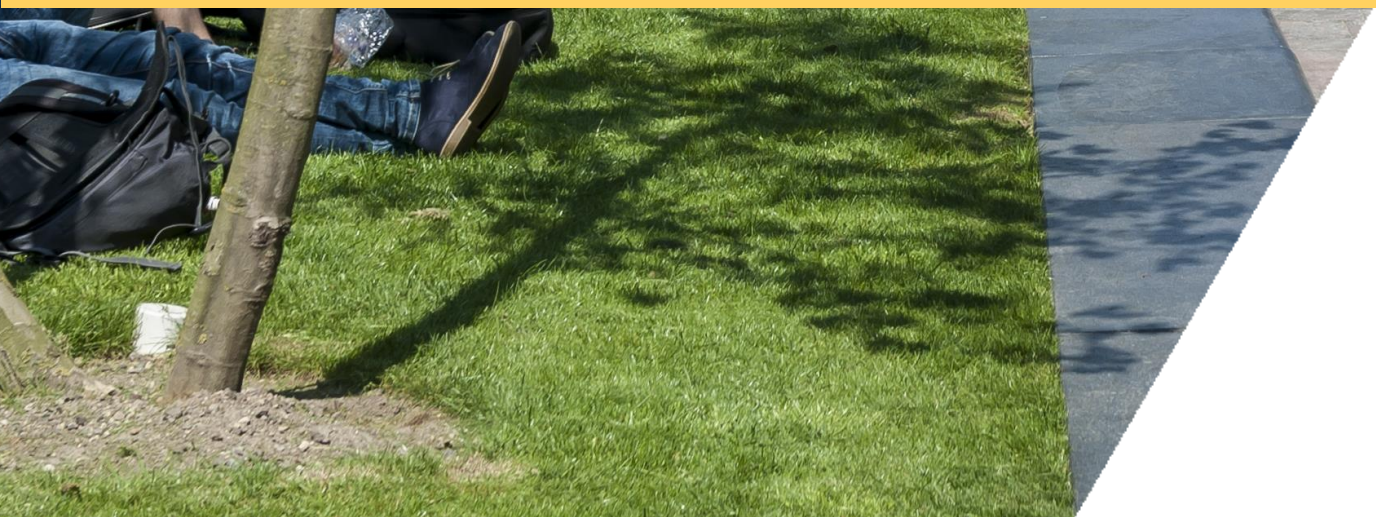
European Platform on Sustainable Urban Mobility Plans

PRACTICIONER BRIEFING

SUPPORTING AND ENCOURAGING WALKING IN SUSTAINABLE URBAN MOBILITY PLANNING



Imprint

About

The Walk21 Foundation has developed this Practitioner Briefing Topic. Walk21 supports everyone's right to walk in a safe, inclusive and welcoming environment by providing evidence, tools, training and accreditation to a global network of concerned communities, politicians, academics and practitioners.

Title

Supporting and Encouraging Walking in Sustainable Urban Mobility Planning

Authors

Jim Walker, Bronwen Thornton, Lina Marcela Quiñones

Contributors:

Dirk Bartel – Berlin
Juan Carlos Escudero – Vitoria-Gasteiz
Kristiaan Leurs – Rotterdam
Lucasz Franek – Krakow
Lucy Saunders – London
Nathalie Daclon – Paris
Nils Weiland – Bremen
Pedro Homem de Gouveia – Lisbon
Petra Jens – Vienna

Reviewers

Piotr Rapacz and Bonnie Fenton

Acknowledgments

This publication is made possible thanks to the contributions made by members of the Global Walking Network managed by the Walk21 Foundation, all of whom are credited for their respective contributions.

Disclaimer

The views expressed in this publication are the sole responsibility of the authors named and do not necessarily reflect the views of the European Commission.

Contacts

European Commission
Directorate-General for Mobility and Transport
Unit B4 – Sustainable & Intelligent Transport
Rue Jean-Andre de Mot 28
B-1049 Brussels

October 2019

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Guide to the reader

This document provides guidance on a specific topic related to *Sustainable Urban Mobility Planning (SUMP)*. It is based on the concept of SUMP, as outlined by the European Commission's Urban Mobility Package[1] and described in detail in the European SUMP Guidelines (second edition)[2].

Sustainable Urban Mobility Planning is a strategic and integrated approach for dealing with the complexity of urban transport. Its core goal is to improve accessibility and quality of life by achieving a shift towards sustainable mobility. SUMP advocates for fact-based decision making guided by a long-term vision for sustainable mobility. As key components, this requires a thorough assessment of the current situation and future trends, a widely supported common vision with strategic objectives, and an integrated set of regulatory, promotional, financial, technical and infrastructure measures to deliver the objectives – whose implementation should be accompanied by reliable monitoring and evaluation. In contrast to traditional planning approaches, SUMP places particular emphasis on the involvement of citizens and stakeholders, the coordination of policies between sectors (transport, land use, environment, economic development, social policy, health, safety, energy, etc.), and a broad cooperation across different layers of government and with private actors.

This document is part of a *compendium of guides and briefings* that complement the newly updated second edition of the SUMP Guidelines. They elaborate difficult planning aspects in more detail, provide guidance for specific contexts, or focus on important policy fields. Two types of documents exist: While 'Topic Guides' provide comprehensive planning recommendations on established topics, 'Practitioner Briefings' are less elaborate documents addressing emerging topics with a higher level of uncertainty.

Guides and briefings on how to address the following topics in a SUMP process are published together with the second edition of the SUMP Guidelines in 2019:

- **Planning process:** Participation; Monitoring and evaluation; Institutional cooperation; Measure selection; Action planning; Funding and financing; Procurement.
- **Contexts:** Metropolitan regions; Polycentric regions; Smaller cities; National support.
- **Policy fields:** Safety; Health; Energy (SECAPs); Logistics; Walking; Cycling; Parking; Shared mobility; Mobility as a Service; Intelligent Transport Systems; Electrification; Access regulation; Automation.

They are part of a growing knowledge base that will be regularly updated with new guidance. All the latest documents can always be found in the 'Mobility Plans' section of the European Commission's urban mobility portal Eltis (www.eltis.org).

[1] Annex 1 of COM(2013) 91.

[2] Rupprecht Consult - Forschung & Beratung GmbH (editor), Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan, Second Edition.

Executive summary

The quality and amount of walking as an everyday activity, in any given area, is an established and unique primary indicator of the quality of life. Authorities keen to create healthier and more efficient communities and places can make significant advancements by simply supporting and encouraging more walking. This Practitioner Briefing is the result of collaboration with experts and practitioners throughout Europe and seeks to provide guidance on how to plan for walking and help create healthy, efficient and sustainable walking communities across the European Union.

Walking is a fundamental and universal right regardless of ability or motivation and continues to be a major part of urban life, yet in many European countries people have been walking less and less. Thus, it is important to reverse this trend, as walking has positive effects on public health, sustainability, equity, congestion, liveability and urban economy. A fundamental way to achieve this is by planning cities that encourage walking, and Sustainable Urban Mobility Plans are a key tool to do so.

SUMPs provide a practical policy framework to create European cities where people choose and are able to walk as a way to travel, to be healthy and to relax. This Practitioner Briefing presents walking within this framework, connecting the SUMP principles and cycles with other key frameworks specifically for walking, such as the *International Charter for Walking* (Walk21, 2006), which provides eight principles for improving walkability.

