban transport system	Initiation; Setting targets for urban (mobility) development; Legal development framework
City administration	Synergies of cooperation	Planning and implementation of Mobility Management; Cooperation among different departments
Development organizations and investors	Higher revenues through more floor space and higher quality; Lower costs through provision of less parking; Attractive location – mobility as Unique Selling Proposition (USP)	Construction; Involvement in Mobility Management planning process
Mobility providers	Increased usership	Provision of public transportation and mobility services; Involvement in planning process
Neighbours	Additional mobility services; Reduction of local traffic, air and noise pollution; Provision of amenities, community and recreational spaces	Local knowledge; Involvement in planning process

Understanding behaviour change

While transportation planning aims to provide transportation infrastructure and services, Mobility Management focuses on bringing together these assets and their users to encourage more sustainable mobility behaviour. In order to do so, it is essential to understand behaviour change in humans, its catalysts and barriers.

The evolution of routines

From a biological perspective, the mere existence and survival of humanity is rather incredible: Humans hardly have any instincts, they have no specialized abilities for fight or flight – they can neither run nor climb very fast nor do they have dangerous teeth or claws –, it takes a year before they can literally stand on their own feet and many more until they can proverbially do so. Yet, humankind is quite a success story, as we have survived against all odds and inhabit the whole planet. This is due to the fact that we have turned all of our disadvantages into advantages: The human being is so unspecialized that it can learn practically anything. Our prolonged adolescence gives us the time to do so. Throughout our lives, our lacking instincts are substituted by habits and institutionalized routines. The most important benefit of these habits is that our everyday needs are fulfilled with little cognitive and physical effort, setting mental capacity free for luxurious actions such as arts, science, business, education and many more. Thus, routines and 'old habits' are a prerequisite for both life as we know it and for innovation.

Shaping routines early on

If we look at the development of new routines in life, we find that the majority of them were established in childhood. This sounds more or less obvious but should not be underestimated – routines we develop during childhood become our second nature, allowing us to perform them without thinking. If you want to test it yourself: Try to explain how a shoelace is tied. You will probably not be very successful, yet your fingers can do it in seconds while your thoughts turn to something else.

Establishing mobility routines in children

This is the reason why addressing Mobility Management to kindergartens and schools is so important. If people do not learn how to ride a bike or a children's scooter in public safely at a young age, they will be afraid of riding a bike in general traffic when they are older. They need to internalize traffic rules, react to red lights 'instinctively', develop intuition to estimate the speed and directions of other traffic – all of this, in order to develop a habit that enables their 'gut' to react faster than they can make any conscious decision. This is a very long process, so the earlier it starts, the safer the children will feel and be in later life. While parents may think they can protect their children by driving them around, they impede an important learning phase and increase later risks. In addition, children who grow up riding a bike in a safe way, accompanied by parents and teachers, will enjoy the exercise and the freedom of movement sustainably.

Creating new routines in adults

Against the above-mentioned backdrop, at a later stage of life, behavioural change is anything but simple. A shift to ecological mobility, however, requires a major behaviour change – especially by those people who are used to driving everywhere. Yet, changing mobility behaviour is not as black and white as irrational and indolent 'old habits' versus rational and moral new behaviour. Instead, new mobility concepts have to take routines seriously, respect the underlying need to simplify travel, and create new routines. We have too many things that require our attention in everyday work and family life, we cannot afford to use too much energy for getting back and forth.

Merits and demerits of routines in multimodal mobility

In this respect, multimodality has a great disadvantage to unimodal traveling: It requires more active planning. Especially for cities we know well and routes we travel regularly, we have very stable and old habits that are hard to break. Yet, this can be a good starting point for developing new routines that eventually become stable. A qualitative study by

team red in Hamburg showed that after four to six weeks, participants who had been used to driving a car to work and grocery shopping adapted to car-free commuting and changed their shopping routines from weekly household shopping to daily small stops by bike. Even though it was not yet a habit, it eventually became a routine, which no longer demanded cognitive resources and extra energy. This shows that, if we can manage to bridge the gap between old and new habits and make it as small and easy to cross as possible, we can even take advantage of routines.

Changing routines towards more sustainable mobility behaviour

The closer a new behaviour is to old routines, the easier and less energy-intensive the new behaviour appears, and the more clearly we see the benefits. This means that changes in behaviour can take place faster and cause less disruption.

Clear benefits

Benefits that are seen as rather long-term or on the global scale (such as climate change) are less likely to produce enduring behaviour changes than short-term effects such as reducing costs or gaining quality time. Effects like better air quality and less noise pollution in the city are nested in between. While big goals like preventing climate change or less smog can motivate change and become stable, changes in deep-rooted habits require small but visible regular successes.

Similarities between old and new habits

GPS navigation systems for cars work similar to a co-driver who reads a map and guides the driver. This similarity is part of their success story. The same holds true when we want a car owner to switch to more eco-friendly modes. We also need to use what is called “path dependency”: Modes that follow a well-known route lower the resistance threshold and simplify a change. This alone reduces the energy people need to switch their behaviour from the very outset.

Energy-efficient behaviour

Most important is to keep new modes as simple as possible to avoid resistance and challenges along with mistakes and resulting frustration. Mobility as a Service (MaaS) is a concept that combines the premises of multimodality in a single app: by creating mobility points in the urban landscape, where modes and safe, simple routes are suggested to simplify the change. Protected bike lanes and good public transport not only improve safety, they also (thereby and beyond) save energy and concentration. As driving a car through a congested city requires quite a bit of concentration as well, energy-saving modes can add the benefit of being more relaxed to the little successes that are needed for stable change.

General approaches to Mobility Management

Internalized habits and fear of change require targeted approaches that create an internal will and external incentives to adapt behaviours, while at the same providing necessary structures that encourage behaviour change. In this chapter, basic principles for a change towards more sustainable mobility are presented.

- *Raise awareness: Information and communication*
- *Support behaviour change: Organization and coordination*
- *Engage the target group: Participation*
- *Motivate the target group: Challenges and incentives*
- *Empower interested people: Experience and service*

Raise awareness: Information and communication

For mobility or urban planners, the importance of mobility and its effects on the environment, society and economy are omnipresent. Many other people, however, are not so aware of how their personal mobility contributes to their environment's long-lasting health and well-being. In order for people to engage with the topic of mobility and change their behaviour towards more sustainable transport, it is essential that they understand why and how their personal choice of transport matters.

Promote the topic in public

Make the topic present! Make sure the promotion of sustainable mobility reaches the broad population. Since different demographic, socio-economic or cultural groups may be present in different areas of the city and use different media channels, it is essential to use different communication channels in order to reach as many people as possible. While a retired technician would use newspapers and radio to stay informed, the young professional relies on their mobile phone for every aspect of work and everyday life, and the single parent of three may be so busy handling life that they have no energy left over to pay attention to any media. Campaigns to raise awareness of the impact and alternatives of mobility are most successful if they reach all sorts of people in their usual environments. Means of transporting a message include newspaper articles, commercials on TV and radio, social media activities, posters throughout the city, newsletters by employers, lectures at schools, leaflets and stickers in shops and public amenities, car-free days, and information booths at city events.

Create a personal connection

People often do not feel concerned because they do not see themselves as part of the problem or the solution. Inserting local facts, studies and figures into mobility campaigns and illustrating behavioural patterns and their impacts can foster engagement with the topic through a more personal connection. People have to understand the effects on themselves, their families, neighbours, favourite coffee shop and co-workers when they drop off their child at kindergarten using a bike trailer rather than a car. What is more, linking awareness-raising campaigns to local infrastructure and available means of transport fosters a sense of urgency and feasibility.

Call to action

Besides providing information on why and how mobility matters for each and every one of us, people also need to understand how they can do their part. Specific suggestions for subliminal adaptions of mobility behaviour make it easier for people to change their behaviour one step at a time. Ideas include encouraging people to bike to a local shop for smaller purchases and head out for dinner on foot, organizing car-free days, and including public transport vouchers in the price of concert tickets.

Support behaviour change: Organization and coordination

With mobility gaining in significance, lots of new solutions are being developed, creating trends. One major trend regarding mobility is changing the organization of transport. In many places, there are sufficient transportation options to get people around without driving a car, as well as technology that decreases the need to travel, especially during peak times. However, access to these options is sometimes limited. Urban planners, transport pro-

viders and other innovative minds are continuously coming up with solutions to make traffic more efficient by means of technology, regulations, and by modifying ownership structures.

Establish points of contact and information

Key to making alternative transportation available to the broad public is providing points of contact and informing everyone about mobility options. Structures and venues such as public or corporate travel advice services, or contact persons for mobility campaigns can be established. Thus, transport users can receive assistance to reduce their car usage or find the most practicable and economic way to travel, and uncertainties can be addressed. Such structures can take several forms: Public mobility service centres, mobility managers in private institutions, or the training of hospitality personnel to provide mobility information to customers. Besides personalized support, general travel information like transport networks, mobility services, timetables, and real-time data can be presented via a range of technologies including stationary displays, brochures, mobility apps and websites.

Reduce the need to travel

As technologies advance, and adequate organizational structures are established to enable their usage, telecommunications can often replace physical trips. Some of the most common examples are the digitalization of administrative citizen services, the introduction of physically mobile and temporally flexible working practices, substituting physical meetings for digital ones, changing medical consultation procedures, and adjusting opening hours of local amenities. Often, this requires changes to local, corporate or public regulations.

Match transport supply and demand

Through sharing concepts, people who have similar travel plans can travel together and on demand. The total number of means of transport can decrease without reducing personal mobility. The main principle behind mobility sharing is that a shared car can replace many privately-owned vehicles. This means that the overall number of cars can be reduced. Shared scooters and bikes can add to more flexible and sustainable mobility, and even reduce the costs to users, who are no longer responsible for maintenance. Sharing structures can be established on an institutional level, by introducing city-wide car sharing or by integrating car sharing services into corpo-

rate mobility policies. In addition, private rides can be pooled with the help of matching services.

Engage the target group: Participation

Including the public in the process of developing and implementing mobility concepts is key to having them actively engage with sustainable mobility and Mobility Management, as well as to increasing public acceptance of mobility options and infrastructure changes. What is more, taking user needs into account and centring Mobility Management around them increases the chances of lasting success.

Find out what people need

Creating targeted mobility concepts requires an understanding of not only what stakeholders want, but what they need. By asking them about their needs, ideas, and barriers to travelling, different stakeholder interests can be brought together while actively involving the public in the planning process. This involvement is crucial to eventually identify with and accept proposed changes to mobility options and transport infrastructure. Suitable methods for participation must be applied, however. If people feel they are not qualified to answer questions, or learn that their ideas cannot be considered in further planning, participation efforts might lead to distrust in planners and engineers. Besides, public participation should always be accompanied by making appropriate information on the subject freely available and clearly communicating expectations. Examples of participation are surveys, interviews, co-creation workshops, mobility days, and online tools to gather geo-information on the shortcomings of local transport infrastructure.

Make them responsible

Participation as an approach also includes the active involvement of stakeholders within the implementation of Mobility Management. For one, stakeholders like business owners, schoolchildren, parents, police, engineers, employees, managers, etc. can represent their peers within working or advisory groups. On the other hand, individuals can take on the responsibility for organizing their peers, motivating them, and sharing information, or dedicating their time to volunteering tasks.

Motivate the target group: Challenges and incentives

Competitions and challenges often speak to our egos and motivate us to meet or exceed external expectations and be better than our peers. This attitude, along with prospects on rewards, is amongst the fundamentals of motivating people to change their behaviour.

Challenge the target group

The idea behind competitions and challenges is that participants are motivated to change their travel behaviour because they want to prove to themselves and to others that they can perform well – or better than others. Competitions and challenges are often embedded in a gamification approach, adding components like typical graphics, achievement levels, rewards, or high scores – and most importantly, the element of fun. Common examples of gamified campaigns are school classes competing against each other for the highest level of active mobility and movement, companies competing against each other in bike-to-work campaigns, and employees logging and being judged for their mobility choices. Depending on the target group, technological applications are often an important component of gamification concepts.

Offer rewards

While the human drive to play and compete is sometimes enough to facilitate behaviour change, rewards can boost gamification efforts. Gathering points of different kinds is usually one of the key ingredients of gamified campaigns. The desire to achieve a high number of points is amplified if certain point scores are linked to rewards. The type of rewards varies from physical goods such as cycling lights, locks, or clothing; to participation in events like a sponsored breakfast or party; service vouchers for bicycle repairs; days off for employees; or donations to a good cause. Bigger prizes like bikes or holiday vouchers can also be included in a raffle for all participants. Sometimes even just a welcome kit is an effective motivator.

