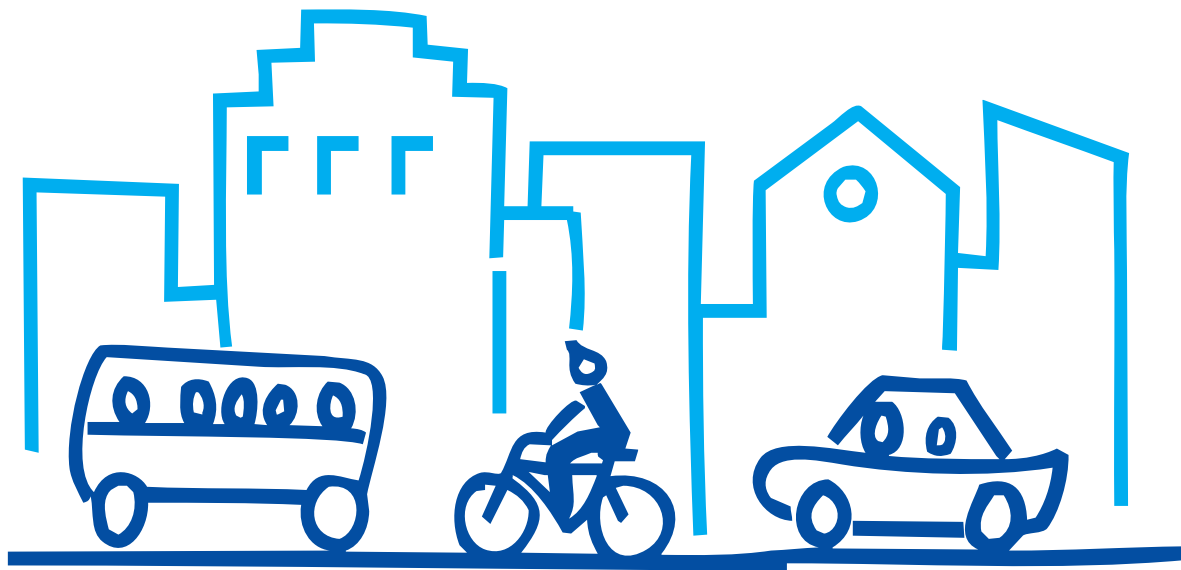




Enabling Cycling Cities

Ingredients for Success





CiViTAS

Cleaner and better transport in cities

MIMOSA

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INTRODUCTION

City administrations across Europe and beyond have made real progress in planning and providing for cycling in their cities. Support both for cycling measures and this book has come from the European Commission. Their support has been most valuable, but this was not the start of their involvement. In 1999, the then European Environment Commissioner, Ritt Bjerregard wrote the following foreword to their publication 'Cycling: The way ahead for towns and cities':

'Every day European cities demonstrate that a reduction in the use of private cars is not just desirable but feasible, ... [Many cities] apply incentives that favour public transport, car-sharing and bicycles, along with restrictive measures on the use of private cars in their town centres. These cities do not harm their economic growth or access to their shopping centres. In fact, they promote them because they understand that unbridled use of cars for individual journeys is no longer compatible with easy mobility for the majority of citizens.'

The same publication helped to correct long held negative prejudices related to the use of the bicycle as a regular mode of transport in the urban environment. It also suggested some simple, inexpensive and popular measures, which could be implemented immediately.

Much has happened since, and in the decade that followed the European Commission kept supporting cycling with strong policy inputs following the call for action of the second Global Cycling Conference: 'Velo Mondial 2000' in Amsterdam. The 'Green Paper on Urban Mobility' and the 'Action Plan on Urban Mobility' singled out several priority actions that are in line with the quest for more cycling and suggested that cycling should be an integral part of urban mobility policies. Cycling in cities has been steadily gaining momentum; more and more citizens are embracing cycling, and public bicycle systems are a familiar sight in many cities across Europe.

This public support is spurring cities to develop and integrate cycling in their mobility policy, and Europe to intensify funding opportunities. The Structural and Cohesion Funds and the INTERREG programme support cycling. In February 2013 the members of parliament (MEPs) have decided to include cycling within the Trans-European Transport Network ('TEN-T') guidelines. CIVITAS, the EU Flagship Initiative promoting sustainable urban mobility, promotes several cycling measures with success. The Executive Agency for Competitiveness and Innovation (EACI) has a tradition in funding cycling projects.

Cities today recognize the personal and societal benefits that cycling can potentially afford. It is cost effective, fast, clean, flexible and efficient, and should thus not be developed as a stand-alone policy if it is to contribute to other objectives like sound environment, social cohesion and economic development.



This publication, 'Enabling Cycling Cities: Ingredients for Success' comes at a very important time for cities and also for cycling. More people are living in urban areas than ever before - for many countries in Europe the number is approaching 80% and is growing. At the same time there is a challenge to make the cities more sustainable, more efficient, safer and also more liveable.

In this fast-moving dynamic, urban cycling planning is reaching a new level of maturity that allows the bicycle to make a strong contribution to humanising the city. There are many positive examples that can save decision-makers time and ensure their investments in change are made wisely. However it is important for politicians and city executives to remain flexible and know which examples are most helpful for their particular cities and challenges.

The aim of this book is to help the many cities who realise that they have to act, not just to make cycling happen but also to make cycling an integral part of their wider urban mobility plans.



EDITORS' NOTE

Cycling is an increasingly hot topic on the policy agenda of cities worldwide. Everywhere citizens call for and welcome more opportunities to move by bicycle, user groups are louder in their quest for more organized and safer cycling, and also the press keeps cycling under the magnifying lens.

There are cities that have fully embraced cycling by integrating it in the overall transport planning, others that are using public bicycle systems as a lever to get cycling in the planning agenda, and cities that are just coming to realise that cycling is a viable and vastly untapped transport mode.

While it may not be the single definitive answer to our cities' distress, cycling holds considerable potential for trip replacement and affords personal and societal benefits like no other transport mode. And all this comes at an economic cost that is much lower than any other investment in transport.

There is ample literature and empirical evidence describing how cycling should be dealt with, including compilations of good policies and practices, guidebooks explaining the details of countless cycling measures, national and international infrastructure design manuals. Still, there is a comparatively low level of understanding of how the many pieces composing the cycling puzzle should synergistically come together. A successful cycling policy is in fact the result of many factors: political vision, sufficient budget, sensible prioritisation, inclusive design, competent execution, and targeted communication. This does not mean that good policy generation is always overly complicated or difficult, but one should be aware of and consider the many aspects that cumulatively bring success.

Enabling Cycling Cities: Ingredients for Success is a contribution to the body of knowledge in the field of cycling planning. It provides local authorities, particularly policy executives and city planners, with a limited number of no-frill and evidence-based facts that could help to solve the puzzle. This publication is an invitation to take cycling even more seriously. It positions itself between the policy books aiming to inspire political decisions and technical guidebooks aiming to oversee the detailed execution of cycling measures.