Finally, the document describes in detail successful practices in nine European cities that have improved conditions for walking, either under the SUMP framework or as stand-alone policies. These case studies include developing policies specifically aimed at increasing walking, physical interventions in Historical Centres to make them more welcoming for pedestrians and communications campaigns designed to encourage walking. Thus, the case studies show that planning for walking must be done comprehensively, and there are many ways to approach this challenge, but, in the end, the result is better, healthier, more liveable cities.

Introduction

Walking is the most fundamental form of mobility. It is inexpensive, emission-free, offers important health-benefits, is accessible for all - except those with substantially impaired mobility – regardless of income, and for many citizens is a source of great pleasure.

However, walking is a neglected transport mode and despite being at the start and end of all trips is rarely captured in government statistics on mobility and is often overlooked and under-valued in planning and policy development.

The vitality of a city is closely linked to people being out and about on foot for many purposes. Beyond walking for access to goods and services, people walking are at the heart of urban life and contribute to liveable, attractive, prosperous and sustainable cities.

Walking has great potential to contribute to a more sustainable Europe and should therefore take a central position in urban transport policies. Ensuring that walking is safe, accessible and attractive is a core response to the challenges of climate change, pollution, congestion, maintaining mobility for an ageing population, health and managing the global desire to motorise.

In a global context the modal share of walking differs substantially between continents, countries and cities. As shown in Figure 1. it is particularly high in low-income countries, and in cities with a high share of public transport. It is difficult to compare the data, due to a lack of a consistent measurement methodology, but it is clear from studying both physical activity data and transport mode share statistics that people in Europe *do* walk and could be encouraged to walk more if their needs are given more consideration and support.

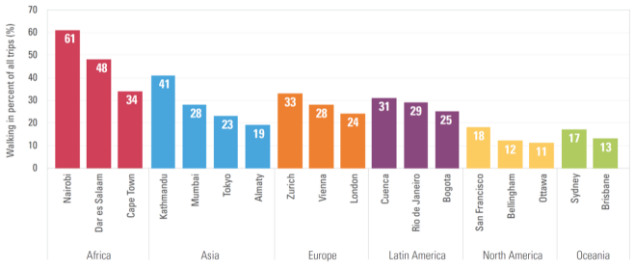


Figure 1. Modal share of walking in different cities globally from Transport and Climate Change (SLoCaT, 2018).

1.1 Sustainability context

Supporting and encouraging walking helps communities and cities be more sustainable. Walking makes a direct contribution to the commitments to mitigate against climate change through reduced energy consumption, being a zero carbon mode of transport and through its potential to increase patronage of decarbonised public transport systems.

At an international level the UN Habitat III New Urban Agenda 144 (a) states *"We will promote access for all to safe, age- and gender-responsive, affordable, accessible and sustainable urban mobility and land and sea transport systems, enabling meaningful participation in social and economic activities in cities and human settlements, by integrating transport and mobility plans into overall urban and territorial plans and promoting a wide range of transport and mobility options, in particular by supporting:*

(a) A significant increase in accessible, safe, efficient, affordable and sustainable infrastructure for public transport, as well as non-motorised options such as walking and cycling, prioritising them over private motorised transportation".(UN, 2016)

The New Urban Agenda sits within a framework of 17 Sustainable Development Goals (SDGs), and 169 detailed component targets, which provide a blueprint to achieve a better and more sustainable future for all.

There are several targets directly linked with investing in more walking and it's essential partnership with public transport, most notably SDG 11.2 (Sustainable Transport for All) which states: *"By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons"* (UN, 2015).

Other direct impacts from investment in walking include SDG 10 (Reduced Inequalities), SDG 3.6 (Reduced road deaths), SDG 3.9 (Reduced exposure to air pollution) and indirectly through improved accessibility to SDG 1.4 (Poverty reduction– equal rights to basic services), SDG 2.1 (Zero hunger– access to healthy and nutritious food), SDG 3.7 (Access to sexual & reproductive healthcare) and, SDG's 4.2, 4.3 4.5 (Access to nursery, primary and tertiary education) and SDG 8 (Access to decent work). There are further cross cutting benefits to SDG 5 (Gender Inequalities), SDG 13 (Climate Action) and SDG 16 (Strong Institutions).

The European Union committed to the Urban Agenda in the EU 2030 Agenda for Sustainable Development and the Pact of Amsterdam. The Pact, in particular, sets out a shared vision to make cities and human settlements inclusive, safe, resilient and sustainable.

1.2 Social context

One of the most significant benefits of encouraging and supporting walking is the effect on public health. Encouraging walking as a mode of travel helps increase the levels of physical activity among the population and has a positive impact on mental health and many non-communicable diseases, including cancer, diabetes and cardiovascular diseases. Some of the many benefits of walking are summarised in the infographic produced in 2019 by Transport for Greater Manchester in Figure 2.

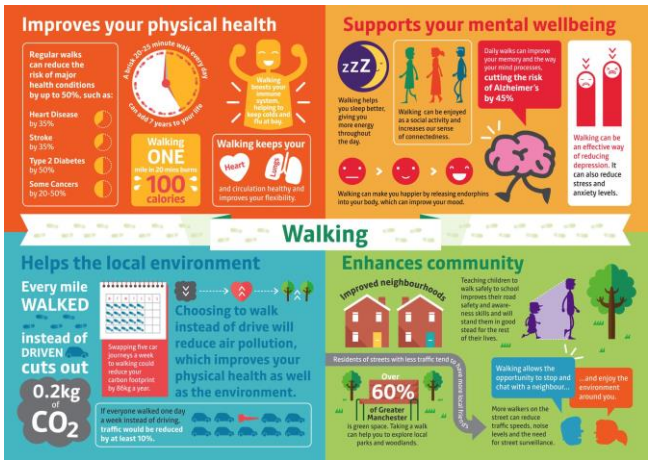


Figure 2. The benefits of Walking (Transport for Greater Manchester, 2019)

Physical inactivity and increasingly sedentary lifestyles are causing a rise in obesity levels not only across Europe, but globally. As highlighted by Cavill et al. (2006), the traditional approach to health promotion, which focuses on personal counselling and mass marketing, is not sufficient in this case. It is necessary to provide an environment that supports active lifestyles and dedicating additional investment to improving walkability.

Levels of walking in Europe are relatively low and this is a major cause for concern. The recommended levels of 30 minutes a day of physical activity for adults are rarely being met, regardless of age group, as illustrated in Figure 3. Therefore, Sustainable Urban Mobility Plans need to ensure the conditions for walking in European cities are, supportive and encouraging of everyday walking.

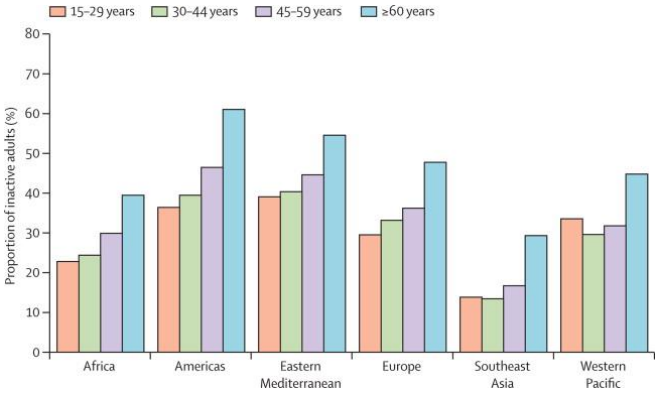


Figure 3. Global Physical Activity Levels from The Lancet Physical Activity Working Group, 2012.