Bring money into play

Aside from games and challenges, the mere prospect of earning or saving money is a great incentive to change behaviour. According to the concept of push and pull measures, this can work in two directions: sustainable travel can be rewarded with financial benefits, and disadvantageous mobility behaviour can be discouraged by pricing measures. The former is often put into practice by sponsoring or subsidizing public transit tickets, or offering tax deductions for commuting by bike. Parking management and pricing or congestion charging are examples of the latter, reallocating the external costs of less sustainable behaviour to their originators. Push and pull measures work best in combination.

Empower interested people: Experience and service

In addition to creating an internal need for action within the target group, engaging its members with the topic, motivating them to change their behaviour and providing organizational structures that foster sustainable transport, it is also important to empower people by providing them with knowledge, experience, and the necessary equipment.

Introduce alternative mobility

New, innovative forms of mobility like sharing concepts or vehicles of micromobility are evolving rapidly. Prominent examples are bike and car sharing systems, e-scooters, cargo bikes, car-pooling apps, and sometimes even autonomous shuttles. The first step to creating a new habit is conjuring up the energy to try out a new activity. This initial energy goes into doing research on the availability of new systems, setting up account or payment structures to use them, and committing time to test them out. The effort alone is often enough of a barrier to keep people from trying out new forms of mobility. Hence, establishing formats where people can come into contact or take these first few steps in a community and under supervision can promote the utilisation of alternative mobility. An example for a suitable format is a 'market of opportunities', where new, sustainable vehicles can be tested and mobility and service providers are on site, helping potential customers to get started with sharing services or other alternative mobility options.

Offer safety training sessions

'It's like cycling – once you've learned it, you'll never forget how'. This assertion is often used to describe the learning curve of activities that may initially be hard, but after a while feel very natural to us. However, there are many people who have not yet reached the level where cycling feels natural to them, just as they have different levels of comfort when biking or walking. While transport infrastructure such as protected bike lanes, wide sidewalks and safe intersections encourage people of all comfort levels to walk or bike, safety trainings are essential to get them out there in the first place, and onto different types of infrastructure beyond that. They can be offered as part of municipal mobility events, corporate mobility days, school education, or educational programs by advocacy groups. Not knowing how to use bike racks on buses or trains is another deterrent for multimodal and sustainable mobility; this is a skill that can be integrated into training formats.

Ensure access

Beyond knowing about alternative mobility and being familiar and confident with its usage, access to these forms of mobility has to be ensured. On the one hand, this refers to economic access: Is the bike sharing system only accessible via credit card? Does the pricing structure of public transit take less wealthy individuals into account? How can access to private bikes be increased? Then, there is access on the level of the access systems such as apps, terminals, service centres – which have to offer a user experience and design that grant universal access to a range of people including the physically disabled, those without a smartphone, and people who do not speak the local language. Lastly, offering access to amenities like bike maintenance tools and services, bike parking, storage facilities or showers is also key to encouraging people to use sustainable forms of mobility. All of these aspects should be considered in Mobility Management concepts.

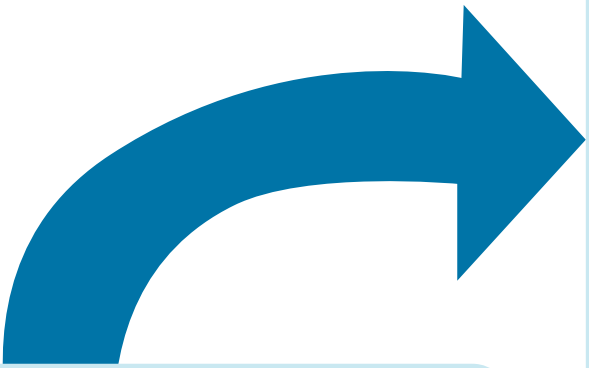
Basic tools of Mobility Management

*With Mobility Management being applied in **cities. multimodal** partner cities and many other cities around the world, a number of concepts, tools and experiences have been generated. In this chapter, tried and tested basic tools and templates are presented to promote future Mobility Management projects.*

- *Roadmap for Mobility Management*
- *Preparatory analysis*
- *SWOT analysis*
- *Checklist for planning Mobility Management activities*

Roadmap for Mobility Management

Following a structured process for the planning of Mobility Management in institutions such as schools, kindergartens, companies, and within urban development enables the implementation of a holistic Mobility Management concept. The following roadmap depicts all strategic phases and suggested steps and activities that should be put into practice in every Mobility Management project.



Start At the beginning of each Mobility Management project, it is essential to define the project scope and the project goals in alignment with all stakeholders. The clearer and more precisely the objectives and courses of action are determined, the more smoothly the project can run and bring lasting success.

Steps, tools and activities:

- Establishment of contact
- Kick-off workshop
- Definition of objectives and fields of action

Analysis Developing solutions to existing situations and problems requires a holistic understanding of available infrastructure and services as well as underlying mobility needs, behaviour patterns and interrelations. The better project planners understand the people who are addressed and involved with Mobility Management measures, and the more planners tailor solutions around their needs, the more effective the efforts can be in the long term.

Steps, tools and activities:

- Preparatory analysis
- User group surveys and interviews
- Analysis of sources and destinations of traffic
- Availability and quality of existing transport infrastructure
- Benchmarking
- Potential assessment
- Definition and implementation of immediate measures

Concept design Based on a comprehensive understanding of identified shortages and potentials, targeted solution approaches and measures can be developed. Implementation is facilitated by a high level of integration with all stakeholder interests and available resources, and by inclusion of the resulting Mobility Management strategy.

Steps, tools and activities:

- Definition of target group
- Development of measures and activities
- Co-creation workshop
- Assessment of economic and ecological effectiveness
- Cost-benefit analysis
- Definition of performance indicators

Implementation Goals pursued with Mobility Management can be realized in the implementation phase. Its success and effectiveness are highly dependent on the quality of the preceding strategic phases.

Steps, tools and activities:

- Planning of changes, activities and pilot projects
- Selection of service providers
- Procurement

Closing Observing and capturing the progress and results of the Mobility Management measures is crucial to promote public acceptance, future or successive proposals, replications, and knowledge generation through the project. This cements the transmission and longevity of Mobility Management efforts.

Steps, tools and activities:

- Monitoring & Evaluation
- Performance review
- Final report

Preparatory Analysis

Through the preparatory analysis, the status quo of Mobility Management in the project area can be assessed, including the corresponding framework conditions. The results serve as a means to identify needs for action and present a basis for the development of Mobility Management solutions. Among others, the status quo of multimodal transport and Mobility Management can be assessed and target groups for Mobility Management measures identified. Within **cities.multimodal**, the analysis allowed for basic comparisons and knowledge exchange between the partner cities. This guide gives an overview of data and information gathering for the preparatory analysis.

Methods

Different, complementary methods of data gathering can be used in the preparatory analysis in order to get insights on different levels and capture the status quo of mobility in the project area holistically:

- **Desktop research:** In the first phase, general, quantitative data on the city and pilot area along with existing transport infrastructure can be collected. Required data is often available publicly or can be obtained from municipalities or experts.
- **Expert interviews and workshops:** More detailed information on stakeholders such as target groups of Mobility Management can be gathered through qualitative research. Open-ended interviews or focus groups open the space for previously unknown issues and in-depth information as well as different positions on controversial questions.
- **Target group surveys:** Building on the results of the first two phases, travel behaviours and needs of the target group can be evaluated through qualitative, closed-end surveys or interviews. This enables planners and Mobility Managers to identify barriers and opportunities of behavioural change on behalf of more sustainable mobility.

Target group surveys

Examples for specific questions to be asked in target group surveys are provided in the table below. Please note that the questions serve as a general guide and inspiration, and will have to be adjusted to your specific situation and institution. It is also recommended to consult experts to help you with the conduct and evaluation of the survey.

Exemplary questions regarding mobility in the pilot institution	**Answer format**
How long is your way to school, or work (one-way)?	Multiple choice: 0–2 km; 2–5 km; 5–10 km; 10–25 km; more than 25 km
Which travel mode do you usually use on your way to school, or work? *Alternatively, you can ask how often each travel mode is used to get to school or work in summer and winter, on an ordinal scale (almost daily – 1–3 days per week – few times a month – rarely – almost never)*	Multiple choice / checkboxes: Walking; Cycling; Car driver; Car passenger; Public transit; Other
Why do you prefer to use this mode?	Multiple choice / checkboxes: Time; Costs; Environment; Health; Fun; Flexibility; Safety; Comfort; Option to transport goods; Parking possibilities

How many times a week do you travel to your institution for school or work?	Ordinal scale: From 1 to 5 days a week
Are you able to participate in school or work activities from home?	Binary: Yes/No
Would you like to participate in school or work activities from home on one or more days a week?	Binary: Yes/No
How satisfied are you in general with the travel mode you usually use to get to school, or work?	Star rating: From 1 (★☆☆☆☆) to 5 stars (★★★★★)
How would you rate the punctuality of your usual travel mode to school or work?	Star rating: From 1 (★☆☆☆☆) to 5 stars (★★★★★); optional: comment field
How safe do you feel in your usual travel mode to school or work? *You can ask this question separately for each travel mode.*	Star rating: From 1 (★☆☆☆☆) to 5 stars (★★★★★); optional: comment field
How would you rate the availability of public transit between your home and your school or work?	Star rating: From 1 (★☆☆☆☆) to 5 stars (★★★★★); optional: comment field
How would you rate the affordability of public transit in your city?	Star rating: From 1 (★☆☆☆☆) to 5 stars (★★★★★); optional: comment field
If you come to school or work by car, why do you use it?	Multiple choice / checkboxes: Transportation of goods / shopping; Transportation of other people; Shortest travel time; Public transit is not sufficient or available; Convenience; Habit; optional: comment field
If you do not use a bike or e-bike on your way to school or work, what keeps you from using it? *This question can be asked for bike and e-bike separately.*	Checkboxes: Distance too long/short; Weather; Physical effort; Lack of safety; Lack of bicycle infra-structure; Lack of safe bike lanes; Lack of bicycle parking; Lack of safe bicycle parking; Combined use with public transit not possible or difficult; Lack of showers/lockers at school or work; No bike available; No e-bike available
How likely would you use another option to get to school or work? *You can ask this question separately for different (sustainable) transport alternatives such as car-pooling, walking, cycling, cargo-bike, using an e-bike, using an e-scooter, etc.*	Star rating: From 1 (★☆☆☆☆) to 5 stars (★★★★★); optional: comment field
What would need to be improved for you to use another option to get to school or work? *You can ask this question separately for different (sustainable) transport alternatives such as car-pooling, walking, cycling, cargo-bike, using an e-bike, using an e-scooter, etc.*	Comment field

SWOT analysis

Through the analysis of strengths, weaknesses, opportunities and threats regarding Mobility Management, information gathered in interviews and surveys can be processed and structured. This provides valuable information on possible catalysts and challenges and helps with the development of approaches for action. The following paragraphs aid with the classification of information as internal (strengths and weaknesses) and external (opportunities and threats).

Strengths

Strengths are currently existing internal circumstances that act in favour of the implementation of Mobility Management. A school having sufficient qualified and motivated staff to realize Mobility Management activities, for instance, should be categorized as a strength.

Weaknesses

Equivalent to strengths, project weaknesses are currently existing internal circumstances that negatively impact planned Mobility Management activities. Additional efforts may be required to overcome the weaknesses. A common example is the lack of financial resources.

Opportunities

Opportunities are expected positive future outcomes of a project which are dependent on external factors. In light of Mobility Management, they are mostly related to the goals and objectives of a project. In order to realize their full potential, it is essential to know existing weaknesses and threats and minimize them, as well as to build on prevalent strengths.

Threats

Threats are possible and undesired negative consequences of a project related to the organizational environment and its future development. They can often be mitigated or eliminated by identifying them and taking appropriate actions.

Template

The following table can be used to summarise and structure information gathered within the preparatory analysis.

Strengths	**W**eaknesses
Opportunities	**T**hreats

Checklist for planning Mobility Management activities

Once the status quo of Mobility Management in your project area and stakeholder needs are clear, a checklist can help keep track of concept development and activity planning of Mobility Management measures.

Planning Mobility Management Activities

Title of the activity	
Target group	Institution • **Kindergartens and schools** • **Companies** • **Urban developments**
	Number of premises:
Approaches and components	• **Raise awareness –** Information and communication:
	• **Support behaviour change –** Organization and coordination:
	• **Engage the target group –** Participation:
	• **Motivate the target group –** Challenges and incentives:
	• **Empower interested people –** Experience and service:
Goal	
Background	
Implementation	
Resources needed	Budget • **Project:** • **Other:**
	Human Resources • **Internal staff:** • **External experts:** • **Stakeholders:**
Time frame	
Main outputs	
Success measurement	
Potential for learning or transfer	
Sources of information	
Next steps	

Manual for kindergartens and schools

cities. multimodal

Interreg Baltic Sea Region

EUROPEAN REGIONAL DEVELOPMENT FUND

EUROPEAN UNION

In this manual, the demand for Mobility Management in kindergartens and schools will be outlined. This includes general and specific problems that can be addressed by Mobility Management, as well as opportunities for its implementation. To illustrate the overarching impact and extent of these Mobility Management activities, the roles of all stakeholders will be described briefly. The activity ideas presented may serve as inspiration to get started on Mobility Management projects.