Enabling Cycling Cities: Ingredients for Success looks at cycling with the eyes of cities trying to establish common ground and institutional consensus. In the background, however, is always the most important and often unpredictable part of the equation: the people.

Together with this book, a portal website will be launched that will link cities to other websites and sources to provide them with a wide variety of information and let the debate continue.

Mario Gualdi, ISIS, Rome

Pascal van den Noort, Velo Mondial, Amsterdam



BOOK STRUCTURE

Enabling Cycling Cities: Ingredients for Success unfolds in two main sections: I) *"Birth and growth of a cycling vision"* presents and explains the pre-requisites to the foundation of a cycling policy, and II) *"Discerning and inclusive design"* expands on the essentials in designing and accompanying the programme itself. Both sections provide concrete and argued tips, corroborated by practical examples as well as personal viewpoints of policy executives from Europe and beyond.

The publication starts with *"The essence of senior political and executive commitment: success stories and prejudices"*, which examines the role of politicians and other city executives in supporting cycling with conviction and resolution to put the money where the mouth is.

"Securing long-term financial investments: from classical to more creative ventures" underlines the importance of endowing cycling with steady financial flows to ensure growth and credibility. Patchy and erratic investments are the ultimate deterrent, particularly when it comes to mobility options that must already overcome cultural and behavioural prejudices.

"Integration beats isolation: equal planning dignity delivers dividends" stresses the need to integrate cycling planning in the broader context of city or regional transport planning. Organic cycling provisions afford legitimacy and are more effective and economic than retrofitted interventions.

"An empowered delivery team: skills, motivation and manpower, the recipe does not differ" expands on the critical role of cycling delivery teams, which is to possess strong appreciation for cycling as well as specific expertise and adequate manpower for the task. This is often not the case, with many European cities relying on improbable and miniature units that are mere symbolic set-ups.

"Support and engagement of local stakeholders: strengths and boundaries of partaken decision making" takes on the increasingly visible role of grassroots movements, which tend to become more vocal the weaker the political stance is. Environmentalists, neighbourhood councils and cyclist associations represent a strong potential lever and a competent counterpart for any mobility department. It is critical to tap into these highly motivated groups early on in the planning process to stimulate the generation of ideas, the understanding of mutual needs, and the ownership of a final decision, which must firmly stay with the authority.

"A supportive institutional coalition: synergies with relevant authorities to dodge obstructions" describes the pitfalls of institutional fragmentation and competition, which frequently lead to policy ineffectiveness and dysfunction, with provision overlaps or lapses. Obtaining a cross-departmental common vision on cycling is not an easy task, but must be fostered with determination as it is conducive to a speedy success.



"No solution fits all: adapt the programme to the local context, priorities & opportunities" advocates the notion that the wheel does not need to be reinvented each time, but simply adapted. The design and implementation of a cycling programme should be dealt with by keeping an open minded towards the initiatives of other cities, and custom-tailoring the most promising ones to the receiving cultural, topographic, financial, and infrastructural context.

"Understanding and valuing the audience: the focus is on 'people' and their habits, strengths and weaknesses" expands on the sensitive issue of personal perception and responsiveness, which for cycling is perhaps more challenging due to the strong association with safety, physical exertion, comfort, freedom, flexibility, accessibility and inter-operability. Because these considerations can be at once selling or losing points, it is of the essence to fully understand people's habits, fears and preconceptions, and closely listen to their needs and suggestions, making sure that cyclists are seen for what they are, thus a heterogeneous conglomeration of different age, cultural and socio-economic groups with diversified ambitions and necessities.

"Handling hard and soft measures: first tackle the must have, then the nice to have" tackles the classical chicken and egg dilemma: better investing first in infrastructure or in smart services? Though no prescriptions exist, cities must clearly provide for both depending on the local context conditions. What is not going to work is a programme that expects to trigger more cycling by purely investing in individual offerings, such as additional cycling lanes, a new bike-sharing scheme or an umbrella promotion campaign. The charm is in balanced hard and soft provisions, and in the integration with the rest of the transport network.







BIRTH AND GROWTH OF A CYCLING VISION

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"The involvement of elected representatives is strategic to carry out policies requiring supporting behaviour changes in mobility habits. To obtain positive results in terms of cycling practices, it is necessary to conduct proactive policies for the development of infrastructures and services and to bet on major communication actions. A strong political support is therefore essential to these efforts.."

*Jacques Garreau,
Vice President of the Greater Nantes*

CHAPTER 1. THE ESSENCE OF SENIOR POLITICAL AND EXECUTIVE COMMITMENT

Political and executive support is essential for any policy-based endeavour. Making cycling a concrete priority in urban mobility planning requires strong political conviction and resolution.

This chapter considers the essence of senior political and executive commitment in providing support across policy areas and parties, building an effective administration, facilitating public participation, and in general boosting the cycling activity in cities. The city lessons of this chapter are supported with examples from Vienna and Copenhagen.

Lead Contributors:

Niels Tørsløv, Director of Traffic, City of Copenhagen and
Maria Vassilakou, Vice-Mayor, Vienna



1.1 High level commitment to boost cycling shares

Increasing the number of people cycling in a city requires strong political conviction and resolution. This conviction must be present at the highest political and management levels in order to set concrete and quantitative objectives towards boosting cycling shares.

In 2010, the coalition government of the Social Democratic Party and the Green Party of Vienna stated an ambitious goal of increasing the share of cycling from five to ten percent in their city by 2015. While many saw this work as simply a dream or vision that cannot be implemented, the objective gained strong senior commitment because it was seen as one of the most relevant measures of the Vienna city government's environmental policies. As a result, Vienna is on target to meet this objective. The share of cyclists increased by 20 percent in 2011, and Vienna reached a share of nearly seven percent in 2012. Ambitions will depend of the starting point. From a more developed cycling share of 37%, Copenhagen is still having high ambitions of another 50% increase in bike use, safety and comfort.

To be successful, politicians must be able to clearly express their cycling vision and its benefits, while at the same time offer solutions to deal with the possible disadvantages. An example of a classic conflict faced in Vienna resulted from plans to change infrastructure and open on-road parking areas to cycle traffic. To effectively manage this, compensation measures were described to help account for the loss of parking space, comprehensive awareness raising campaigns were organised, and public participation was solicited to outweigh concerns and gain support.

Many politicians have been inspired to support cycling in their city once they see that cycling works in other cities. Well-developed cycling cities like Copenhagen, Amsterdam, Munster or Nantes serve as showcases for different levels of cycling culture. They are usually very welcoming to visitors and also proud to showcase their cycling culture. Another source of inspiration can be a visit to the international cycling network including the European Cyclists' Federation (ECF) or an examination of the best practices of the Danish Cycling Embassy or the similar Dutch Cycling Embassy.