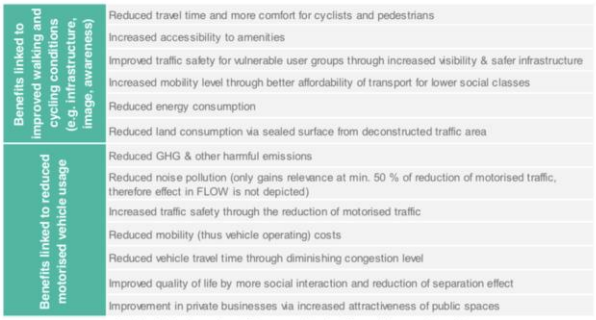
Walking is the most inexpensive mode of transport and, in many places, the only mode available to the poorest groups of the population. Consequently, ensuring that there are safe, accessible and enjoyable conditions for travelling on foot, connecting key destinations – especially transit hubs, education sites, health care facilities, retail areas, sport and leisure amenities and employment zones – is a practical way of contributing to an equitable society.

In Europe the ageing population is restricting mobility due to physical impairments. Providing those with mobility impairments with a dignified place to walk and enjoy simply being on the street allows everyone to remain purposefully engaged in society and makes a therapeutic contribution to their condition.

Women and young people are also known to walk more than others and therefore suffer disproportionately when walkability has not been planned and provided for.

1.3 Economic context

Walking provides a wide range of direct and indirect benefits, including better health, less pollution, less noise and higher quality of life. While some effects can be relatively easily quantified and assessed within a cost benefit analysis (CBA) framework, others are much more difficult, such as a better quality of life. These benefits also vary based on the local conditions.



Benefits linked to improved walking and cycling conditions (e.g. infrastructure, image, awareness)	Reduced travel time and more comfort for cyclists and pedestrians
	Increased accessibility to amenities
	Improved traffic safety for vulnerable user groups through increased visibility & safer infrastructure
	Increased mobility level through better affordability of transport for lower social classes
	Reduced energy consumption
	Reduced land consumption via sealed surface from deconstructed traffic area
Benefits linked to reduced motorised vehicle usage	Reduced GHG & other harmful emissions
	Reduced noise pollution (only gains relevance at min. 50 % of reduction of motorised traffic, therefore effect in FLOW is not depicted)
	Increased traffic safety through the reduction of motorised traffic
	Reduced mobility (thus vehicle operating) costs
	Reduced vehicle travel time through diminishing congestion level
	Improved quality of life by more social interaction and reduction of separation effect
	Improvement in private businesses via increased attractiveness of public spaces

Table 1: Various benefits associated with walking and cycling

Figure 4. Benefits associated with walking and cycling (Civitas 2020, 2017)

The FLOW project identified a broad set of benefits from more walking (and cycling)

Walking also has direct economic gains with effects on commercial activity and shifts in consumer expenditures towards more local businesses. Research has shown that improving conditions for walking and cycling can increase retail sales by 30% (Living Streets, 2018). Moreover, people who walk to shopping areas can spend up to 40% more and retail vacancies can be up to 17% lower after improvements to make these areas more walkable (TfL, 2019).

And these benefits extend to social equity with the distribution of resources and opportunities, and the degree to which walking helps to increase the mobility and accessibility of disadvantaged people.

The FLOW project captured these broader benefits into its CBA tool: FLOW Impact Assessment Tool as illustrated below.

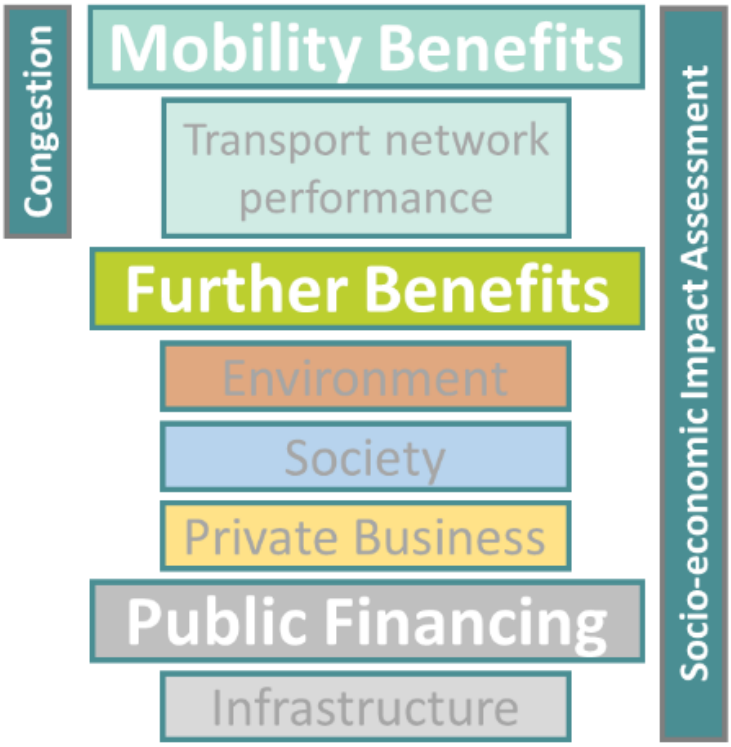


Figure 5. FLOW target system. Mobility and further benefits (Civitas 2020, 2017)

Walking and the 8 SUMP principles

The 8 SUMP principles provide a framework for the planning for walking to ensure policies and projects are deliverable, relevant and effective. You can find the most relevant case studies for each principle in section .

2.1 Plan for sustainable mobility in the 'functional city'

The case studies of Berlin, Lisbon, London, Paris and Vitoria-Gasteiz best illustrate how walking can be integrated into the sustainable mobility planning of a functional city.

In Berlin, for example, the city government created Germany's first state law on mobility (*Berliner Mobilitätsgesetz*) which commits to the promotion of walking, cycling and public transport. The mobility act aims to transform mobility in the city by improving the efficiency of the transport system as a whole; reshaping public space to induce a higher quality of living; becoming climate-neutral by 2050; and eliminating traffic fatalities and serious injuries.

2.2 Develop a long-term vision and a clear implementation plan

The case studies of Paris, Rotterdam and Vitoria-Gasteiz best illustrate how a vision for walking and clear implementation plan can deliver a more walkable city.

In Paris, for instance, the municipality's ambition to reverse the logic of the 1970s – which focused on adapting the city to the car – gave rise to the Paris Pedestrian Strategy. Which focuses on improving pedestrian life and promoting walking across the City. The walking strategy works on both walking and on making public spaces more welcoming and encouraging a diversity of uses. Its objective is, above all, to facilitate daily journeys and improve daily walking conditions, through planning, regulation and awareness, particularly in terms of road safety.

2.3 Assess current and future performance

The case studies of Vitoria-Gasteiz, Paris, Krakow and Vienna best illustrate how assessing current performance helps steer investment to improve a cities walkability in the future.

In Vitoria-Gasteiz for example, having detailed information on modal splits allowed the local government to evaluate accurately a pilot project in the city. This project reallocated 29% of public space in a certain area for pedestrians and, in response, modal shift for walking increased from11% to 66%. A further mobility survey made in 2014 for the whole city showed walking levels had reversed the decline and were back to the levels of ten years before (55%) and cars had decreased to 25 %.

2.4 Develop all transport modes in an integrated manner

The case studies of Lisbon Berlin, and Rotterdam illustrate how walking can best be integrated with other modes.

In Lisbon, through the strategy development process, an integrated pedestrian infrastructure network was made visible and evaluated to ensure it is responsive to the functional needs and safety requirements of all pedestrians, especially its most vulnerable users. This decision has led the city government to allocate at least 3% of public works budget to improving pedestrian accessibility.