- **Why is there a need for action?**
- **What are the opportunities for Mobility Management in kindergartens and schools?**
- **Who are the stakeholders in Mobility Management at kindergartens and schools?**
- **Tips for implementation**
- **Good practice examples**
  - Mobility workshops for students
  - Children's Green Footprint campaign
  - Bicycle trailer rental at kindergartens
  - Active kids on scooters
  - 'Pskov City for kids' – Children's perspectives in urban planning
  - 'Best in the vest' – Sustainable mobility campaign in schools

Key for activity ideas

Costs

●○○ up to 5,000 €
●●○ up to 15,000 €
●●● more than 15,000 €

Implementation period

●○○ up to 5 days
●●○ up to 2 months
●●● more than 2 months

Planning intensity

●○○ up to 2 planners
●●○ up to 4 planners and stakeholders
●●● involvement of more than 5 planners and stakeholders

Why is there a need for action?

Primary issues that are addressed by Mobility Management in kindergartens and schools are the state of children's health in Europe, as well as global environmental threats such as climate change.

The state of children's health in Europe

In Europe, the health of our youngest inhabitants is at risk, mostly because of the effects of unsafe and unhealthy environments and a lack of physical activity. Urban roads are often dangerous places for children, who are some of the most vulnerable users, and a source of air and noise pollution. About one third of the causes of child morbidity (children up to the age of 18) are related to injuries and environmental contamination[1] – largely because of traffic. Much of the transport infrastructure in place is not suitable for use by children. As a result, children are often not allowed or able to move through cities autonomously. Hence, parents tend to drop off and pick up their children to and from kindergarten, school and play by car, even though travel distances are often short. The underlying problem is thus intensified and a vicious circle created.

Children's lack of autonomy is a barrier to their development, since they cannot actively participate in public life and learn to make decisions. Further, barriers to moving around their neighbourhoods independently also imply an aggravation of the already prevalent lack of physical activity by young people. This results in higher levels of obesity amongst children and poorer coordination skills, which, in turn, further increase the risk of accidents.[2]

1 WHO Europe: Children's Environment and Health Action Plan for Europe, 2004

2 Eltis: Mobility Management at Kindergartens to promote cycling in Graz (Austria), 2014

Environmental damage

At the same time, the 'parent taxis' add even more trips by motorized vehicles, increasing traffic congestion, the emission of CO_2 and fine dust pollutants, and sound pollution. What is more, higher levels of motorized traffic decrease road safety for all road users, especially cyclists and pedestrians.

Hence, empowering children to use active and sustainable transportation is beneficial for children, their parents and everyone else as well. In addition, children play an important role in the cultural shift towards more sustainable mobility behaviour. Young people growing up with an awareness of mobility and transportation issues facilitate a shift towards sustainable mobility – amongst other things because they give a strong emotional impetus to their parents and the broad public to rethink their mobility behaviour.

What are the opportunities for Mobility Management in kindergartens and schools?

The need for action to reduce the strain on the environment presents opportunities that can be realized by introducing Mobility Management in kindergartens and schools.

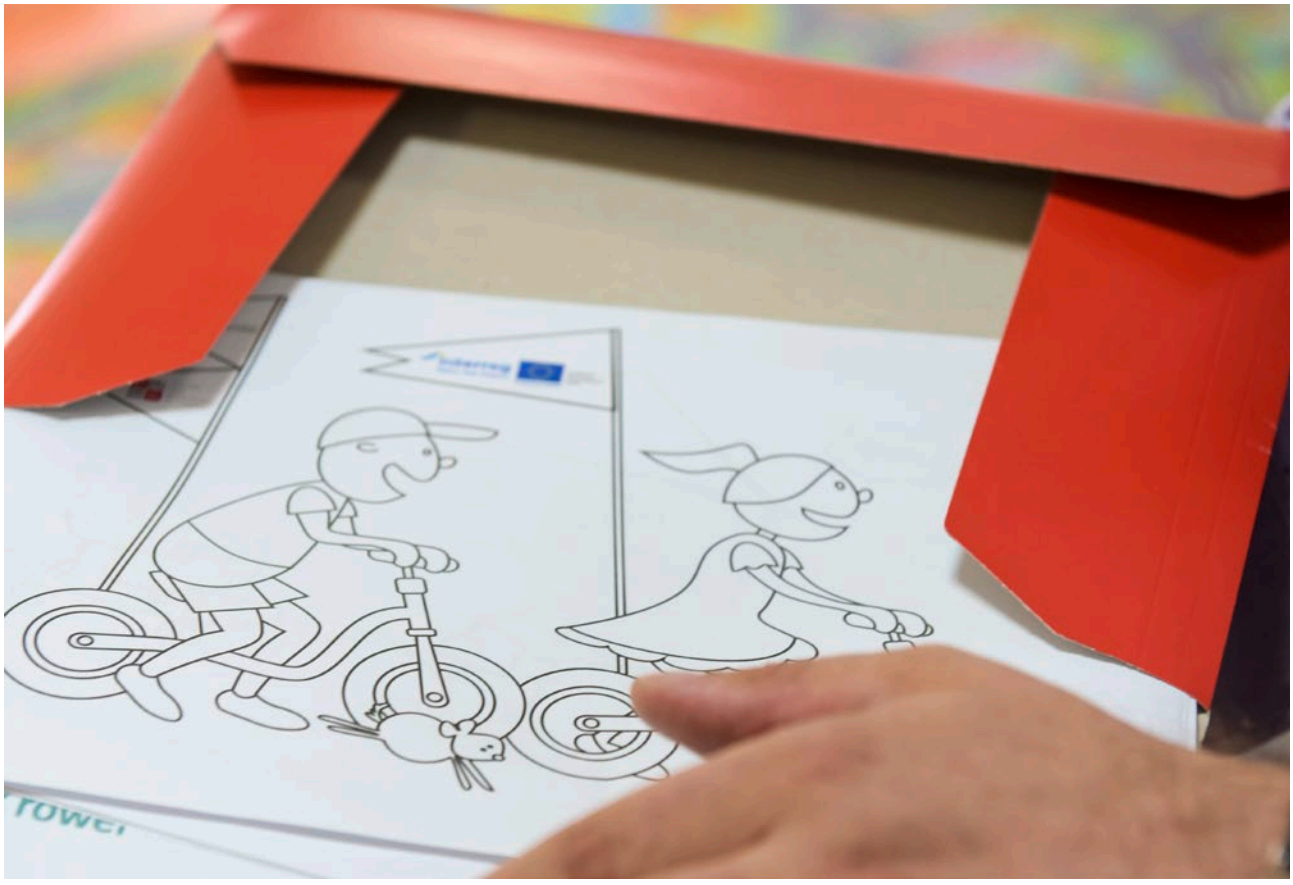
Safety

Imagine a single kid biking to school between the many automobiles driven by parents who drop off their children while rushing to arrive at work on time right afterwards. A completely different scenario would be a single car carefully navigating between kids biking and walking to school in order to drop off a child with a broken leg. Without getting into the empirical details, this is a perfect illustration of 'safety in numbers': With higher numbers of people cycling and walking, traffic accident rates decrease.[3] The not so obvious part of this effect is that traffic safety increases not only for people walking and biking, but for all road users. Mobility Management measures for kindergartens and schools target the problem of parent taxis to reduce the amount of motorized traffic in front of kindergartens and schools. Besides improving the safety of school surroundings through communication, awareness, and infrastructural measures, this fosters safe behaviour by children biking and walking to school. Through Mobility Management activities, young people are educated about traffic and safety rules, and their physical abilities to move in public spaces by foot or on bike are trained and improved.

Health

Integrating physical movement into the daily routine of children implies higher levels of activity in their lives. Building an active lifestyle and motor development from early on has many benefits for the health of our youngest generation. As the physical abilities of children to get to school or kindergarten on foot or bike are trained, there is less need for parents to

3 Jacobsen, P: Safety in numbers: more walkers and bicyclists, safer walking and bicycling (2003).



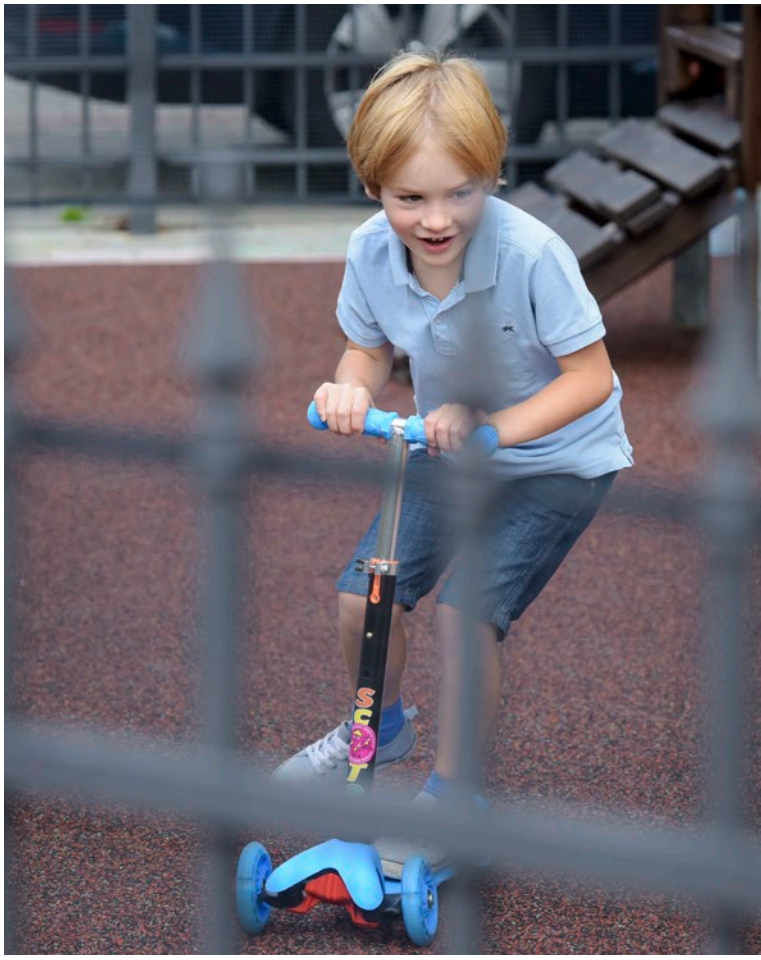
drive them. A lower level of motorized traffic in front of kindergartens and schools also implies a lower level of traffic throughout neighbourhoods and cities. Related health benefits like lower exhaust emissions, lower disturbance and stress levels through traffic noise, and more space for green areas, social interaction, and play, are thus available not only for children, but for all city residents.

Quality of Life

Quality of life and health benefits are closely linked. A higher quality of life through less traffic is even more tangible, however, with more immediate, visible and other directly perceivable effects. Besides, more liveable environments also benefit local businesses and urban development in general. Local shops, restaurants or cafés, for example, become more attractive with less traffic around them, creating vibrant neighbourhoods.

Social equity

For children, quality of life also increases with their level of autonomy. Being able to move through the neighbourhood on their own means having access to education, play, and services – regardless of their social and economic background.



Who are the stakeholders in Mobility Management at kindergartens and schools?

The following chapter provides an overview of groups and individuals who are involved in Mobility Management in kindergartens and schools, directly and indirectly, actively and passively. Being aware of their roles and interests is an essential part of understanding the value of Mobility Management.

Children

Pre-schoolers and schoolchildren are the main target group of Mobility Management activities in kindergartens and schools. Improving their health and safety and fostering their autonomy through the promotion of sustainable and active transportation is important for their development and equal opportunities in the future. Integrating awareness of mobility and sustainability into early education is also a valuable contribution to the challenges of excessive individual motorized traffic. At younger ages, kids are more curious and faster to adopt habits like using sustainable transport. The emotional effect of their positive contribution to their environment is also a great incentive for parents and the broad public to rethink their own mobility behaviour. Developing skills and habits is best achieved by combining specific tasks with fun and play.

Parents

As caregivers, parents are ultimately the ones who enable their children's sustainable transport behaviour. Parents trusting in their children's abilities, committing to support traffic education and scooter or cycling training and practice, as well as functioning as role models, are crucial for shaping their children's attitudes towards physical activity and mobility. An important goal of Mobility Management in kindergartens and schools is to create awareness and favourable conditions that convince parents not to drive their kids to school or kindergarten and enable or empower them to get there on their own.

Teachers

Like parents, teachers have an active role in promoting sustainable mobility around kindergartens and schools. They know about the children's learning behaviour and can make a major contribution to the development of Mobility Management concepts.