1.2 Commitment across fields and political parties

Cycling policy is not a single issue of transportation, but widespread across almost all policy fields and political parties. With broad commitment from the various policy departments, cycling initiatives can more easily be integrated into long term political ambitions to raise air quality, cut carbon, improve public health and increase liveability and the general feeling of safety by having more people on the streets.

In Copenhagen and Munster, for example, cycling initiatives are meeting carbon cutting goals in politically approved climate plans. In Vienna, political leaders realised first hand that cycling is a cross-cutting topic reaching beyond traffic and transport planning and adapted their administrative structure accordingly. The government established a steering group consisting of the heads of the relevant municipal departments to underline the importance of cycling in Vienna.

Because of the involvement of many policy areas and opinions, dedication to cycling is no longer attached to traditional left wing vs. right wing perspectives. Conservatives, liberals, green parties and socialists can all adopt a cycling approach. As witnessed in Copenhagen - most cycling initiatives are approved by a strong political majority, which can be attributed to high level of commitment across party lines.

A strong commitment within the various areas of the administration also helps maintain ongoing and beneficial relationships with stakeholders including police departments, cycling communities, car owners associations, public transport companies and also organisations dealing with retail and shopping. Without proper relationships in place there is only a weak chance to predict their response or to make valuable win-win solutions. And, when the housing team cooperates with the health team which is linked to the public transport and education teams, then plans for cycling can work even better and have greater impact.



"If there is political consent about promoting cycling, ideas, measures and campaigns are more successful, accepted and sustainable."

Hans-Peter Wessels, State Councilor of the Canton of Basel-Stadt, Switzerland

1.3 Senior Political and Executive support for Making it Happen

Strong senior political and executive support is necessary in order to build an environment that can meet the cycling objectives of a city. Well-educated and experienced leaders understand the political logic of how a city works and how it can be translated into the professional tool box of the civil servants. They understand the variety of terms and conditions that are closely linked to cycling and how to create and work with an administrative structure and staff that will be supportive and able to respond to change.

The ability and willingness of leaders to facilitate change is crucial and will influence the time needed to form an administration that can drive the desired changes. A shift in traffic policy towards a more human scaled and bike friendly city includes necessary changes in the administration which may require either an alteration of the professional set of values or the addition of new competencies. In Vienna, it was important to adapt the administrative structure in order to increase the share of cyclists. The staff who were initially responsible for cycle traffic in the city lacked the necessary resources. The Vienna City Administration therefore decided to establish a "mobility agency" that supports the concerns of cyclists and pedestrians, and also nominated an Officer for Cycling Matters. In Copenhagen, the role of dedicated staff has proven effective since 2005. Today all staff members and leaders involved have the basic cycling knowledge necessary. The dedicated staff only have to deal with strategy improvements and preparing the next steps.



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An alternative to establishing an agency or parallel organisation is to hire a well trained and well respected consultant. In that case it is important that the knowledge is properly imparted to the staff and will not disappear when the consultant leaves the office. A third approach is to train city staff in house to incorporate cycling in all their plans. Experience has shown that for cities with low historic cycling culture it may be advisable to set up an agency, while for those with greater awareness of cycling it can probably be more quickly effective to train all existing staff. The choice of management tool will depend on the starting point, the expected deliveries, the acceptance by the colleagues and the capabilities and skills in the present situation.

A quick responding administration that can produce concrete results is also important. It must be prepared to produce credible documentation to show that the new initiatives will work as proposed and to convince the doubtful about their advantages. Documentation on new cycle facilities must be in place, especially related to modal split, traffic safety, perceived safety and possible effects on car parking. It can also be invaluable to have a bank of well thought concrete projects. The demand for new ideas and pro-bike projects will often appear with a very short notice. In this situation it is priceless to be able to respond quickly with new concrete projects, and to have leaders of the administration set this as a priority.

Another important part for the administration is to take into account the power of the press. The communication of the plans and vision can be just as important as the plans themselves. Many businesses, parents, and other social groups will not understand modal split and need to be convinced that the cycle-friendly plans will work for them and are well considered. Local media often seek to expose unkept promises, lack of actual results, slow working civil servants and misuse of public money. An administration with weak power of execution can earn this kind of media attention. It is therefore especially important that senior leaders gain support from stakeholders and commit to communicating a consistent and thoughtful vision.

1.4 Political Support on the Street

Commitment to cycling from senior leaders should be seen on the streets. Politicians and senior executives are in a great position to communicate with and set an example for the citizens they serve.

In Copenhagen, the streets communicate that the city administration appreciates its bikers. Attractive visual installations such as the cargo bike shelter, the footrests at signalized junctions and the inclined dust bin have worked efficiently to communicate the city's ambition of serving bike users well. Even though the actual numbers of street equipment are rather small, the sites are well known because they are meaningful and memorable. A similar effect is linked to bike shelters, cycle counters and other kinds of cycling equipment. While these send a message of appreciation to the already convinced, current cyclists are tempting the next bicycle users.

Some cities can spend too much time appreciating and listening to existing cyclists at the expense of reaching out to those who do not cycle to find out why they are not and what would make them start. This latter route is more challenging but more rewarding over time. Insights into better understanding and valuing the human behaviour and choice are discussed in Chapter 8.

Senior political support of incentives and awareness raising campaigns is critical to improving the acceptance of cycle traffic in the city. The City of Vienna, for example, invests regularly in motivation and awareness raising measures. From March to October the City organises a large range of activities including an annual bike festival. This event, held in front of Vienna City Hall, is one of the largest bike events worldwide and attracts more than 100,000 people. Innovative campaigns in Vienna include the creation of a FahrRADhaus, or "bicycle house" in 2012, which serves as a contact and meeting point for discussions, exchanges, and everything regarding cycling, and an upcoming bike bell concert and a bike fashion show.

Finally, there is nothing like seeing your elected politicians doing what they are asking citizens to do and a picture of a politician cycling is worth more than a 1000 words. The Conservative London Mayor Boris Johnson has done it. He can be seen regularly in the streets on his bicycle and this makes his support for cycling very visible while giving him first-hand knowledge of cycling conditions. Social democrat Riitt Bjerregård and Social Liberal Klaus Bondam did it in Copenhagen. And Green Party Deputy Mayor Maria Vassilakou is doing it in Vienna. They all share a strong commitment to increase cycling and they have all gained popularity in doing so.



"If your city is starting from a low level and want to change the way that people are behaving, my recommendation is that the Mayor should lead the way. The most important thing is to start with yourself as a personal example. If it works for you as the Mayor, it will work for the city."

*Mr. Steen Møller,
Mayor for Culture and Urban Planning, Odense*



1.5 Conclusion

Drawn from experiences in Vienna and Copenhagen, the following lessons can be helpful and adapted to cities looking to promote cycling in their regions.