2.5 Cooperate across institutional boundaries

The case studies of Rotterdam, Paris, Lisbon and Vitoria-Gasteiz illustrate best how effective policies for walking have been developed across institutional boundaries.

In Rotterdam, for instance, residents, entrepreneurs, developers and socio-cultural institutions were brought together by the city administration to steer the development and implementation of their strategy between 2008 and 2020. The governance of the plan was given three levels: city councillors, to coordinate the programs and budget; a steering group with responsibility for the integration of the policy across the city; and an inner-city bureau who propose, implement and organize citizen participation in a targeted manner.

2.6 Involve citizens and relevant stakeholders

The case studies of Bremen and Krakow best illustrate how citizens and stakeholders can be engaged to ensure walking is effectively supported and encouraged.

In Bremen, for example, there formulation of the SUMP was designed as a planning dialogue. Through every phase of the process, there were specific forms of participation for the target groups – e.g. citizens, politicians and public interest groups. There were four evening events in each of Bremen's five boroughs where citizens could speak directly with the consultants leading the process as well as with the local administration. Additionally, an interactive participation portal was implemented.

2.7 Arrange for monitoring and evaluation

The case studies of Vienna, Krakow, London and Rotterdam best illustrate how arrangements can be made for monitoring and evaluating walking policy.

In Vienna, to measure the impact of the walking strategy, the city conducted a representative survey every two years. It explores the image of walking among Vienna's population, weak points of infrastructure and the wishes of pedestrians. Between 2013 and 2017 there was a 1% increase in walking in the city and 29% increase in satisfaction.

2.8 Assure quality

The case studies of London and Lisbon best illustrate how quality can be assured in the delivery of walking policy.

In London, for example, a checklist for engineers was created to use when redesigning street environments to quantitatively assess proposals against 31 metrics and give a performance score for every street. The score has been built into strategic decision making in Transport for London as a key performance indicator resulting in a transformational impact on the prioritisation of walking projects in the city.

Sustainable urban mobility planning for walking

The SUMP planning cycle (Figure 6) proposes a 4-stage and 12-point process with 5 defined milestones as a practical framework for delivering an effective policy.

Specific actions are required for walking within this process to ensure the needs of people walking are given sufficient support and encouragement in the plan.

Figure 6. SUMP planning cycle

3.1 Setup and analysis

The first stage of the SUMP planning cycle involves setting up working structures, assessing the planning framework and analysing the mobility situation.

To ensure walking is supported and encouraged at this first stage it can be helpful to:

- **Bring urban designers and transportation planners together to write a Walking Strategy** – a multi-disciplinary institutional framework for planning and delivering walking that is ambitious and adds new value to current levels of service requires leadership, partnerships, resources, commitment to research and training, and to monitoring and evaluation. Experience suggests that urban designers and transportation planners are best placed to explore a variety of approaches to enhancing walkability in creative and experimental ways.

- **Commission research into walking behaviour** – understand existing walking activity (e.g. the International Walking Data Standard) and the perceptions of people walking (e.g. the Make Walking Count tool). By assessing the behaviour of people walking in the city, in varied urban environments and among different social groups, the effectiveness of different design factors in promoting walking can be understood and the criteria for walkability refined and tested.
- **Commission an assessment of current walkability** – it is important to understand the conditions for every district of the city, and then develop policies and plans for the total pedestrian environment - establishing a Pedestrian Potential Index and a Deficiency Index, can be useful to help evaluate each street segment in the city. The indices reveal patterns of potential and needs which can be used to inform new policies and plans.

3.2 Strategy development

The second stage of the SUMP planning cycle focuses on strategy development, which involves defining future scenarios, visions and objectives, and establishing indicators and targets to measure them. To ensure walking is supported and encouraged at this second stage it can be helpful to:

- **Sign the *International Charter for Walking*** – the *International Charter for Walking* is a common policy reference with 8 key principles and 34 illustrative actions, developed by experts from more than 35 countries. It has been signed by over 5,000 politicians, academics, experts and community leaders and is a visible commitment to meeting the needs of people walking.
- ***Involve the public through participation in the planning process and city activities*** – engage local communities to map their needs so that targeted actions can then respond at relevant locations with appropriate (Walk21, 2016), measures to benefit those with the greatest need. Involving the public is crucial to success. City events can be organised to focus on the walking experience.
- **Review policies, standards and regulations to enable walkability** – street design standards to support walking and the zoning for mixed land use, parking standards, and subdivision standards need to respond to the needs of people on foot and promote walking first in the transport hierarchy.

3.3 Measure planning

The third stage of the SUMP planning cycle focuses on proposing measures, based on the defined strategies and evaluating them so that those that are most relevant for the city and its vision can be selected. Prioritising involves defining where would these measures have greatest impact and, for example, choosing key destinations to implement actions will have a significant impact on the outcomes. To ensure walking is supported and encouraged at the third stage it can be helpful to:

- **Identify a signature project or key intervention** – a key project e.g. creating a pedestrian plaza, can communicate vision and inspire action across the city, raise the value of walking and increase engagement with and understanding of the importance of walkability.
- **Ensure communities are walkable where there is the greatest need** – sidewalks are the essential urban infrastructure that most meet the needs of people walking. Ensure, at the very least, that there are dedicated, safe and unobstructed sidewalks on all of the streets in neighbourhoods where people live and within 1 km of the most walked places including transit hubs, education sites, health care facilities, retail areas, sport and leisure amenities and employment zones (Figure 7).

Figure 7. Key destinations for improving walkability (Walker & Thornton, 2018)

3.4 Implementation and monitoring

The final stage of the SUMP planning cycle focuses on implementation and monitoring.

To ensure walking is supported and encouraged at the final stage it can be important to:

- **Adopt the Walking and Public Transport Urban Mobility Indicators** - The international association of public transport (UITP) and the Walk21 Foundation collaborated to produce a number of new indicators to help cities and regions to measure, in a comparable way, the impact of different approaches to more accessible, safe, efficient, affordable and sustainable walking and public transport. The indicators are provided in a tiered approach, to empower agencies to generate data, report and inform action and accelerate progress. The indicators are a mix of objective, satisfaction and priority setting measures that can be collected by local authorities and public transport operators. They link, where possible, to the GRI Sustainability Reporting Standards in a modular, interrelated structure, which represents the global best practice for reporting on a range of economic, environmental and social impacts.

Supporting and Encouraging Walking in Europe

Successful approaches to creating walkable cities will vary by culture, place, and city size. Nevertheless, a few attributes contribute to the quality of walkability in most urban and suburban settings and a comprehensive approach and commitment by the local authority can deliver more walkable communities.

This commitment and approach is set out in the International Charter for Walking, recognised by the World Health Organisation (WHO) as a comprehensive framework for safe walking and illustrated by them in Figure 8. The Charter was published in 2006 to help authorities refocus their existing policies, activities and relationships to create a culture where people choose to walk.