With their experience, they can provide knowledge on how to integrate Mobility Management into existing curricula, educational materials and teaching methods. Above all, they are often involved in the implementation of Mobility Management campaigns, workshops, training, and competitions. Beyond that, they are an important link between kindergarten and school administration, kids, and parents.

Kindergarten or school administration

To facilitate Mobility Management at a school or kindergarten, the administration of these institutions must be willing to cooperate on the subject. Support can be provided in the form of funding, permits for Mobility Management activities, participation in the development of a Mobility Management plan, or appointing a mobility manager. A mobility manager promotes sustainable mobility within the institution, acts as a spokesperson and plays a key role in coop-

erating with municipal units, parents, and children. The commitment of an institution's administration is a success factor for effective Mobility Management in kindergartens and schools.

Municipalities

Municipalities are in charge of creating safe, healthy, liveable and well-functioning spaces for all of their residents. On the one hand, this means that Mobility Management for schools and management is part of their responsibilities. On the other hand, they can benefit from solutions that create more liveable environments, increase the health and safety of residents and relieve the burdens placed on local infrastructure. City authorities and city hall employees can increase the scope and reach of Mobility Management for kindergartens and schools by integrating Mobility Management activities into SUMPS, urban planning, and the city budget. Hence, they can initiate Mobility Management in kindergartens and schools and provide necessary resources and allowances that support its implementation.

Residents

Changes to school and kindergarten premises and the mobility behaviour of their users have an impact on the surrounding neighbourhood and its inhabitants. The envisaged reduction of parent taxis around kindergartens and schools implies lower levels of local traffic and its negative impacts such as noise and pollution.

Non-governmental organizations (NGOs)

NGOs with the goal to protect the environment, to create safer and more liveable cities, or to promote active and sustainable transportation can help with the planning and implementation of Mobility Management activities in kindergartens and schools. They can supply their knowledge and experience on the subject; workshop, training and education materials; personnel resources; and political advice. Further, they may be entitled to governmental or EU subsidies and hence serve as funding partners.

Tips for implementation

Mobility Management in kindergartens and schools was implemented in various partner cities as part of the **cities.multimodal** project. Lessons learnt during planning, implementation, and post-processing that are specific to Mobility Management in kindergartens and schools are summarized below, providing valuable tips for those wanting to introduce such activities.

1 **Have a contact person:** Ideally, this is a single, designated person at the school or kindergarten who can motivate and coordinate other staff and parents. This can be an engaged teacher, a parent representative or a staff member. It is important to get in touch with them well in advance. Curricula are sometimes difficult to change throughout the school year.

2 **Listen to teachers and staff:** They know the children and their parents and how to interact with them best.

3 **Know the circumstances:** Investigate the current situation in terms of traffic, motivation and barriers. Targeting a campaign to specific needs increases the likelihood of permanent positive change.

4 **Support teachers and staff:** They often have a high workload, a strict curriculum, and are not prepared to educate students on mobility issues – outside help and materials are often welcome.

5 **Engage parents:** Having parents on board is essential, but sometimes difficult. Data and statistics are effective persuasive tools – but the opinions of their own children are even more powerful. In addition, showing appreciation for their opinions by involving them in projects and decisions makes them more invested.

6 **Make it official:** Involving municipalities and reaching out to the public creates a sense of relevance, urgency and validation.

7 **Make it simple:** Create an understanding for the topic and the importance to act accordingly through transparency, a clear message and visual elements.

8 **Make it fun:** A element of competition is always welcome – children enjoy competing against each other. They are also creative and open to changes. Give them space to create ideas, explore and be curious; they might offer original ideas that parents are not able to generate.

9 **Create incentives:** Many of the planning and communication activities are new to the students and can be daunting. In addition to competitions, extra incentives like a field trip or a free municipal service can be included.

10 **Leave something permanent:** Whether you make a small change in the infrastructure or create a piece of art, it is a good idea to leave a positive lasting reminder of the Mobility Management effort.

ACTIVITY IDEA

Mobility workshops for students

Traffic safety – Awareness – physical activity

Goal

The objective of this measure is to raise awareness among students about sustainable means of mobility and mobility behavior. With a mobility workshop the students get a playful access to sustainable mobility with the focus on safety and fun. The children also have a multiplier function and can inspire their families to sustainable mobility.

Promoter

ADFC Schleswig-Holstein e. V.

User groups

School students from grade 3 and 4
(Age 9–11), teachers

Materials

bicycle parcours (*self made): bicycle seesaw*, elements for the skill exercise*, traffic cones, bicycle helmets, floor chalk
information material about new mobility forms, e. g. walking busses and cycling busses

Resources

Implementation period	●○○
Planning intensity	●●○
Costs	●○○

Background

The report by the German Federal Statistical Office reveals that students and kids are not safe on their way to school or kindergarten. One reason are so-called parent taxis. In order to ensure that their kids arrive at school or kindergarten safely, parents drop them off and pick them up by car. A higher number of cars at school or kindergarten surroundings makes the way to school less safe for children walking or cycling. Many parents do not allow their children to ride bicycles, because they believe that these are not safe to drive. At this is where the workshop starts. The workshop focuses – unlike offers from the police- on fun and safety.

Implementation

- **Establishment of contact to** schools via local partners in public administrations or parent representatives.
- Create your **workshop concept** with experts tailored to local circumstances, school form and grade. Be practical and let the children learn through play. The concept needs to be adjusted either the school is in a town or in the countryside.
- A detailed **preparation** is needed. Get in touch with the teachers before the workshop day and make an on-site inspection in the school to get known with the areal. Talk with the teachers about their students, what is to consider about their classes.
- **Support teachers** with information on the workshop, material provision, and volunteers from local mobility and environmental organizations.
- Make an **evaluation** after the mobility workshops. Speak with the children and the teachers about their experiences and let it flow in future workshops.

Contact

ADFC Schleswig-Holstein e. V.
info@adfc-sh.de
+49 431-63 190

ACTIVITY IDEA

Children's Green Footprint campaign*

Physical activity – Campaign – Competition approach

Goal

The campaign aims to promote active and sustainable travelling on the daily way to school. A gamification approach is applied to animate kids to go to school by foot, bike, scooter, bus or tram.

Resources

Implementation period	●○○
Planning intensity	●○○
Costs	●○○

Promoter

City of Rostock, DE

User groups

School students, age 6–13; Teachers; Parents; Kindergarten children

Materials

Sticker album & stickers per student; Teaching guide; Poster; Certificate

* Original title: ZOOM campaign – kids on the move

Background

Initiated in 2002 by the Climate Alliance, the campaign invites kindergarten children and school students in cities all over Europe to make their daily trips in a climate-friendly way. During one or several activity weeks, children collect so-called Green Footprints for every trip to school made on foot or by bike, skater, bus or tram. Kindergartens and schools collect these footprints and hand them over to the Climate Alliance. At the end of the year, the total amount of all collected Green Footprints in Europe will be handed over to the participants of the UN-Global Climate Change. This is the children's contribution to protect the climate.

Implementation

- Get in touch with kindergartens and schools in your cities and inform about the campaign idea
- Decide for one or several activity weeks – the longer, the better the learning effect
- Inform the Climate Alliance about participating institutions from your city and order the campaign materials (sticker album, stickers etc.)
- During the activity weeks, teachers can deal with the topics of sustainable mobility & climate protection using the teacher's material
- Organize an event/celebration to hand over the collected footprints in your city; invite the mayor or other important persons; hand over certificates to every class/school
- Submit the footprints to the Climate Alliance, together with pictures and stories from your activity weeks

Contact

Hanseatic and University City of Rostock
Mobility department
Lisa Wiechmann
lisa.wiechmann@rostock.de
+49 381-381 7354

ACTIVITY IDEA

Bicycle trailer rental at kindergartens

Bicycle trailers – Cargo bikes – Rental campaign

Goal

Through the bicycle trailer rental campaign, motorized parent taxis should be reduced and awareness about mobility patterns raised by offering an alternative solution to cars by dropping off kids at kindergarten by bike.

Resources

Implementation period	●●○
Planning intensity	●●○
Costs	●●○

Promoter

City of Gdańsk, PL

User groups

Kindergarten parents

Materials

Bicycle trailer sets; Flyers; Posters; U locks

Background

Gdansk, like many other metropolitan cities, faces the problem of parent taxis, which are one of the major causes of rush-hour traffic jams. The city is actively cooperating with kindergartens and primary schools, providing infrastructure, educational and promotional materials as well as launching campaigns to encourage active travel and multimodal transport choices.

Implementation

- **Contact** to kindergartens willing to participate through kindergarten managers
- **Procurement** of 3 bike-trailer sets and U locks, including insurance against damage and theft
- Preparation of **contracts for free rentals** with simple rules
- Employment of **service provider** for technical service and training workshops on site
- Preparation of **information and promotion** materials and activities, such as leaflets, posters, website articles, communication via social media, press releases in local print media
- **Transfer** of bicycle trailers to kindergartens for one month each
- Campaign **evaluation** via satisfaction surveys

Contact

City of Gdańsk

Lucyna Tomczak,
lucyna-tomczak@gdansk.gda.pl;

Magdalena Szymańska,
magdalena.szymanska@gdansk.gda.pl

ACTIVITY IDEA

Active kids on scooters*

Scooters – Physical activity – Traffic safety

Goal

The campaign aimed to promote active mobility and physical activity among kindergarten kids and their families, by providing kids with scooters and safety training so that they can get to kindergarten by active means of transportation.

Resources

Implementation period	●●●
Planning intensity	●○○
Costs	●○○

Promoter

Polish Union of Active Mobility (PUMA), PL

User groups

Kindergarten children, age 3–7

Materials

12 scooters per kindergarten; Informational material; Stickers; Colouring cards; Rental ledger

* Original title: Mobility Kindergartens – Active Kids (Mobility Points in Kindergartens)

Background

The main goal of the Polish Union of Active Mobility association is to support member local governments in improving conditions of active mobility and promoting its growth, i.e. all forms of meeting daily transport needs that are powered by natural human energy, such as biking or walking. One of the main focuses of the Polish Union of Active Mobility is on activities in the spheres of education that promote active mobility. In kindergartens, active mobility can be promoted from an early age, and the scheme of mobility points demonstrated.

Implementation

- **Kindergartens receive kid scooters** to rent out for free, thus creating local mobility points for kids
- **Rentals** intended for commuting to and from kindergarten are supervised by teachers and documented in a rental ledger
- **Scooter utilisation is promoted** by leaflets with stickers, colouring cards, information on the use and benefits of scooters, as well as the concept of mobility points
- Kindergartens are **certified as mobility points**

Contact

Polish Union of Active Mobility
facebook.com/polskauniamobilnosciaktywnej
info@mobilnosc.org
mobilnosc.org

ACTIVITY IDEA

‘Pskov City for kids’

Children’s perspectives in urban planning

Participation – User experience – Co-creation

Goal

The Master Class ‘Pskov City for Kids’ seeks to improve quality of life for children and young people by enabling them to move safely through city streets. In this project children are involved in urban planning and partnerships are built between different communities and organizations to make more informed decisions and design a city in which children have a place.

Promoter

City of Pskov, RU

User groups

School students, age 8–12 & 13–17

Materials

Maps; Paper; Crayons; Presentations

Resources

Implementation period	●○○
Planning intensity	●●●
Costs	●○○

Background

A lot of young people want to use bikes to move around the city. However, many parents do not let their children travel to school or friends by bike because they consider it unsafe. Children and those who look after them (parents, relatives, babysitters, caregivers and teachers) have unique knowledge of their area, dangerous and safe places, as well as where changes and improvements are needed first. Projects created jointly have an indisputable advantage – participants have a feeling of belonging and responsibility, vandalism is reduced, and new social ties emerge.

Implementation

- **Questionnaire** regarding places of attraction and the suitability of infrastructure for children and teenagers in the study area
- **Area mapping workshop** to identify the main hazards and opportunities, including a mental map, favourite places to walk, and boundaries
- **On-site investigation** of problematic and attractive areas with children and experts to identify the most pressing infrastructure shortcomings
- **Processing of results** in the form of needs included in the SUMP and technical specifications for architects and urban planners

Contact

Kristina Kobyz – Head of the Committee of Cross-border Cooperation and Tourism
Pskov City Administration
e-mail:pskovcbc@mail.ru
phone: 8 (8112)29-01-17

ACTIVITY IDEA

‘Best in the vest’

Sustainable mobility campaign in schools

Traffic safety – Competition approach – Physical activity

Goal

The objective of the campaign was to promote active mobility among children by providing them with safety equipment and training as well as safer infrastructure around school. Consequently, parents were to become more comfortable with having their kids in traffic. In turn, they were encouraged not to drive their children to school by car.