- Make sure that there is a high level of commitment to boost cycling shares in the city and a concrete or quantitative goal.
- Make sure that there is broad political commitment for cycling across all policy fields and stakeholders.
- Make sure that there is a sufficient and supportive administration and administrative structure - administration should be able to cope with change, prepare credible documentation, and communicate a consistent and thoughtful message and vision.
- Make sure that there is a permanent improvement of cycling infrastructure supported by senior leaders.
- Make sure that there is high level support by for a public campaign on public awareness raising to bring people to cycling.



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CHAPTER 2. SECURING LONG TERM FINANCIAL INVESTMENTS:

While modest when compared to many investments in urban mobility, cycling programmes need a steady and reliable financial flow to ensure comprehensive deployment. Patchy and erratic investments are the ultimate deterrent, particularly when it comes to mobility options that must already overcome cultural and behavioural prejudices. A well-planned and consistently financed package of interventions including infrastructure, promotion and regulation is key to enabling cycling. This chapter explores the strategies that move cycling up in the funding priorities. Lessons learned throughout cities in the US, including Chicago and New York, as well as European cities are highlighted in this chapter.

Lead Contributor:
Randy Neufeld (SRAM Cycling Fund)





"From a point of view of political economics, cycling has a brilliant cost-benefit calculation."

Lisa Rücker, Deputy Mayor of the city of Graz

FROM **CLASSIC** TO MORE **CREATIVE** VENTURES

2.1 Where's the money going to come from?

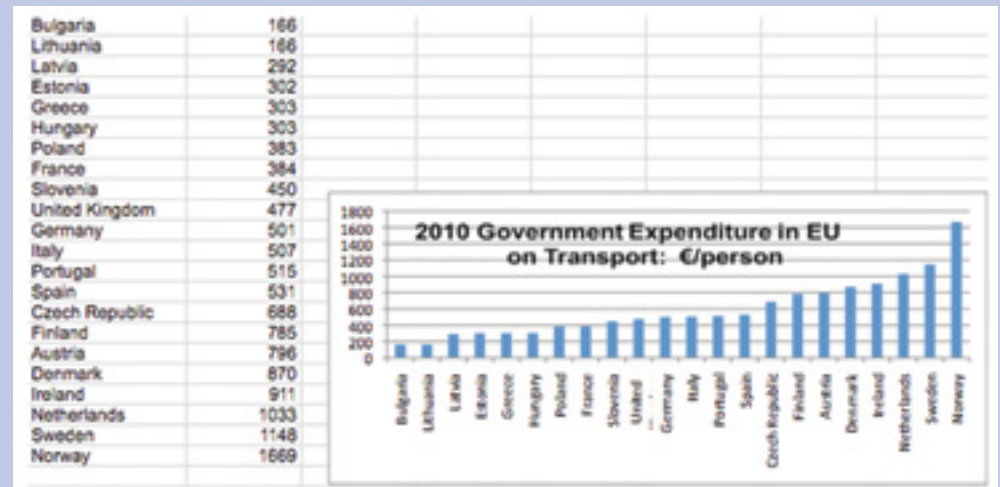
In the mid '90s Chicago was trying to fix safety issues at the intersection of the popular Lakefront bicycle trail and a large roadway. In a meeting at the Department of Transportation, there was a long discussion about different options before it was decided that a building stairway needed to be removed to provide better sightlines and make more room for the trail. While effective, this solution was harder and more expensive than other options. Before the meeting adjourned, one of the engineers asked, "Where's the money going to come from?" There was an uneasy silence in the room. The head city engineer replied, "We'll find the money."

In previous years, "Where's the money going to come from?" would have stopped progress completely. City transport leaders who had limited funds were accustomed to using these limits to say no to projects that were not political priorities. "We'll find the money" meant cycling had risen to a new level with city leadership.

2.2 Competition for available transport funding

While cycling infrastructure can be relatively low cost compared to other modes of transport, it still competes with other funding needs. If cycling measures can be planned holistically, or at the same time as other improvements (e.g. housing, parks roads), then the cycling element can be very cost-effective. Building a cycling network requires decisions to use a city's transport budget in new ways.

The good news is that government entities spend vast amounts of public funding on transport. Per capita levels of government expenditure are often surprising. Even in distressed economies, transport funding is always flowing at some level. Figure 2.1 depicts spending in European cities¹.



The challenge is that project demands always exceed available funds. Transport plans often identify projects that will use up all funds for many years to come. If cycling projects get funded, other projects will need to wait for future funding cycles. Influence on the decision makers must be greater than at least some of the competition so that cycling is not the lowest priority.

¹ Eurostat, data update 20-07-2012



"A sustained funding programme for cycling is very important, in combination with funding for other policies. Funding for cycling can also be a tool to help achieve policy aims in other areas, for example children's health."

Mr. Steen Møller,
Mayor for Culture and Urban Planning, Odense

2.3 Overcoming common challenges in four stages

Funding flows from a vision, or decision by politicians, city officials and people on how they want their city to be. Funding is how that vision can be made real - efficiently and in a cost-effective way. The opportunities, funding systems and political structures in different cities, regions and countries vary widely. However, in every circumstance there are transport budgets and funding programs, and leaders in the government and transport agency who make decisions about what happens to those funds. There are significant demands on those funds and the decision makers must first find part of their budget for cycling.

Cycling programs do not need just one time project funding but ongoing sustainable funding to retrofit, build, maintain, improve, promote and grow the cycling network. But most do not begin with long term funding. Four stages to developing a strong sustainable cycling funding base include demonstration projects, policy-driven funding, routine funding, and accelerated success. Different cities and situations will require different levels of attention to these stages. Ideally, each stage should be executed with the next stage in mind.

2.3.1 Stage one: Demonstration projects



Cities that lack good cycling infrastructure may need to start somewhere to create momentum. Trial projects, such as a temporary bicycle parking project or cycle tracks can get over the inertia and fear of change by establishing initial success and laying the groundwork for permanent installation.

Some of the best examples of using pilot projects to transform streets were led by Commissioner Janette Sadik-Kahn in New York City. The city has used pilot projects to turn streets into public plazas for pedestrians and to introduce protected cycle tracks to the city.

The most effective pilot projects increase decision-makers' appetite for more. Some tips to keep in mind if your city is embarking on a pilot project include:

- ▶ Keep decision makers actively involved.
- ▶ Remind stakeholders that the risk is low because the project is reversible and can be removed if it doesn't work.
- ▶ Give decision makers credit for the success and the vision.
- ▶ Use the temporary status to tweak the project and correct problems.
- ▶ Demonstrate that there is mainstream demand and popularity.
- ▶ Demonstrate that common objections are not grounded.



Temporary projects are usually lower cost and build confidence and support for the higher priced project where concrete is poured.