The Principles of the International Charter for Walking are:

1. Increased inclusive mobility
2. Well designed and managed spaces and places for people
3. Improved integration of networks
4. Supportive land-use and spatial planning
5. Reduced road danger
6. Less crime and fear of crime
7. More supportive authorities
8. A culture of walking

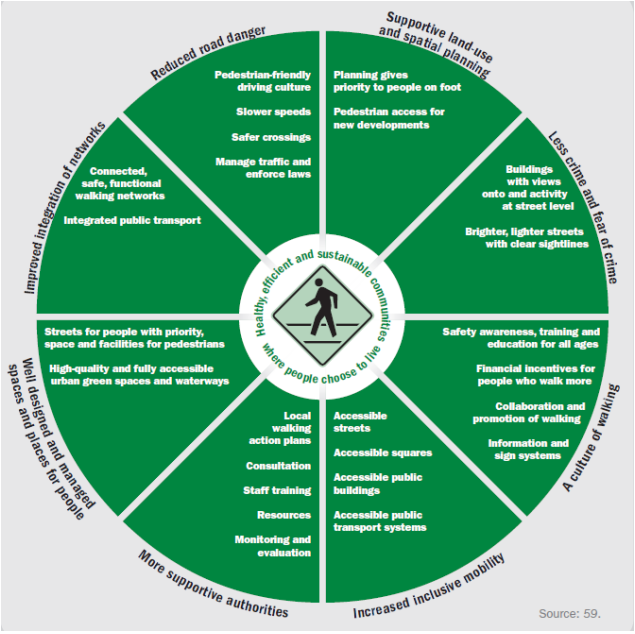


Figure 8. The International Charter for Walking, Walk21 2006, WHO 2013

Principle 1: Increasing inclusive mobility

People in communities have the right to accessible streets, squares, buildings and public transport systems regardless of their age, ability, gender, income level, language, ethnic, cultural or religious background, strengthening the freedom and autonomy of all people, and contributing to social inclusion, solidarity and democracy.

The SUMP should consider potential commitments to:

- Ensure safe and convenient independent mobility for all by providing access on foot for as many people as possible to as many places as possible particularly to public transport and public buildings
- Integrate the needs of people with limited abilities by building and maintaining high quality services and facilities that are socially inclusive

Principle 2: Well designed and managed spaces and places for people

Communities have the right to live in a healthy, convenient and attractive environment tailored to their needs, and to freely enjoy the amenities of public areas in comfort and safety away from intrusive noise and pollution.

The SUMP should consider potential commitments to:

- Design streets for people and not only for cars, recognising that streets are a social as well as a transport space and therefore, need a social design as well as engineering measures. This can include reallocating road space, implementing pedestrian priority areas and creating car-free environments to be enjoyed by all, supporting social

interaction, play and recreation for both adults and children
- Provide clean, well-lit streets and paths, free from obstruction, wide enough for their busiest use, and with sufficient opportunities to cross roads safely and directly, without changing levels or diversion
- Ensure seating and toilets are provided in quantities and locations that meet the needs of all users
- Address the impact of climate through appropriate design and facilities, for example shade (trees) or shelter
- Design legible streets with clear signing and on-site information to encourage specific journey planning and exploration on foot
- Value, develop and maintain high quality and fully accessible urban green spaces and waterways.

Principle 3: Improved integration of networks

Communities have the right to a network of connected, direct and easy to follow walking routes which are safe, comfortable, attractive and well maintained, linking their homes, shops, schools, parks, public transport interchanges, green spaces and other important destinations.

The SUMP should consider commitments to:

- Build and maintain high-quality networks of connected, functional and safe walking routes between homes and local destinations that meet community needs
- Provide an integrated, extensive and well-equipped public transport service with vehicles which are fully accessible to all potential users • Design public transport stops and interchanges with easy, safe and convenient pedestrian access and supportive information
- Design public transport stops and interchanges with easy, safe and convenient pedestrian access and supportive information.

Principle 4: Supportive land-use and spatial planning

Communities have the right to expect land-use and spatial planning policies which allow them to walk to the majority of everyday services and facilities, maximising the opportunities for walking, reducing car-dependency and contributing to community life.

The SUMP should consider commitments to:

- Put people on foot at the heart of urban planning. Give slow transport modes such as walking and cycling priority over fast modes, and local traffic precedence over long - distance travel
- Improve land-use and spatial planning, ensuring that new housing, shops, business parks and public transport stops are located and designed

Principle 5: Reduced road danger

Communities have the right for their streets to be designed to prevent accidents and to be enjoyable, safe and convenient for people walking – especially children, the elderly and people with limited abilities

The SUMP should consider commitments to:

- Reduce the danger that vehicles present to pedestrians by managing traffic, (e.g by implementing slower speeds), rather than segregating pedestrians or restricting their movements
- Encourage a pedestrian-friendly driving culture with targeted campaigns and enforce road traffic laws
- Reduce vehicle speeds in residential districts, shopping streets and around schools
- Reduce the impact of busy roads by installing sufficient safe crossing points, ensuring minimal waiting times and enough time to cross for the slowest pedestrians
- Ensure that facilities designed for cyclists and other non-motorised modes do not compromise pedestrian safety or convenience

Principle 6: Less crime and fear of crime

Communities have the right to expect an urban environment designed, maintained and policed to reduce crime and the fear of crime.

The SUMP should consider potential commitments to:

- Ensure buildings provide views onto and activity at street level to encourage a sense of surveillance and deterrence to crime
- Conduct pedestrian audits by day and after dark to identify concerns for personal security and then target areas for improvements (for example, with brighter lighting and clearer sightlines)
- Provide training and information for transport professionals to increase awareness of the concerns of pedestrians for their personal security and the impact of such concerns on their decisions to walk

Principle 7: More supportive authorities

Communities have the right to expect authorities to provide for, support and safeguard their ability and choice to walk.

The SUMP should consider commitments to:

- Commit to a clear, concise and comprehensive action plan for walking, to set targets, secure stakeholder support and guide investment and includes the following actions:
- Involve all relevant agencies (especially transport, planning, health, education and police), at all levels, to recognise the importance of supporting and encouraging walking and to encourage complementary policies and actions
- Consult, on a regular basis, local organisations representing people on foot and other relevant groups including young people, the elderly and those with limited ability
- Collect quantitative and qualitative data about walking (including the motivations and purpose of trips, the number of trips, trip stages, time and distance walked, time spent in public spaces and levels of satisfaction)
- Integrate walking into the training and on-going staff professional development for transport and road safety officers, health practitioners, urban planners and designers
- Provide the necessary ongoing resources to implement the adopted action plan
- Implement pilot-projects to advance best-practice and support research by offering to be a case study and promoting local experience widely
- Measure the success of programmes by surveying and comparing data collected before, during and after implementation

Principle 8: A culture of walking.

Communities have a right to up-to-date, good quality, accessible information on where they can walk and the quality of the experience. People should be given opportunities to celebrate and enjoy walking as part of their everyday social, cultural and political life.

The SUMP should consider commitments to:

- Actively encourage all members of the community to walk whenever and wherever they can as a part of their daily lives by developing regular creative, targeted information, in a way that responds to their personal needs and engages personal support
- Create a positive image of walking by celebrating walking as part of cultural heritage and as a cultural event, for example, in architecture, art-exhibitions, theatres, literature readings, photography and street animation
- Provide coherent and consistent information and signage systems to support exploration and discovery on foot including links to public transport
- Financially reward people who walk more, through local businesses, workplaces and government.

Case Studies from European Cities

A walkable city can be achieved by design or retrofitted to build walkability into the urban fabric and enable walking to be an everyday travel choice. In a walkable community, walking is considered a normal mode choice that connects people with their destinations and other modes of travel and very often where people walking are given priority over motor vehicle movement.

Walkability is created when the built environment supports and encourages walking by providing for pedestrian comfort and safety, connecting people with varied destinations within a reasonable amount of time and effort. *(Southworth M., Journal of Urban Planning and Development, Dec 2005).*

Key indicators for a walkable city are residential density, connectivity and destinations (including transit stops) within walking distance. At street level this translates to high quality (wide, clear, continuous) walkways/sidewalks, safe street crossing points, street furniture and landscaping, slowed motorised traffic and managed parking, prioritised access to public transport services and space for public life and community activity.