Promoter

City of Karlskrona, SE

User groups

School students, age 6–12; Parents; Teachers

Materials

One reflective vest per student; Stickers; Posters; Prizes for the winning class (study visit and cycling kit); Roller banners with the students’ quotes and drawings about mobility

Resources

Implementation period	●○○
Planning intensity	●○○
Costs	●○○

Background

The pilot school is situated in the middle of the city, surrounded by narrow streets. There are difficulties during rush hour when many parents leave and pick up their children. The areas surrounding the school are perceived as busy and somewhat unsafe for cycling and walking. The purpose of the partnership is to solve the transport puzzle around the school, as well as to educate the students and, hence, also reach out to their parents.

Implementation

- **Planning:** deciding on a theme, creating graphics and visuals, involving school staff by requesting their input and assistance with scheduling, preparing posters and giveaways, gathering information to present to students
- **Education:** Experts (project planners and traffic engineers) informing students about sustainable mobility, traffic rules and the importance of visibility when engaging in active mobility in the winter darkness through theoretical and practical lessons
- **Competition:** Classes competing against each other for cycling and walking most, using their new reflective safety vests (stickers added to the poster for each child completing the challenge)
- **Survey:** Gathering information regarding the mobility patterns of children and their parents
- **Interview:** Asking staff for their perspective of the school's mobility situation
- **Observation:** Conducted outside the school, counting how many children arrive by each mode of transport (car, public transport, walking or cycling)
- **Presentation** of survey results to teachers and parents to raise awareness (about the impact of driving kids to school), both verbally and in the form of a small, easily read report.
- Printing **roller banners** with the students' quotes and drawings about mobility, which were then placed at the school to serve as a reminder about the lessons they learned.

Contact

City of Karlskrona

Cajsa Andersson, Project planner
cajsa.1.andersson@karlskrona.se,
+ 46 455 322 125

Kenneth Gyllensting, Environmental strategist,
kenneth.gyllensting@karlskrona.se,
+ 46 455 303 283

Manual for companies

cities. multimodal

Interreg Baltic Sea Region

EUROPEAN REGIONAL DEVELOPMENT FUND

EUROPEAN UNION

Mobility Management for companies aims at changing mobility behaviour on the way to, within and at company locations. In the following chapter, the demand for Mobility Management in companies will be outlined. Underlying issues, opportunities and stakeholders will be described to holistically illustrate the impact of Mobility Management in companies.

- **Why is there a need for action?**
- **What are the opportunities for Mobility Management at companies?**
- **Who are the stakeholders in Mobility Management at companies?**
- **Tips for implementation**
- **Activity ideas**
  - Cycle Friendly Employer (CFE) certification
  - Bike to work all year!
  - Active officials leading the way
  - Bottom-up Mobility Management in the VEF district
  - Co-Creation Day
  - MOVE anchor project

Key for activity ideas

Costs

●○○ up to 5,000 €
●●○ up to 15,000 €
●●● more than 15,000 €

Implementation period

●○○ up to 5 days
●●○ up to 2 months
●●● more than 2 months

Planning intensity

●○○ up to 2 planners
●●○ up to 4 planners and stakeholders
●●● involvement of more than 5 planners and stakeholders

Why is there a need for action?

Companies are major traffic generators and commuting to and from work is one of the main causes of traffic and traffic-related problems. What is more, the majority of work commuters travels during rush hour, which aggravates issues such as traffic congestion and travel times, the stress of commuting, road safety risks, and peak levels of noise and air pollution.

Commuting as a cause of stress

There are significant differences between the negative effects of commuting for different modes. For instance, while cycling to work is a positive experience for many people, levels of physical and mental stress for car drivers are critically high. Traffic congestion caused and experienced by individual motorized travel increases travel times and limits the predictability of the commute.[4] Employees might be stressed by the possibility of arriving late at their workplace. In addition, long periods of sitting in constrained spaces cause tense muscles and contribute to a general lack of physical activity in society. Hence, commuting by car poses risks for personal and public health, as well as high external costs for cities and the environment.

Reduced citizen mobility through rush-hour congestion

Traffic congestion during peak hours due to commuting is a deteriorating factor for the urban mobility of road users. Avoiding trips and shifting transport modes to more sustainable ones are thus the main goals of Mobility Management for companies.

4 Gottholmseder et al.: Stress perception and commuting (2008).

What are the opportunities for Mobility Management at companies?

Due to their size, concentration of trip destinations and their access to commuters, companies can act as catalysts for sustainable transportation. Employees can be addressed fairly easily through their employers since they have a shared destination and similar working hours, and can be reached through existing information and communication channels at their workplace.[5] Besides commuting trips, Mobility Management also focuses on factory traffic and business trips. For all of these purposes, the share of biking, walking and public transit, and the utilization of private cars can be maximized, and emissions per car minimized through the development and implementation of Mobility Management strategies.

However, the positive effects of Mobility Management are not limited to benefits for public health, urban liveability and the environment. For companies, likewise, positive consequences arise by practicing Mobility Management:

Healthier and happier employees

By enabling and motivating employees to not commute to work by car, and instead ideally by active means of transportation, their health can be improved. Cycling to work has effects on general fitness, the immune system, and the cardiovascular system. It demonstrably enhances health and well-being – on average, employees cycling to work have a third less sick days than those who travel by car and the highest well-being score.[6] Not only does this imply lower operational costs for businesses, happy and healthy employees are also more motivated and productive at work and create a positive working atmosphere.

Favourable company image

Because of their social, environmental and economic impacts, companies assume a large share of societal responsibility. With pressing issues like climate change, public health risks and social imbalances,

external expectations towards their corporate social responsibility are increasing. Acting in a socially responsible manner includes the promotion of sustainable transportation through Mobility Management. Certifications like Cycle Friendly Employer demonstrate the importance of a company image incorporating sustainability. This is specifically significant for client and investor relations, as well as for attracting and retaining employees. Especially younger generations find it important that employers reflect their personal values and support a healthy and active lifestyle.

Reduction of costs

Companies can achieve cost savings through lower sick rates and lower employee turnover when implementing Mobility Management. In addition, employees arriving by bike instead of car require less space and less complex infrastructure. Installing and maintaining bicycle parking and facilities is less expensive than installing, organizing and maintaining parking spaces for cars.

5 EPOMobility Management: What is Mobility Management?

6 Cycle Friendly Employer Certification: Benefits for businesses.

Who are the stakeholders in Mobility Management at companies?

The following chapter provides an overview of groups and individuals who are involved in Mobility Management in companies, directly and indirectly, actively and passively. Being aware of their roles and interests is an essential part of understanding the value of Mobility Management.

Employees

Changing employees' attitudes and behaviour towards environmentally friendly mobility is one of the main objectives of Mobility Management for companies. Employees receiving support to determine and access the most sustainable, cost-efficient, quickest and most practical way to commute is an important component of corporate Mobility Management activities. Involving staff in the development of a Mobility Management strategy by holistically analysing their current travel patterns and mobility needs is key to the success of Mobility Management. The availability of transport modes that allow commuting to be combined with errands, picking up and dropping off children, or leisure activities, for instance, can have a significant effect on travel choices. Moreover, educating employees about the impacts of mobility, equipping them with necessary knowledge, training and infrastructure, and motivating them with gamification approaches and rewards for changes in behaviour are fundamental elements of Mobility Management in companies. It is often helpful to appoint a motivated individual or group of employee representatives who can drive change towards more sustainable mobility and motivate their colleagues.

Mobility Manager

Nowadays, companies often have dedicated positions or departments who are responsible for corporate sustainability or corporate social responsibility, including Mobility Management. An appointed mobility manager is involved in the development and implementation of a Mobility Management strategy. They are the key link between employees, the Human Resources department, management, and external service providers or consultants, and act as a spokesperson on the subject.

Human Resources Department

As the main administrative and developmental points of contact for employees, the HR department plays an important role within the development and implementation of a Mobility Management strategy. They manage staff privileges such as company cars or bikes, mobility budgets, incentives like days off, and policies on mobile working and business travel. All of the latter can be part of Mobility Management concepts and might require adjustments in the course of their implementation. Through mobile working policies or collaborations with co-working spaces, for instance, commuting trips can be prevented or shortened and hence traffic avoided. Oftentimes, they also take on the role of organizing communication and events. Besides their active role within Mobility Management, they also benefit from an appealing company image that bolsters employee retention efforts and gives them an edge in the war for talent.

Facility Management

Facility Management or Corporate Real Estate departments are responsible for managing company premises. Depending on the size, type and location of the company, this can include transportation infrastructure such as car parking, e-car charging stations, bike parking, bike repair stations, access to public transit, driveways and gateways, signage and wayfinding, as well as amenities like lockers and showers. Hence, Facility Managers play a vital role in procurement processes for mobility infrastructure on company premises. While being actively involved in the implementation of Mobility Management strategies, they also benefit from cost savings and higher efficiencies like a reduced need for car parking implicated by the objective of reduced car usage.

General Management

A company's management or steering committee has to approve and facilitate the introduction of Mobility Management activities. They do so by committing to the subject, creating necessary organizational structures and providing resources like personnel and funding for the realization of mobility concepts. Their function as role models is crucial for the success of change management activities. Even-

tually, they benefit from increased productivity, cost savings through more efficient infrastructure on the premises, and lower sick rates, as well as a favourable corporate image.

Municipalities

In order to enable employees to alter their travel behaviour, well-functioning transport alternatives need to be available. Gaps in public transit or bicycle networks are among the greatest barriers for switching from travel by private automobile to more sustainable means of transport. Municipalities are in charge of providing necessary infrastructure and mobility features such as additional bike lanes, mobility stations and shared mobility options for cars, bikes and scooters. Beyond that, they can create incentives for companies to launch Mobility Management activities or initiate city-wide campaigns like bike-to-work campaigns.

Transport providers

Just like municipalities, transport providers are in charge of providing attractive alternatives to car travel. By expanding public transit networks and schedules, and providing pricing and ticket options targeted to companies and their employees, they act as partners of Mobility Management strategies for companies. In conjunction with company communication, promotions and subsidies addressing employee travel behaviour, they benefit from increased usership for their services. In some instances, they cooperate with software providers in order to integrate their services into company mobility apps including the planning, booking, and payment of public transit trips.

Service providers

For companies to introduce Mobility Management, it is sometimes advisable to draw on the experience and network of external mobility experts for the development of a Mobility Management strategy and the planning and implementation of workshops and other events. Mobility Management concepts further often depend on the availability of technical, technological, and infrastructural solutions by (local) businesses such as car and bike sharing providers, MaaS solutions, and applications for carpooling or the management of mobility budgets. Local bike shops can act as partners for workshops or repairs for employees, or maintain company bike fleets.

Residents

The mobility behaviour of employees has an impact on the neighbourhood surrounding a company site. Residents can profit from lower levels of congestion, noise and air pollution.

Tips for implementation

Mobility Management in companies was implemented in various partner cities as part of the **cities.multimodal** project. Lessons learnt during planning, implementation, and post-processing that are specific to Mobility Management in companies are summarized below, providing valuable tips for those wanting to initiate such activities.

1 **Find motivated individuals**: Employee representatives and mobility managers can drive change and motivate others.

2 **Have management on board:** If the steering committee supports the Mobility Management concept and sets a good example of sustainable mobility, employees are more cooperative regarding change management measures. It is often helpful to start small – give companies a simple entry to the topic and focus on quick-wins first.

3 **Schedule enough time:** It takes time to have everybody on board and organized, analyse the status quo and involve stakeholders before getting started on the actual development of mobility concepts. Mobility Management activities will be most successful if there is ample time for all preparatory tasks.

4 **Get external advice:** Working with experienced service providers increases trust in the undertaking along with chances of success. Psychologic and sociologic experts can successfully run corporate mobility workshops.

5 **Use a bottom-up approach:** When implementing Mobility Management measures in companies, building on stakeholder interests and user needs is an effective way to ensure that they become and stay engaged.

6 **Integrate the concept:** Where possible, bundle Mobility Management and other corporate communications, and integrate Mobility Management into company events, structures and activities. This will make it easier for employees to follow and participate in the process. If Mobility Management activities are a part of a larger plan, they can contribute to a long-term development.

7 **Make it fun:** An element of competition is always welcome – people enjoy competing against each other and are sometimes willing to work hard for rewards and acknowledgement.

8 **Create incentives:** Days off, donations to a good cause and tax deductions are convincing tools to adjust employees' travel behaviour.

9 **Make it official:** Have your results be seen and heard by a variety of recipients. Involving municipalities and public transit providers, and reaching out to the public creates a sense of relevance, urgency and validation. Invite the press to raise public awareness.

10 **Leave something permanent:** Whether you make a small change in the infrastructure or create a piece of art, it is a good idea to leave a positive, lasting reminder of the Mobility Management effort.

ACTIVITY IDEA

Cycle Friendly Employer (CFE) certification

Certification – Bike to work – Corporate Social Responsibility

Goal

The Cycle Friendly Employer certification scheme was developed to establish a European standard for cycle-friendly companies. The certification is intended to help European companies to improve the situation for employees who cycle to work. To acknowledge for their efforts, these companies receive the 'Cycle Friendly Employer' certificate.