Often non-traditional funds or funds that are less competitive can be found to do demonstration projects. For instance in Chicago, the first on-street bike parking racks were funded with a small amount of money that was available in a guard-rail contract. Rack designs and different installation configurations were tested around municipal buildings. Once the rack type and installation procedure were established, an air quality grant for more than 30 times the rack costs was secured that began the installation of thousands of bike parking racks citywide.



Funding for demonstration projects can come from outside of the transport sector, from agencies interested in a health, energy or environmental benefits. Spain's energy agency's interest in starting public bike systems is a good example. While the number of public bike systems has grown exponentially worldwide, Spain witnessed one of the fastest growths. The reason for this is the 2008-2012 Action Plan for Energy Efficiency by the government's Energy Saving Institute (IDEA). Their start-up subsidy has led to 135 active systems in 184 cities with a total of 26.000 public bicycles. Every city is required to work on a sustainable energy plan and a public bike system is an easy choice with up to €165 000 available to get it going. The municipalities are responsible for ongoing funding with the potential for user fees and advertising revenues².

2.3.2 Stage two: Policy-driven funding

Once a city has experienced even a very small success, it is time to reach for a sustainable program. This involves both creating a cycling master plan and adopting other policies to modify the existing transportation planning and design process so that cycling is routinely considered in all transportation projects.

Cycling infrastructure is commonly built as a component of larger infrastructure projects. An example is a cycle track included as part of the reconstruction of an arterial roadway. Usually, in such cases, the cycle track is not funded as a separate line item, but the cost of the cycle track is included in the overall project budget. This type of integration is an effective and the inclusion of cycling infrastructure within larger transport projects can often be made a matter of policy.

In the United States the complete streets movement has achieved nearly 500 state and local policies that require balanced accommodation of all modes in all phases of all transport projects.

For Europe there are many models of policies and standards for cycling accommodation in road projects. A good starter resource is the Presto Cycling Policy Guide on infrastructure. The goal is a policy that ensures that all new construction and reconstruction contribute to the cycling network.

²Esther Anaya and Alberto Castro, Balance General de la Bicicleta Pública en España (Girona: IDEA, 2012)



2.3.3 Stage three: Routine funding

Unfortunately it would take many decades to build out a cycling network if a city had to wait until every road was rebuilt. Timely implementation of a cycling network requires a series of independent retrofit projects. These are usually prioritized in a cycling master plan. Most cycling programs have an annual budget amount that is supplemented by special project funds, often from regional or national programs. In the United States it is common for the regional or national programs to have a match requirement; often 20% to 50%. Then the local funds, including locally funded staffing, is used for this match.

Successful projects can be the basis for the budget support of champions for the bicycle program across the board. In Chicago, since his election in 2011, Mayor Rahm Emmanuel's campaign promise of 100 miles of new protected cycletracks in four years has driven strong support for a variety of bicycle program activities beyond that initial promise. Historically, Chicago's bicycle program has not received an allocated amount of unrestricted funding but a variety of project grants are assembled to cover staffing, public relations, education, planning and network expansion. Political support for cycle tracks snowballs into support for public bike systems, promotion and safety education.

Measurable progress can also help ensure continued and increased funding. In Rostock, Germany funding for the cycling program grew by more than four times to over €400.000 in response to data that showed that cycling had risen from 12% to 20% in the last five years.³ More money for cycling infrastructure can lead to more people cycling which builds the support for more funding. Hopefully this pattern continues to repeat.

Funding sources outside of transport are also a resource not always considered. Sevilla, Spain used €12 million from Plan 8 000, a local development and jobs program to build the second phase of their initial €32 million cycling network.⁴ Requiring or persuading private developers to build or pay for portions of the network that serve their developments is becoming more common. Road safety, energy and environmental programs that may also fund soft measures such as promotion, education and enforcement.

³Thomas Möller, ADfC, 2012

⁴Ricardo Marqués Sillero, Sevilla: una experiencia exitosa de promoción de la movilidad en bicicleta en el Sur de Europa (Sevilla: Hábitat y Sociedad, 2011)



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"Compared to the many millions of dollars and years needed for capital projects on bridges and roads, cities can put down a life-saving network of bike lanes in something close to real time."

Janette Sadik-Khan,
Transportation Commissioner, New York

2.3.4 Stage four: Accelerated success

Once the bike program has been funded, it can be easier to push for the next level than it is to maintain a plateau level of funding. It is vision and drive that keep champions interested. And, it is often the external competition with other cities in the region, nation or internationally that fuels big funding increases. Pointing out the virtues of other cities' cycling networks and challenging emulation or competition can have a positive impact on influencing decision makers.

In 2009, a Danish coalition led by the Cycling Federation, the Cancer Society and the Consumer Council won €135 million for cycling infrastructure; the first national funding for cycling infrastructure in Denmark. There were several reasons they succeeded:

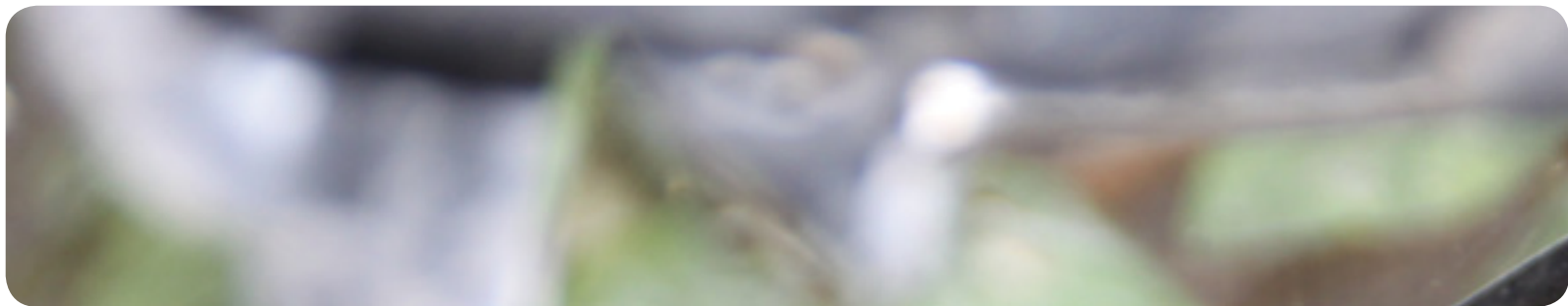
- Showed mainstream strength through a partnership with public health and consumer NGOs with membership representing 10% of the Danish population;
- Used evidence based arguments that show cycling infrastructure is an effective health measure;
- Asked for funding that would incentivize municipalities to double match the funds;
- Asked at the right time when the transport budget was being debated;
- Appealed to all parties by using diverse arguments covering health, congestion and climate;
- The winning argument: Denmark can surpass the Netherlands.