A highly walkable environment invites people of any age, gender or degree of mobility to access their city independently and with enjoyment.

While not all urban/suburban forms readily enable walking (low density, single use land patterns, urban highways), it is essential to identify opportunities for enhancing walkability where people walk the most, e.g. shopping streets, to ensure safe walkable access in all neighbourhoods and key destinations, e.g. schools, and to prioritise walking connections to public transport services for longer journeys.

The examples and best practices described throughout this chapter show how different European cities have been able to achieve more walkable places.

5.1 *Berliner Mobilitätsgesetz*: The Berlin Mobility Act

Figure 9. The Pedestrian Dialogue in Berlin

The city-state of Berlin created Germany's first state law on mobility (*Berliner Mobilitätsgesetz*) which commits to the promotion of walking, cycling and public transport to be applied from 2020[3].

The mobility act aims to transform mobility in the city by improving the efficiency of the transport system as a whole; reshaping public space to induce a higher quality of living; becoming climate-neutral by 2050; and eliminating traffic fatalities and serious injuries.

The new law builds on the 2011 Berlin Pedestrian Strategy following extensive consultation with the community and stakeholders. The city set up a mobility committee to help with the process, which brought together experts, civil society organizations, city boroughs, administration and politicians. In March 2018, the committee elected seven representatives into a "pedestrian dialogue", which worked together with the city government in drafting the new law. (See Figure 8)

The pedestrian section of the mobility act includes commitments for: more direct pedestrian routes; greater accessibility; safer streets; encouraging students to walk to school; and a higher quality of walking experience generally. The law includes a delivery framework for implementing the actions which include setting up a dedicated civil society consultation forum; appointing new coordinators at senate and borough levels; revising existing design standards; and creating a new five-year planning framework with key measures.

3 www.berlin.de/senuvk/verkehr/mobilitaetsgesetz/index_en.shtml.

5.2 Binnenstadplan Rotterdam: Citylounge (2008)

Figure 10. Happy Streets in Rotterdam

In 2008 Rotterdam adopted the *Binnenstadsplan* (Inner City Plan), which has the *Citylounge* as a central concept focused on giving pedestrians more enjoyment of public space.

Residents, entrepreneurs, developers and socio-cultural institutions were bought together by the city administration to steer the development and implementation of the strategy between 2008 and 2020.

The governance of the plan has three levels: city councillors, who coordinate the programs and budget; a steering group who are responsible for the integration of the policy across the city; and an inner-city bureau who propose, implement and organize citizen participation in a targeted manner.

Under the umbrella of the *Binnenstadsplan*, there have been a variety of small and large-scale mobility projects, some of which include:

- Connecting neighbourhoods with new road crossings
- Reducing on-street parking spaces (around 3,000)
- Building large parking garages on the outskirts of the city ("Park & Walk")
- Development of more comfortable, safe green spaces
- Investment in active frontages, lighting and seating

The public space around Central Station, the riverbanks, the *Binnenrotte* and the *Coolsingel* are striking examples of where more space has been given to the pedestrian in the heart of the city center in a relatively easy and inexpensive way. (See Figure 9)

The city evaluated the success of the policy as a measurable extension of the average stay of the pedestrian in the city center. The 10% target was achieved and the satisfaction of Rotterdam residents concerning various aspects of the city center has also increased.

The number of visitors, demand for housing, spending level and the like have also grown. At the same time, Rotterdam residents remain constructively critical.

5.3 Vienna Walking: long-term communication to promote walking

Figure 11. Promotion campaign in Vienna

The city of Vienna aims to further increase the level of walking trips to ensure a combined goal of 80 percent of mobility by the year 2025 being by walking, cycling or public transport.

The city walking strategy is based on five defined priorities:

- ***Measuring walking:*** Collecting data to identify barriers for more walkability
- ***Finding friends:*** Building up relationships with stakeholders to make walking a cross-departmental topic
- ***Change the culture:*** Connecting single projects into sustainable processes
- ***Listen and help:*** Offering services to facilitate walking
- ***Make walking glamorous:*** Promoting walking as an urban lifestyle (See Figure 10).

Walking policy has been integrated into different strategies and plans, including: Vienna's Smart City Framework Strategy; Urban Development Plan 2025; and Pedestrian Traffic Strategy Paper.

The city established an independent Mobility Agency for Vienna in 2013 with its own officers for walking and cycling. Supportive infrastructure measures were complemented with encouraging

communications. Some of the most notable actions include:

- The Year of Walking campaign in 2015 - including led walks and street festivals
- Creation of a Walking Map and Walking app for the city.
- Investment in shortcuts, school streets and footpath widening
- Detailed modal share surveys including understanding perceptions and priorities.
- Projects targeting schools, parents and kindergartens
- Walking challenges in suburban districts
- Networking events and an online community platform www.wienzufuss.at

A personalised travel planning campaign encouraging people to replace short car trips with walking and cycling.

To measure the impact of the walking strategy the city conduct a representative survey every two years. It explores the image of walking among Vienna's population, the infrastructure deficiencies and the wishes of pedestrians.

Between 2013 and 2017 there was a 1% increase in walking in the city and 29% increase in satisfaction.

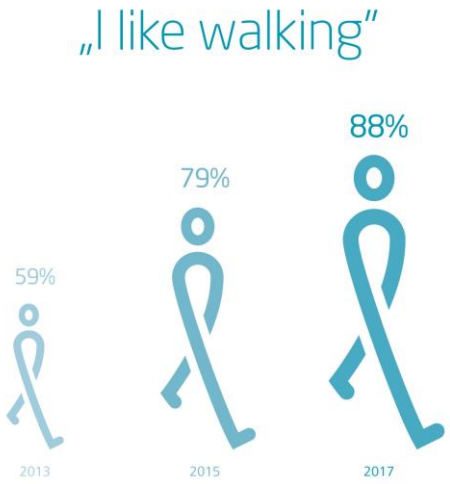


Figure 12. Increase in positive image of walking, 2013 – 2017, the Vienna Walking Report 2017

5.4 London Healthy Streets

Figure 13. An example of the transformation of public space being delivered in London

London developed a healthy streets policy, which puts the human experience at the centre of decision making about how streets are designed, managed and used.

Ten indicators were set to highlight the quality of the street experience: 1) everyone feels welcome; 2) is easy to cross the road; 3) there is shade and shelter; 4) there are places to stop and rest; 5) is not too noisy; 6) people are choosing to walk and cycle; 7) people feel safe; 8) there are things to see and do; 9) people feel relaxed; 10) the air is clean.

The 25-year Transport Strategy and City Spatial Plan, as well as other statutory strategies, have adopted the approach for the city. Transport for London agreed to dedicate a £2.3 billion central fund for schemes which give priority to walking, cycling and public transport use over private vehicles.

A checklist tool for engineers to use when redesigning street environments was created to quantitatively assesses proposals against 31 metrics and gives a performance score for the street. In London this has been built into the strategic decision making as a key performance indicator which has had a transformational impact on the prioritisation of walking.

As a result, major arterial roads are being removed to provide public space for walking and spending time and on local streets 'liveable neighbourhoods' are being developed to reduce traffic dominance and make them easier to move around on foot (see Figure 12)

5.5 The Paris Pedestrian Strategy

Figure 14. Impact of the reallocation of space along the banks of the Seine

Paris Council adopted the Paris Pedestrian Strategy unanimously in January 2017. The plan aimed to give walking more priority as an efficient and sustainable mode of transport after recognising that more than half of Paris' public space is dedicated to private motorised vehicles, but only 13% of urban trips by Parisians are made by car.