Resources

Implementation period	●●●
Planning intensity	●●○
Costs	●●○

Promoter

City of Gdańsk, PL

User groups

Employers; Employees

Materials

Roller banner; Leaflets; Website and manuals translated into Polish

Background

In order to give European companies a special incentive to focus more on bicycle friendliness, the consortium of the EU project Bike2Work, consisting of 12 partners including Austria, Belgium, Great Britain, Germany, France and others, has developed an EU-wide certification for bicycle-friendly companies, known as CFE certification. The project started in 2014 and ran until 2017. The main objective of Bike2Work is to encourage a significant modal shift from motorized commuting to cycling. Using a two-fold approach, it targets employees' behaviour through Bike2Work campaigns as well as employers by encouraging them to meet the needs of cyclists by making the company more bicycle-friendly.

Implementation

- **Identification and invitation** of companies to learn about the CFE certification scheme
- Company **self-evaluation** using a newly developed self-evaluation tool. It gives companies the possibility to establish whether a positive evaluation is possible. Once a company gathers enough points it can request an on-site audit. The result of the self-evaluation serves as the basis for the on-site audit.
- **Registration** for the national audit, including an online check to establish whether the company has enough points for a positive evaluation.
- **Improvement of cycling conditions** through six action fields defined by the ECF
- **On-site audit** through a national centre that will carry out the audit at the national level. Companies pay for the audits according to their size; however, in Gdańsk the audit for the top-rated bike-to-work companies was sponsored by the city.
- Companies receive a **CFE label and certificate** valid for 3 years. Each year the company has to submit a self-evaluation report showing that it is at least maintaining good cycling conditions.

Contact

City of Gdańsk

Lucyna Tomczak,
lucyna-tomczak@gdansk.gda.pl;

Magdalena Szymańska,
magdalena.szymanska@gdansk.gda.pl

ACTIVITY IDEA

Bike to work all year!

Bike to work – Gamification – Competition Approach

Goal

The campaign aims to encourage residents of Gdańsk to use bicycles as a means of commuting throughout the whole year, not only in warmer months but also in bad weather conditions, by rewarding cycling to work or university.

Promoter

City of Gdańsk, PL

User groups

Employees; University students

Materials

Marketing: flyers, posters, roller banner. Giveaways: citylight advertisements, sweets with campaign branding; Promotion: stands with coffee & tea;
Rewards: eco-bags, reflective bands;
Prizes: vouchers for bike shops, functional sweat-shirts

Resources

Implementation period	●●○
Planning intensity	●●○
Costs	●●●

Background

The campaign started in 2013 with the participation of Gdańsk in the European Cycling Challenge. Since then, Gdańsk has organised the Bike-to-work campaign every spring. However, in 2018, it was held in autumn for the first time in order to extend the cycling season. To promote the event, the City of Gdańsk ordered a specially designed 'Activy' mobile app, rewarding daily commuting to work or university.

Implementation

- **Development of concept** for technology-based campaign
- Definition of **app range of functions**: information on competition rules; trip logs converted to environmental impact and reward points; store to redeem bike accessories for collected points (water bottles, bike lights, bike locks, etc.); high score list of employers, universities, districts and private groups; badges earned; individual heat maps; problem reporting; route saving; compatibility with Strava
- Planning of **marketing activities** such as graphic design and branding, promotional materials, (social) media management, radio commercials, website, press releases and press conferences
- **Implementation** and continued support campaign through stalls with coffee and tea as well as giveaways

Contact

City of Gdańsk

Lucyna Tomczak,
lucyna-tomczak@gdansk.gda.pl;

Magdalena Szymańska,
magdalena.szymanska@gdansk.gda.pl

ACTIVITY IDEA

Active officials leading the way*

E-Scooters – Physical activity – Business trips

Goal

The campaign encourages employees at City Hall and other public institutions to use e-scooters for local business trips – also in combination with public transport – thus reducing the number of business trips by car and making them understand the need to improve the quality of local infrastructure for users of active mobility.

Resources

Implementation period	●●●
Planning intensity	●●○
Costs	●●●

Promoter

Polish Union of Active Mobility (PUMA), PL

User groups

Public service employees

Materials

E-scooters; Branding material; Instructional posters

* Original title: “Mobile Office – Active Office”, promotion of two-wheel vehicles/scooters to employers

Background

The main goal of the Polish Union of Active Mobility association is to support member local governments in improving conditions of active mobility and promoting all ways to meet daily transport needs that are powered by natural human energy, such as biking or walking. City officials play a crucial role in the development of active urban mobility since they are involved in decision-making, urban planning, and politics – and also serve as role models.

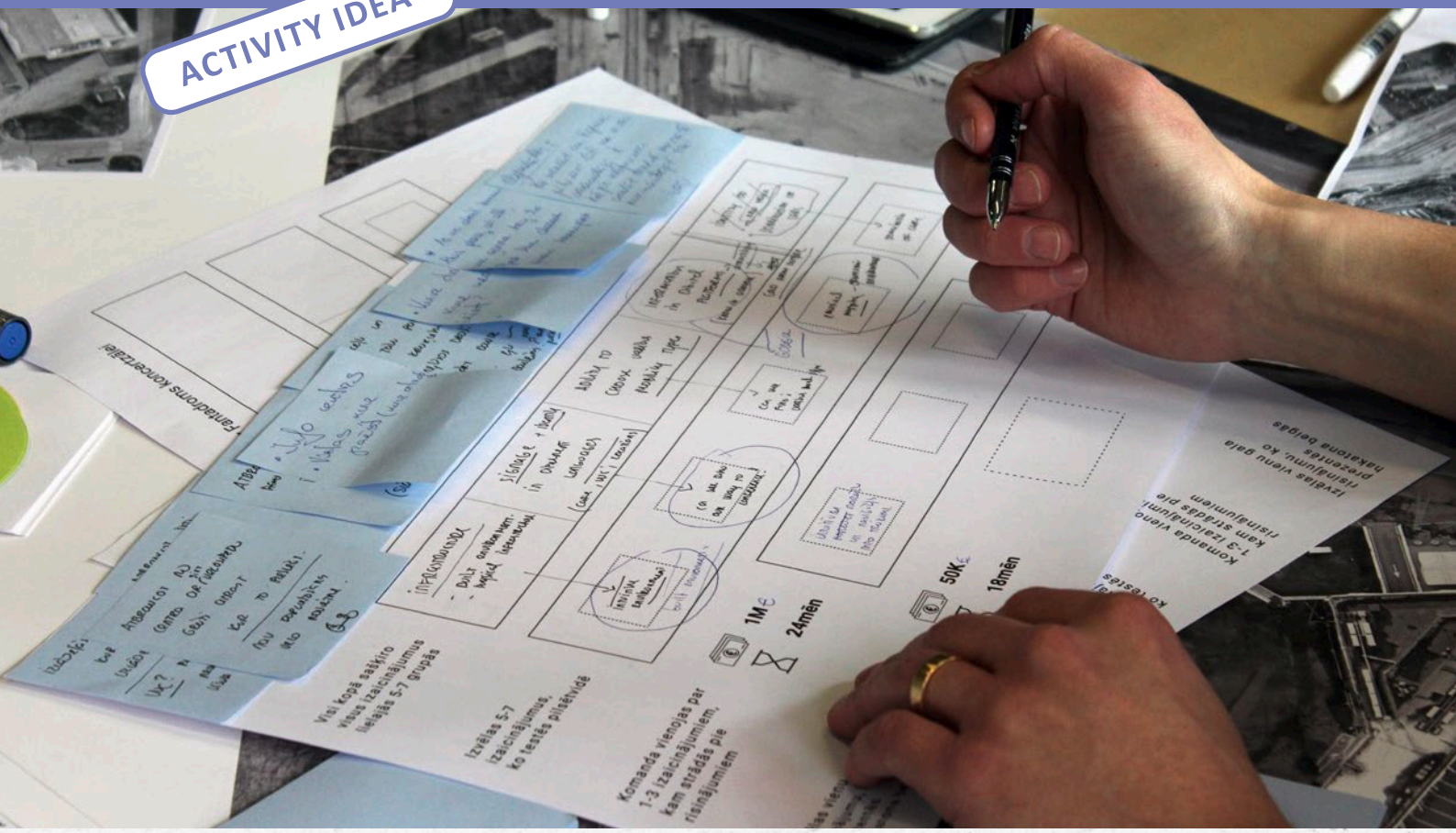
Implementation

- **Educational activities** to increase the awareness of benefits resulting from increasing the role of active mobility modes in daily business life
- **E-Scooter rental**, aimed to increase the utilisation of e-scooters for short and intermodal business trips
- **Promotional campaign** on conditions and advantages of e-mobility modes combined with other local public transport modes
- **Evaluation** of e-scooter utilisation through a database, including the collection of data about local conditions of using active mobility modes and satisfaction of their users, as well as CO_2 emission savings

Contact

Polish Union of Active Mobility
facebook.com/polskauniamobilnosciaktywnej
info@mobilnosc.org
mobilnosc.org

ACTIVITY IDEA



Bottom-up Mobility Management in the VEF district

Co-creation – Smart City – Stakeholder Management

Goal

The concentration of future-oriented institutions in the VEF area makes it a prime catalyst for urban transport innovation. Through Mobility Management activities, a large number of commuters is encouraged to reduce the utilisation of conventional transportation vehicles in the neighbourhood. Measures include informing employees and managers about the multiple benefits of sustainable transportation, promoting a modal shift with the help of information campaigns, corporate events and introduction of new mobility solutions, and involving stakeholders in the development of a mobility concept.

Promoter

City of Riga, LV

User groups

Employees; Employers; Urban planners

Materials

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Resources

Implementation period	●●●
Planning intensity	●●○
Costs	●○○

Background

The VEF district, adjacent to the city centre, is a priority development area for Riga. It is a multifunctional area (commercial, public and residential spaces) with a wide range of transport infrastructure. Above all, it is a hotspot for technology and innovation activities, including the headquarters of LMT – a large mobile network operator, and the local NGO VEFRESH – an innovation movement for dynamic urban development. About 4,000 information and communication technologists work in the area. Due to its scope and innovation affinity, it was selected as a pilot area for smart city solutions. This includes Mobility Management for local institutions such as LMT.

Implementation

- **Informing** management and employees about the benefits and possibilities of sustainable transportation and multimodality through regular communication via social media and posters
- **Training** activities for sustainable mobility behaviour, such as interactive lectures, online surveys, joint public bike rides and e-scooter testing
- **Co-creation** events like urban planning workshops and a Mobility Management hackathon to design solutions suitable for all stakeholders and their interests and to raise awareness of sustainable transport modes
- **Providing infrastructure** by piloting a mobility point, including bicycle parking, electric car charging, car sharing, etc.

Contact

City of Riga
Energy Agency (REA) Nika Kotoviča
project coordinator
nika.kotovica@riga.lv

ACTIVITY IDEA

Co-Creation Day

Co-Creation – Prototyping – Participation

Goal

The Co-Creation Day supports the development of local mobility concepts. The aim is to utilize 'user experience' and 'user ideas' to improve existing transport modes for commuting, create complementary mobility services within and to a neighbourhood or business district. The Co-Creation-Day acts as a catalyst for the development of new mobility solutions. Within the Co-Creation Day in Nuremberg, creative mobility solutions for a new campus were developed using participatory and interactive methods. The most feasible approaches are now being integrated into the campus mobility concept.

Promoter

Nuremberg, DE

User groups

Employees; Managers; Local transport organizations; Municipal representatives; Urban planners; Project managers; University representatives

Materials

Micromobility testing area; Obstacle course; Workshop materials (pens, paper, sticky notes, flip charts); Mobility card game

Resources

Implementation period	●○○
Planning intensity	●●○
Costs	●●○

Background

In the Nuremberg-Erlangen region, a new corporate business and technology campus is being developed. The office, production, research and development facilities will be integrated into an appealing urban environment with a variation of high-quality green and public spaces. Due to the scale of the campus, commuting traffic will have a large impact on the region. Therefore, mobility is an integral part of the endeavour, which is why a holistic concept for Mobility Management needs to be developed.

Implementation

- In preparation for the Co-Creation day, **stakeholder interviews** with agents of change, local transportation unions and other actors were conducted, as well as **employee workshops**
- **Set-up of participants:** On the workshop day, participants were assigned to different groups, each dealing with a different topic around campus mobility
- **Problem analysis:** Participants tested different forms of mobility at an obstacle course and evaluated whether they could be part of a mobility solution
- **Idea development:** All participants developed at least one approach to identified mobility problems with the aid of different creativity techniques. The ideas were then discussed within the group and one idea elected to be pursued.