2.4 Conclusion

There are many good models to win funding for cycling networks for whatever stage of development a city is at. Four stages are presented in this chapter that take a city to the next level. At each stage there are strategies to help champions in government influence stakeholders and implement transport funding decisions that favor cycling. Funding and planning models chosen must be well suited to that city, sustainable and adaptable. Tools and stories have been shared here to inspire advocates and champions and give practical advice on how to make progress. Get ready to go from "Where's the money going to come from?" to "We'll find the money."





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CHAPTER 3. INTEGRATION BEATS ISOLATION: PLANNING DELIVERS DIVIDENDS

Provided that investments are materially available, the fate of cycling is tied to its consistent integration into all relevant territorial plans. Land use and transport planning at metropolitan areas cannot overlook or regard cycling as a subordinate or trivial aspect, without seriously straining the effectiveness of this mode. Also, considerable inflated costs would be incurred to eventually retrofit interventions that neglected cycling provisions. A shared vision of cycling and its vital role in urban mobility is thus required of the planners who help shape the future of a city. Experiences from the UK and the Netherlands support the lessons expressed in this chapter.

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3.1 Including cycling in a planning vision

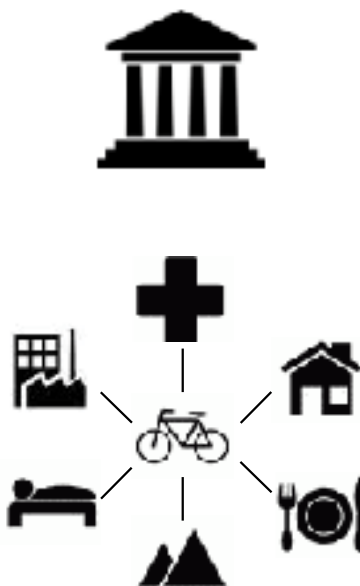
Exemplary bicycle friendly cities and towns have incorporated cycling into their visions for land-use planning, transport planning, spatial networks, and future developments for the city. Including cycling improvements into pre-existing plans or funded projects can be a good first step. This integration allows the bicycle to influence the spatial structure, traffic networks, and development of a city over time. An approach that includes a shared vision of cycling is more balanced and effective than one which bases its cycling programme on concrete on-street projects, as visualised in Figure 3.1.



Planning from a vision perspective

Strategic
level, 'city hall'

Policy, vision



Spatial
structures and
networks,
accessibility

Local level,
street

Projects,
problems

Planning from a project perspective

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When plans for cycling planning originate with a vision, the on-street projects are strategic interventions that fit into the bigger picture of what the city is and wants to achieve. The strategic interventions can be cycle paths and cycle tracks that make a cycling network more complete or the densification of the urban areas surrounding stations to facilitate more people living and working near a transit hub. While plans originating from projects themselves can provide local solutions, they often do not scale to higher levels. An example is the implementation of a 2km cycle track that does not link to a cycling network, or the realisation of bicycle parking facilities that are not well connected with the cycling network and locations that (potential) cyclists visit.

Stating specific cycling objectives in urban planning has shown to be effective in both the Netherlands and the UK. One approach adopted by the Netherlands in the 1970's was to require a cycling checkbox on all development applications. The checkbox continues to influence planners by asking whether or not the needs of cyclists are considered.

Even when cycling is stated as part of a nation's vision, it can be left to each local authority to interpret this guidance in their own development efforts. One of the aims of the UK's national Planning Policy Guidance on Transport for example is 'to encourage sustainable means of travel such as walking and cycling' (PPG13, DfT 1994). However, since walking and cycling are linked together, subsequent measures can fail to address the individual needs of each mode. Without specific objectives developers have little incentive to improve conditions for cyclists.

For example, in the central London Borough of Camden, objectives for cycling were clearly referenced in their local development framework (LDF). These included the provision of new cycle parking, cycle stations (hub areas with secure covered cycle parking and changing facilities), new or upgraded routes for cyclists, and the continuation of the London Cycle Hire Scheme (LDF, Camden Core Strategy, 2010). In contrast, in the outer London Borough of Bexley, no specific cycling objectives are mentioned, and where cycling is mentioned, it is referenced with walking (LDF, Bexley Core Strategy, 2010). Not surprisingly, Bexley has one of the lowest modal shares for cycling in London whereas Camden has one of the highest.

It is also important that language or legal status is considered in the planning vision to further motivate local authorities. The Welsh Assembly consulted on an Active Travel Bill (Welsh Assembly, 2012) in Summer 2012. If enacted, the Bill will legally require local authorities to identify and map an existing network of safe walking and cycling routes and develop enhancements through a prioritised list. Authorities will then be required, subject to budget, to deliver the proposed networks and also consider walking and cycling in any new road schemes. Although walking and cycling were grouped together, they will be treated separately in the Assembly's response to the consultation.

3.2 Land-use planning and accessibility

A central theme in land-use planning is 'accessibility'. It is a concept that is not only mutually linked with spatial structures and traffic networks, but also with aspects of time, individual constraints and opportunities. Figure 3.2 shows these mutual relationships.



The bicycle is generally seen as a suitable means of transportation for short distances (<5 or 7.5 km). The optimum cycling distance is about 2.5 km, as shown in Figure 3.3. It is important to consider these short distances and the impact on travel demand. Land use planning focuses on houses, offices, shops and schools in each other's vicinity, and can easily enable the combination of activities such as residing, working, going to school and shopping without having to bridge too many kilometres.

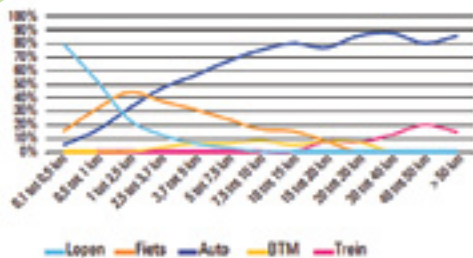


Figure 3.3

The importance of proximity of residential areas to work or further transit results can be witnessed by two cities in the Netherlands with different shares of cycling. Groningen has about 200,000 inhabitants and is very bicycle friendly. About 30% of all trips and 46% of trips up to 7.5km are taken by bicycle. One of the keys to Groningen's success is the fact that a lot of the residential areas are within 2.5km from important destinations including work and a strong transit hub. On the contrary, Parkstad Limburg, in the very south of the Netherlands, is a comparable region with a low level of cycling. The Parkstad Limburg region includes roughly 220,000 inhabitants, similar to Groningen, yet less than 10% of trips up to 7.5km are taken by bicycle. Most residential areas are not within 2.5km from working areas, and its transit hub, Heerlen station, is also outside this distance.

Stedenbaan, a cooperation of stakeholders in the agglomeration of Rotterdam - The Hague, also recognizes that a dense urban area combined with an important transit node is one of the keys to achieve high levels of cycling. The cooperation represents transport companies, local and regional governments, real estate owners and project developers and focuses on urban development strategies that make cycling and public transport more attractive. A priority for the region is that at least 80% of all new buildings should be constructed within existing urban areas and at least 40% of all new buildings should be concentrated in the direct vicinity of important public transport nodes.