The municipality's ambition is to reverse 'the logic of the 1970s' by focusing on improvements to pedestrian life and promote walking across the City. It centres on both walking and in making public spaces more welcoming and encouraging diversity of uses. Its objective is, above all, to facilitate daily journeys and improve daily walking conditions, through planning, regulation and awareness, particularly in terms of road safety.

The policy process included consultation with many different stakeholders, which took place throughout 2016. All city departments were extensively involved and in addition to the district town halls and political groups, the approach involved institutional partners, the Police, consular chambers, representatives of professionals and users, academic researchers, and local authorities.

The strategy set 5 targets:

- Facilitate pedestrian continuity and shared streets between different modes.
- Promote the diversity of street uses.
- Raise the standards of comfort in public spaces.
- Rethink pedestrian orientation.
- Strengthen Paris' pedestrian culture.

Some of the most emblematic achievements include the opening the banks of the Seine exclusively to walkers and cyclists (Figure 14) and the redevelopment of seven iconic major squares for pedestrians. Other initiatives include tactical urbanism operations, sidewalk widening and an annual Car Free Day celebration.

5.6 Krakow City Centre

Figure 15. Historical Centre in Krakow almos entirely for pedestrians

The Old Town in the City of Krakow is a UNESCO heritage site – its narrow streets were designed for walking and access for motorised vehicles continues to be restricted with the exception of deliveries made before 10 am; residents; taxis; and users that have special mobility needs.

In 2016 a new study, as part of the general mobility strategy development, clarified the barriers to walking more in the city. Key issues included: cars parked on sidewalks; poor signal timings at crossings; unsafe crossings; inaccessible underpasses; and insufficient footpath widths.

In response, a two year project invested in: Formalising sidewalk parking to ensure the legal 2m minimum accessible width; removing or adjusting signals at crossings across the city; new elevated crossings at education sites; new at grade crossings to replace underpasses; and further motorised traffic restrictions in high pedestrian volume areas.

The first six months were for preparation, followed by six more months on consultations – especially for parking reforms – and a full twelve months for implementing the measures. The project had a highly participatory approach, and there was extensive communication with the community. The parking reorganisation and the implementation of the new zebra crossings were particularly delicate subjects. Consequently, there were over a dozen meetings focusing on specific streets, instead of broader open meetings.

The project has resulted in a 7% reduction in traffic in the city centre, largely due to a 15% reduction of parking spaces. This is particularly interesting, as the project was a low-cost initiative (around 1 million EUR), based mostly on traffic signs and bollards.

5.8 Creation of urban pathways for pedestrians in Vitoria-Gasteiz

Figure 16. Urban pedestrian pathway in Vitoria-Gasteiz

Vitoria-Gasteiz has traditionally been a walked city however regular surveys showed a declining trend in favour of cars and the authority responded with a SUMP in 2008 to boost the number of people going on foot to their destinations and make Vitoria-Gasteiz a more sustainable city

A Pedestrian Mobility Master Plan was produced, as part of the SUMP process which focused on delivering several 'super blocks' - where inner streets are entirely for people and not for vehicles - and a new network of urban pedestrian pathways, connecting the main urban activity hubs with walking-friendly public space where cars were minimised and priority given to pedestrians.

The government of the city council worked across the Environment, Mobility and Urbanism technical departments and further engaged the taxi community, residents, cyclists, ecologist, students and transport and technology companies to develop the policy in partnership.

The project tackled cultural change with an extensive communications campaign. There was a targeted engagement of neighbourhood leaders, citizens associations and others in a structured stakeholder forum.

Between 2009 and 2011 a pilot superblock was created and a pedestrian pathway was built linking the centre with the north of the city. The city had reallocated 29% of public space to pedestrians through the project and in response there was 55% more walking and 63% less cars in the area. A further mobility survey made in 2014 for the whole city showed walking back to the previous levels last experienced ten years before (55%) and 25 % less cars on the roads.

The city plans to extend the vision of pedestrian pathways to the whole city and to create more superblocks in other central neighbourhoods

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5.9 The Sustainable Urban Mobility Plan Bremen 2025

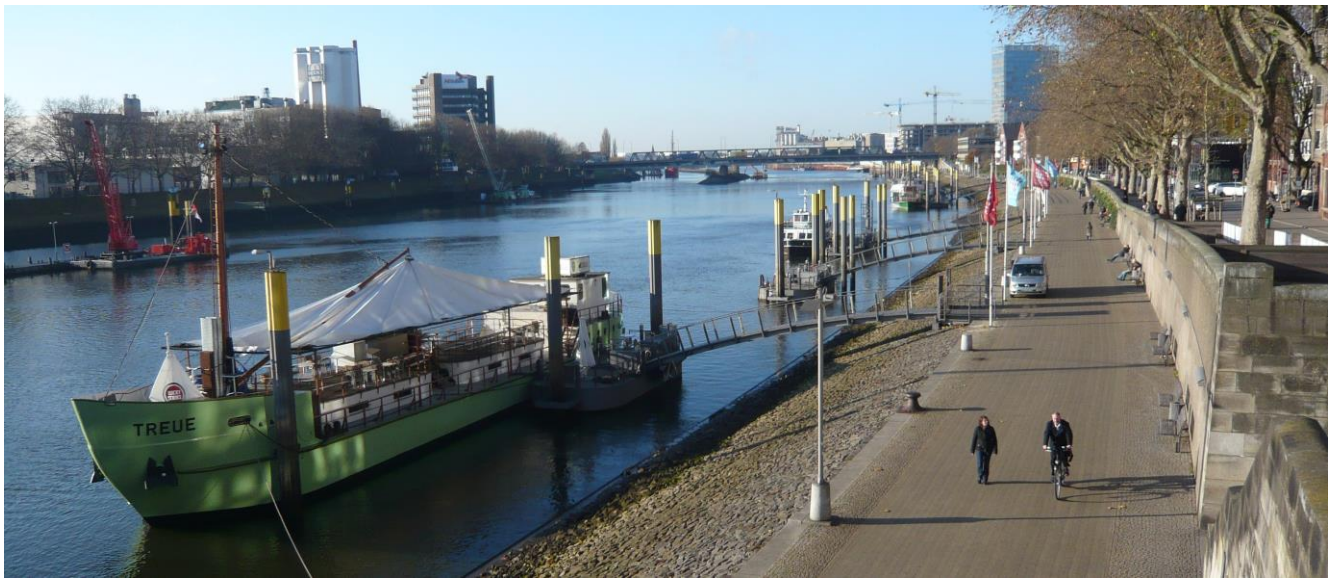

Figure 17. Reclaimed space in Bremen

In 2014, Bremen developed the "*Verkehrsentwicklungsplan 2025*" (Sustainable Urban Mobility Plan 2025), to set the strategic framework for the future development of transport in Bremen. The SUMP addresses all journey purposes, all modes of travel and all transport networks for non-motorised modes and for motorised travel on roads and rails.

Six overarching goals with several sub-goals are set as guidelines for the development of the measures and as a basis for evaluation:

- An increase in social inclusion
- A higher level of road safety
- Optimisation of commercial traffic and accessibility of Bremen as a regional centre
- More and better services for environmentally-friendly modes of transport
- Linking of transport systems
- Strengthening of walking, cycling and public transport – including between the city and the surrounding region
- Fewer negative effects on people, health and the environment.