- **Prototyping:** Participants further developed their ideas with hands-on experimental methods
- **Mobility game:** Different options for Mobility Management were presented. Based on these, each group composed a suggested set of measures for the campus
- **Presentation:** Group results were presented in the form of elevator pitches, as well as documented on the campus website

Contact

team red Deutschland GmbH
Dr. Katja K. Hericks
katja.hericks@team-red.net

insertEFFECT – new mobility
Andreas Fehr
andreas.fehr@inserteffect.com
+49 911 274 487 165

ACTIVITY IDEA

MOVE anchor project

Knowledge exchange – Regional planning – Pilot projects

Goal

Within MOVE, authorities in Hamburg aimed to anchor Mobility Management as a regional and enduring practice to reduce emissions caused by corporate mobility such as commuting. Through the anchor project, local and regional businesses were motivated and incentivized to review mobility policies. Support was available for implementing low-emission mobility solutions while realizing economic benefits within the organization.

Promoter

Ministry for Energy and the Environment
Hamburg, DE

User groups

Companies; Service providers; Network partners (authorities, unions, clubs)

Materials

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Resources

Implementation period	●●●
Planning intensity	●●○
Costs	●●●

Background

Air and noise pollution caused by mobility affect the health and well-being of Hamburg's residents and decrease the quality of life. The increasing demand for travel and transportation, traffic congestion, city regulations and standards regarding transportation enhance the need to change mobility throughout the Hamburg economy.

Implementation

- **Informing** institution management and employees on benefits and possibilities of sustainable transportation and multimodality through regular communication via social media and posters
- **Training** activities for sustainable mobility behaviour, such as interactive lectures, online surveys, joint public bike rides and e-scooter testing
- **Co-creating** events like urban planning workshops and a Mobility Management hackathon to design solutions suitable for all stakeholders and their interests and to raise awareness on sustainable transport modes
- **Providing infrastructure** by piloting a mobility point, including bicycle parking, electric car charging, car sharing, etc.

Contact

team red Deutschland GmbH
Dr. Bodo Schwieger
bodo.schwieger@team-red.net
+ 49 30 13 898 635

Manual for urban developments

cities. multimodal

Interreg Baltic Sea Region

EUROPEAN REGIONAL DEVELOPMENT FUND

EUROPEAN UNION

Within Mobility Management for urban developments, infrastructure adjustments, the provision of mobility services, and communication measures go hand in hand to enable car-free or car-reduced living for future residents and surrounding neighbourhoods. In the following chapter, the demand for Mobility Management in urban developments will be outlined. Underlying issues, opportunities and stakeholders will be described to holistically illustrate the impact of Mobility Management within urban developments.

- **Why is there a need for action?**
- **What are the opportunities for Mobility Management in urban developments?**
- **Who are the stakeholders in Mobility Management in urban developments?**
- **Tips for implementation**
- **Activity ideas:**
  - 'Werftdreieck' – A multimodal city quarter
  - Multi-ownership Mobility Management
  - Mobility contracts
  - Car Freedom Avenue

Key for activity ideas

Costs

●○○ up to 5,000 €
●●○ up to 15,000 €
●●● more than 15,000 €

Implementation period

●○○ up to 5 days
●●○ up to 2 months
●●● more than 2 months

Planning intensity

●○○ up to 2 planners
●●○ up to 4 planners and stakeholders
●●● involvement of more than 5 planners and stakeholders

Why is there a need for action?

The availability of mobility services and transportation infrastructure in urban districts has considerable effects on the mobility behaviour of residents and visitors – and hence, on urban traffic. Mobility Management for urban developments focuses on minimizing the need for car travel by future residents and users of newly developed housing and commercial areas.

Impacts of traffic on quality of life

Existing traffic infrastructure and mobility options not only have a strong influence on mobility behaviour, they also have a major impact on the overall quality of life in urban districts. Many cities suffer from congestion, pollution and noise from car traffic. Parked cars occupy vast areas in cities which are then not available for green space, recreation or 'street life'.

Demand orientation vs. human-centred approach

In many European cities, streets and parking for cars set the frame for planning processes from the very beginning. The result is city districts planned for the demands of cars, not of people. Now it is time to change the supply of road infrastructure and mobility options and, in so doing, to satisfy the existing demand for sustainable transportation and create new demand. Many successful examples show the potential.

Establishment of new mobility systems

Urban developments offer the unique opportunity to plan a mobility system 'from scratch', sometimes even without restrictions by existing infrastructure. People who will live or work there in the future will be more open to rethink their mobility patterns than people who have already established their mobility habits over a long time in a set environment.

What are the opportunities for Mobility Management in urban developments?

Instead of building more streets and parking space, some cities use a Mobility Management approach to build attractive city quarters with less car traffic and more space for social interaction. The basic idea is to develop the district such that nobody needs a private automobile for most daily trips. A huge variety of attractive transport options, like public transport, cycling and walking infrastructure, as well as sharing services for cars, bikes, scooters, cargo bikes, etc., provides mobility for all. Integrated districts that offer housing, working, shopping and recreation at a single location foster cycling and walking. This can also have positive effects on neighbouring city districts.

A successful implementation of Mobility Management in urban developments has many positive effects for all stakeholders involved, including the city administration, neighbours, investors and future inhabitants:

- Complete set of mobility options for the inhabitants
- Less car traffic, more walking, cycling and public transport
- Lower emissions of noise and pollutants
- Reduced congestion, less space for streets and parking, more public space for ‘street life’ and recreation
- Higher quality of life
- Reduced costs for traffic infrastructure (streets and parking) for the public and for construction companies (future owners or residents).

Who are the stakeholders in Mobility Management in urban developments?

Convincing and coordinating the large number of stakeholders involved is one of the major challenges of this approach. Only if all of them are on board and support Mobility Management for the urban development will it be successful.

Future residents

Future residents benefit from reduced car traffic and a huge variety of mobility options. Using public transport and sharing services also helps to reduce mobility costs, compared to owning a car. Walking and cycling promote 'living streets' as a vital area for social exchange. Sometimes it is possible to involve future residents in the planning process, so that their ideas and preferences can be included.

City council

Urban developments are usually planned over several years, requiring continuous involvement by political decision-makers. Legally binding requirements for car parking capacity, for instance, often have to be adjusted by the council to facilitate offering alternative mobility solutions. The council might have to be convinced to 'open the door' to this approach in the first place. It could be helpful to provide council members with information about opportunities: for instance, in terms of traffic generation, parking demand, overall acceptance of the urban development by neighbouring communities, as well as the showcase character of the project for the whole city and beyond. Clear targets for mobility in the planned urban development can be established together with decision-makers – for example, within the framework of a goal-setting workshop. Without strong support from the city council, the chances of successful Mobility Management decrease.

City administration

Especially in larger cities, many departments have to cooperate and support the Mobility Management approach, including planning departments, building departments, traffic management, environment and climate protection departments. They all have to be involved and coordinated to plan and implement Mobility Management. It may be useful to have regular meetings of the different departments to coordinate all activities.

Development organizations and investors

At the end of the planning process, the actual construction of buildings for housing, business, retail etc. will be done by private or public development companies, sometimes also by cooperatives or private persons. Mobility Management has a strong impact on their plans, for example for the number of parking spaces for cars and bikes they can or have to build, and the mobility services they have to provide. They need to be involved and convinced to support the Mobility Management approach at an early stage in the planning process. If a larger number of investors is involved, it might be useful to establish some kind of steering committee to coordinate them. In many cases some kind of motivation is needed for them to depart from their usual business approach and take part in a pilot project. Incentives can include allowances to build more floor space – which amounts to higher revenues – or to provide less car parking, meaning lower costs.

Mobility providers

Among the most important mobility providers are public transport organizations. A good connection to relevant locations is essential for a mobility concept. In addition, providers of services like car sharing, bike sharing, bike maintenance and repair have to be found and integrated into the planning process.

Neighbours

Urban developments have to be connected with surrounding neighbourhoods. Mobility services in surrounding areas can be used by inhabitants of the new district and vice versa. Often, urban development faces opposition from people in existing neighbourhoods. The reasons can be manifold; for example, people expect an increase in traffic and parking pressure in their streets, noise and dust from construction, or a loss of the green spaces they use for recreation today. Many are also afraid that Mobility Management will not work, and that people will own more cars or drive much more than expected. Therefore, it is important to involve neighbours at an early stage and let them participate in the planning process.

Tips for implementation

Implementing Mobility Management in urban developments is a long-term challenge. Important decisions must be made at an early stage and a strong commitment from all stakeholders involved is necessary throughout the whole process. Below, some conclusions drawn from projects with this approach are listed:

1 **Analyse mobility options on site:** Without good public transport access and infrastructure for cycling and walking at the location, Mobility Management is likely to fail.

2 **The best traffic is the traffic not generated**: A basic supply of shopping and services should be available on site or close by.

3 **Prepare a mobility concept early on:** Before concrete area development plans are decided, this guarantees room for manoeuvre regarding space distribution (for quarter garages, cycling infrastructure, etc.)

4 **Ensure mobility from the start:** Mobility services, especially access to public transport, must be available when people move into the new district. If inhabitants need a car at the beginning, it will be difficult to change their behaviour later.

5 **Make it obvious and simple:** Every stakeholder involved should clearly understand the approach and their personal benefit when planning a mobility concept.

6 **Commit stakeholders:** The right level of commitment has to be found for all stakeholders for each stage of the planning process. For example, all construction companies should be involved in the development of the mobility concept. Before the infrastructure planning process starts for the different building lots, a contract between the city and the construction company has to stipulate where the number of parking spaces, necessary bike parking or obligatory mobility services on site etc. are planned. This provides a clear framework for future cooperation.

7 **Define measures as specifically as possible:** Quantify the number of parking spaces for e-cars, car sharing, (cargo-)bike sharing; qualify bicycle parking; define operation concepts for mobility points, delivery services, car parks; define communication activities

8 **Capture the effects:** A procedure for monitoring the success of the Mobility Management should always be a part of the agreement. Of course, it must establish whether the measures defined in the contract have really been implemented. Other potential benchmarks could be the number of cars owned by residents, the volume of car traffic generated by inhabitants, or how often various mobility services are utilised. If targets are not achieved, stakeholders should be obliged to adapt the Mobility Management concept, or even to pay for parking spaces at other locations if no other solution can be found.

9 **Make sure it lasts:** The obligations stipulated in the contract must remain binding even if the property is sold.

ACTIVITY IDEA

‘Werftdreieck’ – A multimodal city quarter

Car-free living – Communication strategy – Stakeholder Management

Goal

The City of Rostock developed a mobility concept for the planned new ‘Werftdreieck’ housing area in co-operation with the local housing association WIRO. This concept provides concrete measures and advice on how to create a car-reduced quarter and specifies which sustainable mobility options will be integrated and how. The concept takes a look at walking and cycling infrastructure (paths, service and parking infrastructure), the public transport situation, integration of sharing systems (bike, car, trailers, etc.) and mobility points, the organization of car parking and integration of e-mobility (charging infrastructure). It specifies how the mobility and delivery needs of future residents will be organized and what services and communication activities are needed to promote a car-reduced housing area.

Promoter

City of Rostock, DE

User groups

Future residents; Local housing association; City administration

Materials

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Resources

Implementation period	●●●
Planning intensity	●●●
Costs	●●●

Background

The local housing association WIRO is planning a new residential area called 'Werftdreieck', located at a former shipyard close to the river Warnow and the city quarter 'Kröpeliner-Tor-Vorstadt' in the very heart of Rostock. With 700 planned flats in multi-floor buildings, this new area will be home to 1,500 residents. The aim of the housing company is to create an urban, vivid, green and car-reduced quarter with an area of 10 ha. In parallel to approval of the new development plan and before construction works start, the city is working with the local housing association to develop a mobility concept.

Implementation

- **Cooperation** during concept development through several round-table discussions involving the housing association, city administration (responsible urban and traffic planners), external planning traffic bureau and project team
- **Investigation** of needs for a multimodal quarter and additional infrastructure: Public transit connections, connections to the bicycle network, path relations, local supplies, central quarter garage, bicycle parking, connection to surrounding neighbourhoods
- **Specification** of quantity and quality of user-oriented mobility options: mobility points, sharing programmes, cargo bike rentals, car-sharing, package distribution, charging stations for e-mobility, walking and cycling paths inside the quarter, attractive bike parking
- Development of an **information and communication strategy** targeted to residents, including a wayfinding system, mobility brochures, information and promotion campaigns for mobility services, app for new residents, demand-oriented cooperation
- **Phased implementation** of concept components during detailed planning of construction phases by the housing association, with support and monitoring by the city administration

Contact

Hanseatic and University City of Rostock
Mobility department
Steffen Nozon
steffen.nozon@rostock.de
+49 381-3 816 002

ACTIVITY IDEA

Multi-ownership Mobility Management

Car-free living – District management – Stakeholder management

Goal

The development of a new district in Munich with a complex ownership structure aims to provide a sustainable and liveable environment by reducing the utilisation of and need for private motorized transportation. A consortium of different stakeholders created a mobility concept and a district management co-op for the operation of green mobility services.