3.3 Integrating cycling infrastructure into land-use planning before development

Any development is an opportunity to improve cycling infrastructure and safety. When a new residential development is being planned, local authorities should ensure that cycling is integrated well before permissions are granted as it can be difficult to delay progress once begun. Furthermore, in densely populated environments, every scheme affects cycling and it is important that engineers, planners and politicians are aware of this and that advocates have a voice.

One consideration to be made is parking. It is important that bicycle parking is being provided, and it is that bicycle parking is placed on both the origins and the destinations in the network. This approach is also most cost-effective.

Development boundary walls should also be checked to not block existing cycle routes or rights of way. A new bus, rail or tram system must not block an existing cycle route and once operational should provide access to cyclists.

An example of development overriding the needs of cyclists in London would be National Cycle Network Route 1, which runs through London along the side of the Thames. This route also forms part of the London Cycle Network, the Olympic Cycle Network and the EuroVelo project as part of a proposed route that runs between Moscow and Dublin. Despite its strategic importance, the route on the Greenwich Peninsula was closed in summer 2008 for development works. The once public path was converted to private only access to the new high quality residential development. In order to make the route usable for the Olympics, a new inland route had to be developed and the continuity of riding along the side of the Thames was lost.¹

Bus lane width is another opportunity for cycling. If bus lanes are 3m wide then cyclists have to take a primary road position and cannot pass or be passed. If lanes are 4.5m then buses and cyclists can pass each other within the lane with ease. Lane widths in between will cause a grey area where buses or cyclists will risk potential conflict, as they may be unsure as to whether passing manoeuvres are possible. Designing out this type of risk is a vital task. It should be noted however that the UK is one of the few countries where buses and cyclists are allowed to mix in specifically designed lanes. In most countries with a high modal share for cyclists, segregated facilities are provided. For climber cities however, bus lanes can work well for cyclists despite the risk of mixing large vehicles with vulnerable road users.

Additional possibilities include designing junction curb radii to accommodate vehicles moving at 30kph rather than 40kph, resulting in slower moving vehicles and safer manoeuvres for cyclists, adjusting signal timings on a wide uphill junction to enable cyclists to cross comfortably, or designing a new road so that cycle lanes can be installed without reducing motor vehicle lanes are also options in some cases. All of these measures may not seem like prime examples of cycling infrastructure but the principals of safe city cycling permeate them. Arresting the negative impacts of other transport schemes at the source is vitally important if cycling is to flourish. If cycling specific funding is spent constantly retrofitting then this should be seen as a failure to integrate and a waste of public funds.

In the UK several attempts have been made to come up with bicycle friendly highway engineering design standards. These include The London Cycling Design Standards (Transport for London, 2006) and Cycle Friendly Infrastructure Design (Department for Transport, 2008). The CROW manual from the Netherlands remains an outstanding document for cycle infrastructure design in Europe but it is important for countries to develop their own standards that reflect their existing situations and legal frameworks. The references at the end of this publication show links to where the British and London versions of the CROW standards can be found. Care must be taken to not dilute the Dutch standards to the detriment of cycling safety and the Dutch Vision of designing routes for the speed of commuter cyclists, crossings for the speed of elderly cyclists and visibility for child cyclists, is one that all designers in Europe should keep in mind. Another example of guidelines is the Irish National Cycling Manual, also available online (<http://www.cyclemanual.ie/manual/thebasics/>).

¹It should be noted that the London Borough of Greenwich in which the route severance described above occurred has been chosen by the Mayor of London as the site of a major cycling scheme, which will hopefully address the problems caused to cyclist.



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"According to me, a good cycling policy cannot be achieved without a reconciliation of all of those who are in charge of roads, public transport policies and parking (intermodality with bus, boats, P+R, trains, etc.), business travel plans, school, youth, etc."

"Cycling is the transport mode that is privileged for the trips between 1 and 3 kms (at least)."