These goals were the result of a public discussion and marked the start of the development-process for the SUMP (see Figure 18). The process of developing the SUMP took two years with a broad participation process. In all five phases, the public interest groups could submit a statement on the process.

The whole process was designed as a planning dialogue through all phases with specific forms of participation for the target groups – e.g. citizens, politicians and public interest groups. There were four evening events in each of Bremen's five boroughs where citizens could speak directly with the consultants leading the process as well as with the local administration. Additionally, an interactive participation portal was implemented. In the end, an innovative toolkit for the participation process was developed.

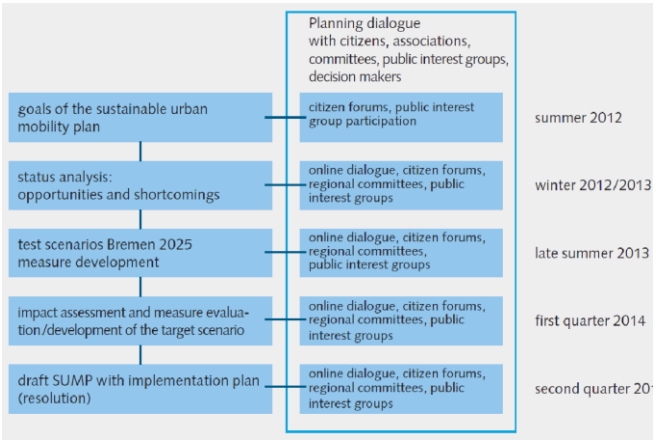

Figure 18. Stages of the Bremen SUMP

The participatory approach helped achieve a better plan, and some of the proposed measures are already being implemented, such as the "*Querungshilfenprogramm*", a program supporting and financing the installation of crossing aids.

Additionally, the "Team Nahmobilität" was created. This is a team of three planners focused on local mobility like walking and cycling, which is an innovative measure, as it is one of the first teams in Germany dealing jointly with walking and cycling.

5.10 Walk Lisbon! Lisbon's Pedestrian Accessibility Plan

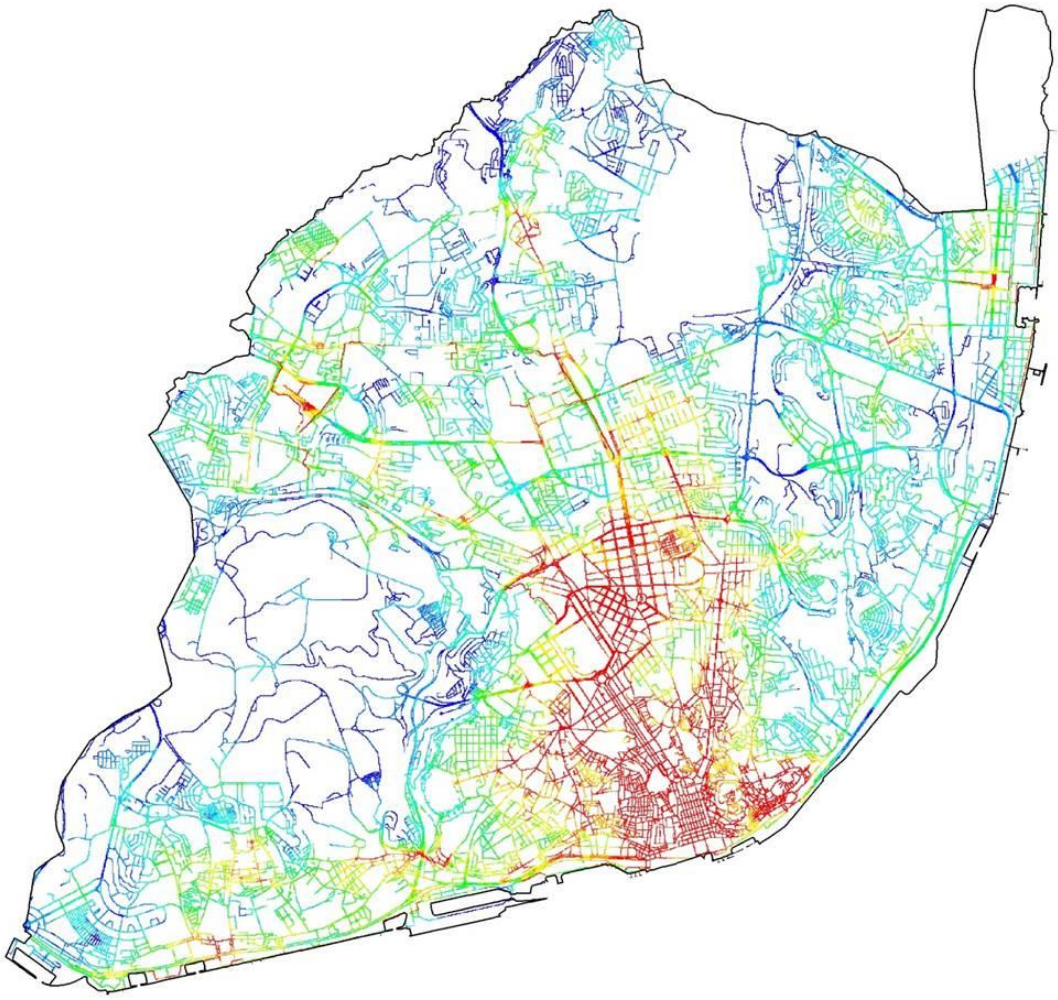

Figure 19. GIS map of Lisbon showing Pedestrian Potential in the city

The City of Lisbon prepared a pedestrian accessibility plan as an essential building block for their sustainable mobility policy.

A GIS analysis of the city explored the two issues considered most problematic for walkers – topography and pedestrian crashes. Despite being famous for 7 steep hills. the survey revealed 75% of the street network had low inclinations. Furthermore, the crash analysis revealed more victims were hit on the crosswalk or its immediate vicinity than anywhere else, with more than a third of all fatal and serious victims being elderly citizens. A map of pedestrian potential was created for the city (see Figure 19).

In response, a large participatory session got the city's public space and traffic officials working together with community organizations from various sectors: disability, child safety,

pedestrians, automobile clubs, public transport operators, and more. They were asked what they thought were the biggest obstacles to people walking more in Lisbon, and above "money" were: *"pedestrians are treated as secondary"*; *"there is no political commitment"*; *"the City doesn't set an example"*; and, *"there is inefficient management and oversight"*.

It was agreed to make a significant cultural shift at the city authority level to address the concerns. A strategy was developed based on the following principles:

- **Clear and operative political commitment** – Political will was converted into clear priorities where technical officials could find guidance for day to day dilemmas – for example, do we chose safety over traffic speed, flow, or parking? The City Council agreed to spend 3% of the annual budget for public works on pedestrian accessibility.
- **Research and design models** – New design models were developed through good practice reviews and user testing to support the detailed standards required for delivering better crosswalks, bus stops, sidewalks and traffic calming measures.
- **Multi-disciplinary teamwork** – A central planning team-coordinated advice, developed tools, motivated staff, built public support and lead by example.
- **Capacity building and support** – Capacity building was made a cornerstone of the delivery strategy - manuals and training were backed up with new tools, practical advice, in-house consulting and technical support to steer the entire decision making and delivery process in the authority.

Through the process, the pedestrian network of transport infrastructure was made visible by the plan and evaluated to ensure it responded to the functional needs and safety requirements, especially considering its most vulnerable users. The City Council has allocated at least 3% of the budget for public works to be invested in pedestrian accessibility each year.

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