Resources

Implementation period	●●●
Planning intensity	●●●
Costs	●●●

Promoter

Prinz-Eugen-Park Munich, DE

User groups

Residents; Building owners; Developers; Municipality

Materials

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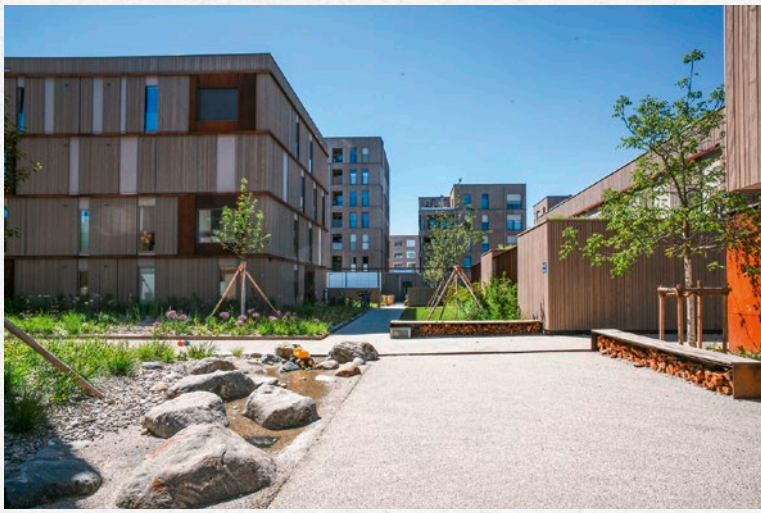
Background

A new district is being developed on the premises of the former Prinz-Eugen military barrack in Munich. About 1,800 housing units and corresponding urban infrastructure will host about 4,000 residents. Since land parcels and sub-projects have a diverse ownership structure, a close collaboration between owners and developers is necessary. In order to consult and coordinate development and mobility concepts, structures for communal district management were established.

Implementation

- The **district network charter** captures overarching goals for district development through the collaboration of stakeholders such as cooperatives, municipal corporations, joint building ventures, developers and building owners
- **Formation of working groups** to start developing a concept for district management
- **Establishment of a cooperative** 'GeQo eG' (Genossenschaft für Quartiersorganisation) for district organization
- 'Open district' **campaign day** for future residents and the interested public, including a guided tour through the district, music, entertainment for kids and information booths
- **Council decision about municipal funding support** for the district management
- **Development of a mobility concept** as a collaborative effort by the district co-op, municipal institutions, mobility providers, and mobility experts
- **Operation of a district co-op**, including the organization of events, newsletters, cargo-bike and e-bike sharing, integration of mobility services into neighbourhood amenities (e.g. displays with real-time public transit information in shop windows), health management, co-working spaces, a central district office and a mobility station
- **Co-op members** pay a low membership fee to enable investments and participate in regular meetings to decide on district activities, investments, and developments – including the implementation of a district mobility concept



Contact

stattbau münchen GmbH

Natalie Schaller
natalie.schaller@stattbau-muenchen.de
+ 49 89 2 877 807-125

Christian Bitter
christian.bitter@stattbau-muenchen.de
+ 49 89 2877 807-0

ACTIVITY IDEA

Mobility contracts Graz

Multimodal living – District management – Stakeholder management

Goal

The mobility contracts of Graz take influence on modal choices of residents and other stakeholders of new developments by reducing the legally required amount of parking spaces per housing unit and providing attractive alternatives such as public transport, cycling, walking and shared mobility options. Mutual benefits emerge for the City, developers, residents and users: The city can realize more new developments at lower road traffic impacts and create multimodal mobility infrastructure; Developers profit from lower construction and maintenance costs; Residents and users benefit from enhanced mobility options for their modal choices.

Promoter

City of Graz, AT

User groups

Developers; Residents and other users, Municipality

Materials

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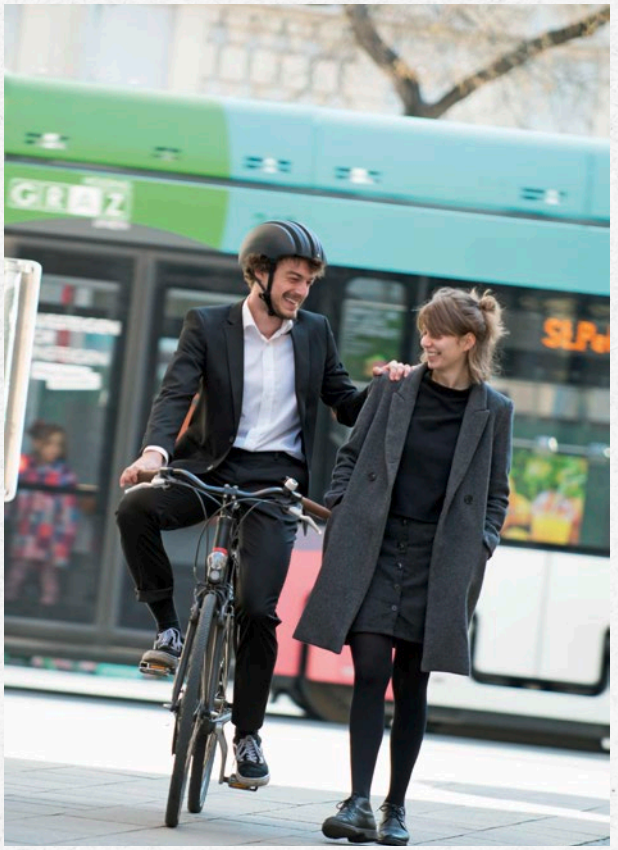
Resources

Implementation period	●●●
Planning intensity	●○○
Costs	●●○

Background

The mobility contracts Graz are the City's answer to a growing population and related challenges of increasing traffic: The congestion of key roads and limited availability of urban road space along with societal trends such as decreasing car ownership form a need for action that is also driven by the City's modal shift goals. The base of action for the mobility contracts are regional standards regarding the provision of car parking for new developments and their impact on transport behaviour and traffic volumes in the City of Graz. Since 2011, the City of Graz has signed 33 mobility contracts with developers with interest growing further.



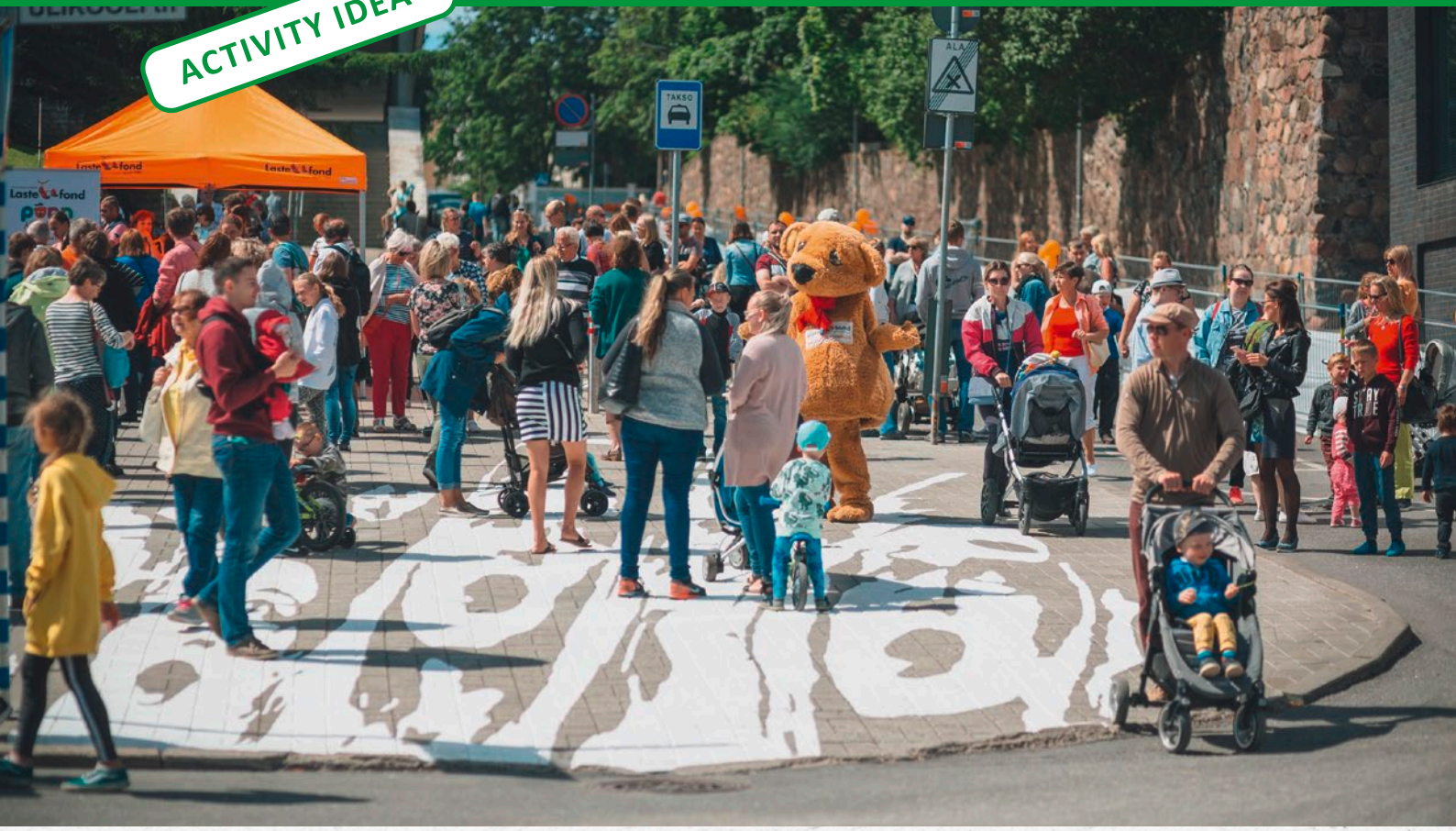
Implementation

- **Existing legal policies** allow for a deviation from minimum parking requirements if quality of and access to public transport are sufficient (distance to stops, frequency, operating time)
- If public transport is sufficient for a new development greater than 10,000 m², **developers and the City of Graz can enter into a mobility contract**
- Within the contract, responsibilities like **push & pull measures** to be implemented by developers to reduce car traffic, and **guaranteed support** for the implementation by the City are agreed upon
- A **timeline and expected impacts** on transport behaviour are specified by the contract
- The contract parties **define measures to promote accessibility and sustainability of mobility** within the development, such as quantitative parking requirements, car-free or car-light district design, road space reallocations, provision of bicycle service infrastructure, establishment of mobility sharing offers, real-time information screens for public transit, parcel stations, and information or motivational campaigns
- The City of Graz reviews the **compliance to the contract** as well as the **effectiveness of measures** after one year

Contact

City of Graz, Transport Planning Department
+ 43 316 872 2881
verkehrsplanung@stadt.graz.at

ACTIVITY IDEA



Car Freedom Avenue

Campaign – Car-free city centre – Revitalization

Goal

The Living Streets Campaign “Car Freedom Avenue” was implemented in summer as an outdoor socializing event to revitalize the city centre and create an attraction for locals and tourists to visit. Side effects of the campaign were to demonstrate Tartu’s long-term mobility and climate values and make them perceptible. Therefore, the city centre was reimagined and redesigned into a human- and pedestrian-friendly destination. It also created a connection between the pedestrian area and parks on the riverside and strengthened the centre’s role as a destination rather than a transit corridor.

Promoter

City of Tartu, EE

User groups

Citizens; Families; Tourists; Artists

Materials

Street Furniture; Music equipment;
Water installations; Sports equipment

Resources

Implementation period	●●○
Planning intensity	●●●
Costs	●●●

Background

In Tartu, the urban sprawl is having a major effect on the increase of private car usage. However, its compact and mostly flat urban structure makes for a pedestrian- and cycling-friendly environment that was promoted through the campaign. During times of the COVID-19 pandemic there was also a need to provide a safe outdoor space for physically distanced social gatherings, as well as to support the cultural sector. Embedded in the Living Streets campaign, this combination of a car-free central street and artistic installations and performances increased the awareness of transportation impacts on the level of climate change and urban liveability.

Implementation

- **Organization in cooperation** with local cultural actors (City library, dance studios, art and history museums, musicians, theatres)
- **Construction** and setup within one week – transformation of a section of Freedom Avenue to a leisure zone
- Creation of a high-quality **bustling street environment** with water basins, street furniture, artistic performances, music, sports facilities, and information on the impact of transportation and car usage
- **Welcoming** of 150,000 visitors to the Car Freedom Avenue during 4 weeks competition, bike and spares fair

Contact

Kaspar Alev
Tartu City Government
Kaspar.alev@tartu.ee
+ 372 5 242 859

Our partners