Denis Leroy,
Vice-President of La Rochelle Urban Community, France



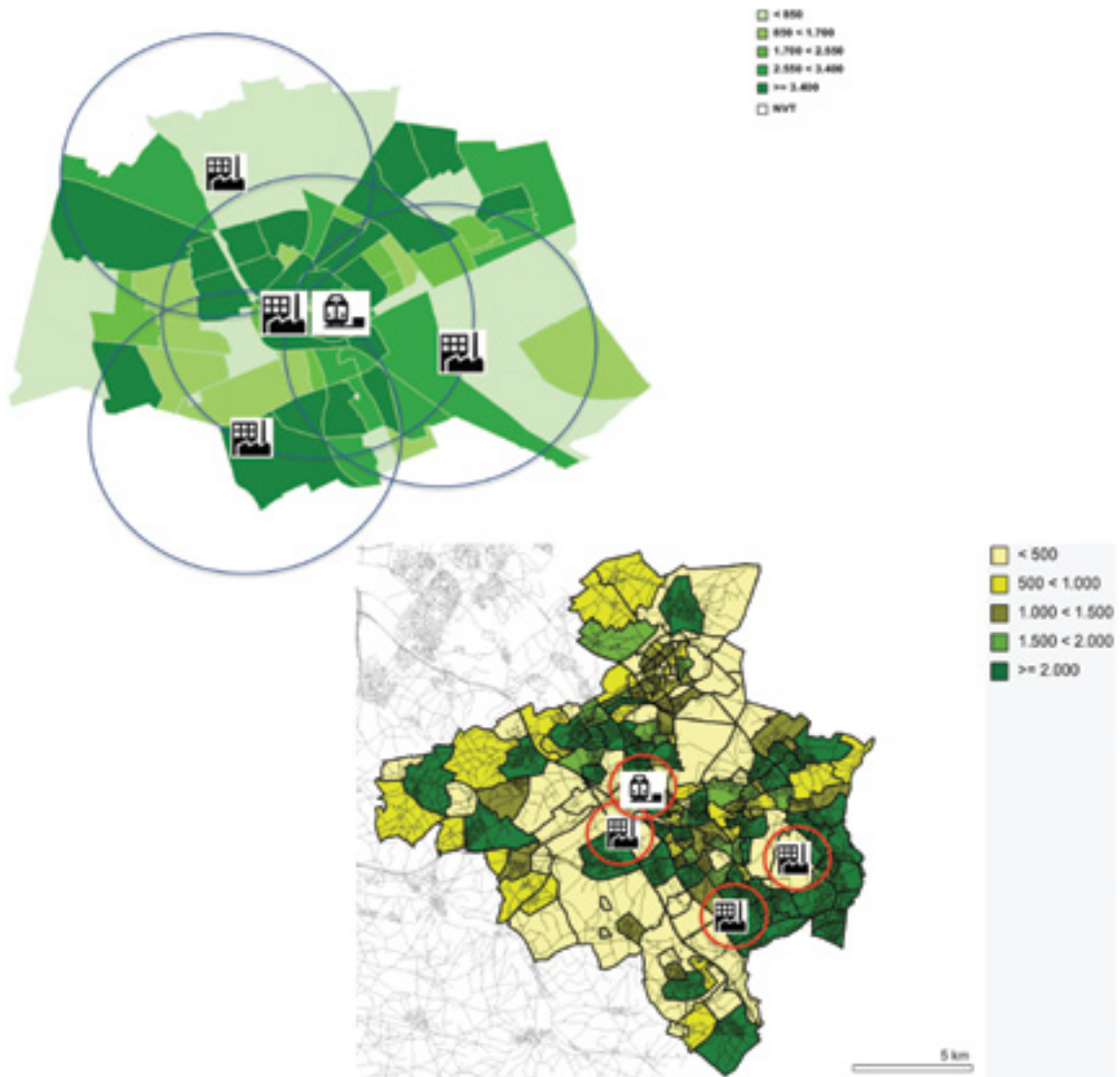
3.4 Well-planned cycling networks

The combination of compact land-use planning and a well-planned bicycle network is a crucial characteristic of bicycle friendly cities. The quality of a bicycle network is not only strengthened by directness of routes and good quality road surfaces but also by the bicycle facilities and services that are well connected to the network. Facilities and services that improve the experience of the user include cycle parking, waiting time predictors at traffic lights, green waves and useful signage.

If we look at the Netherlands with a high level of cycle use (about 900 km per person per year in 2008) compared to the level of several other European countries (mostly around 200 or 300 km per person per year in 2008) - we see that an intensification of investments in the cycling infrastructure took place from the 1970's and onwards, with a focus on local cycling networks.

"Cycling without dismounting" is the title of the bicycle plan of the city of Lelystad in the Netherlands. A good choice for this plan in which the bicycle network is an important instrument to facilitate and promote cycling. A bicycle network is a complete system of connections that provide access to cyclists' points of departure and destination. Five factors determine whether a network is proper and is likely to attract (new) cyclists. Firstly there is the factor of cohesion; all relevant attraction points should be included. Secondly the degree of directness plays a role. The more direct, the better. Safety is the third factor involving issues such as avoiding conflicts with crossing traffic, the separation of vehicle types and speed reduction. Attractiveness is the next factor, including the scenery, public safety and lighting. And lastly comfort has to be in place; preventing cyclists from heavy fumes and using the 'natural' routes that people follow.

As a result a bicycle network does not only consist of bicycle lanes and separated bicycle tracks. Cycle streets and 30km roads with low speed and mixed use as well as completely separated tracks that do not follow the arterial routes may also be part of the network. Figure 3.4 shows us the cycling network of Groningen. It links important origins and destinations and consists of separated cycle tracks along the corridors, combined with separated tracks. Within the residential area these tracks offer cyclists an advantage in directness (and time) compared to the network for the car. They form a direct connection with areas and activities nearby, whereas the car drivers have to take a detour to reach their destination.



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A recent development in the Netherlands, and also around Copenhagen, is to develop separate 'highways' for cyclists. There is a growing interest in cycling longer distances when facilities are provided. These 'highways' are being planned in between important centres at the regional level and often consist of completely separate cycle tracks. Target groups are not only sporty commuters who want to stay fit or avoid traffic jams, but also a growing group of users of e-bikes, bicycles with the assistance of a battery with speeds up to 25 km/hour.

In the UK, the best existing example of a fully segregated network of cycle tracks is ironically in one of its most car-dominated towns. Milton Keynes has over 200km of 3m wide segregated cycle tracks. However, no effort was made to regulate motor vehicle speeds on the carriageway because of the segregation. While not be a problem in link sections, cyclists are forced to give way to vehicles travelling at 100kph in junctions and crossings. The town is also quite spread out with long distance cycling required to reach shops. There are many lessons to be learned from Milton Keynes for urban planners and more information can be found in John Franklyn's twenty-year review of the town's cycling infrastructure (Franklyn, 1999). The main lesson learned is that if you design a city around car use, then even with the best cycling facilities available people will choose the car. In Dutch and Danish cities where car routes are more circuitous and difficult to navigate, cycle routes offer the optimum route selection choice and so it is clear to all which mode the city promotes.



3.5 Involving urban designers and architects

In order to maximise the benefit to cyclists an audit needs to be taken of any organisation or individual role that affects the urban environment and then a concerted effort made to help them understand the specific needs of cyclists. It is suggested that as well as encouraging planners and engineers that efforts are made to engage with urban designers or architects. A middle ground must be found between architectural form and highway engineering function, and in order to affect change, cycling issues need to be part of this middle ground. In the UK urban designers successfully fought back the need to clutter streets with an abundance of road traffic signs stipulating who has priority and exactly how they are expected to behave as a result. Urban designers have a better idea of an area's sense of character and purpose than an engineer attempting to build to legal highway standards and it is vital that chosen infrastructure for cyclists is sympathetic to its environment. Cycling is one of the greatest tools we have to improve the quality of life; physically, mentally and environmentally and these benefits should be made apparent to urban designers.

The main guidance documents for urban designers in the UK are the Manual for Streets, (MFS1, CIHT 2007) and Manual for Streets 2, (MFS2, CIHT, 2010). MFS1 looks at mainly residential streets and was influential in establishing British standards for home-zones following the Woonerf example from the Netherlands. MFS2 extends the guidance to urban and rural situations. MFS is very clear that when designing vehicle restricted areas, cyclist access should be allowed. Still, urban designers in the UK, particularly in their many pedestrian only town centres, often ignore this. MFS2 also contains guidance on suitable carriageway widths that promote sustainable transport. Roads on new developments are still being built in the UK at a width of 7.2 m, which equates to two running lanes of traffic at 3.6 m wide. This width is particularly dangerous for cyclists as it invites vehicles to pass when there is not sufficient space to do so. Lane widths of 3 m means that motor vehicles cannot pass and so motor vehicles are forced to move at a cyclist's speed. Wider lane widths mean that vehicles can pass whilst still giving clearance to cyclists. It could even mean that a cycle lane can be introduced. Most cycling nations in the EU recommend that vehicles give cyclists 1.5 m clearance when passing them and so it is clear that standard British carriageway widths do not allow for this. MFS gives a challenge to urban designers to include the needs of cyclists in their scheme but also gives engineers a challenge to make sure cycling facilities fit in with the overall sense of place and character of the area they inhabit.



"Planning for bikes - and for all modes of transportation - is smart urban planning."

Janette Sadik-Khan, Transportation Commissioner, New York



"At least planning and architectural departments, civil engineering or even industrial engineering must collaborate and work together if the city wants to achieve a common objective."

*Juan Carlo Aparicio,
Lord Mayor of the City of Burgos, Spain*

3.6 Traffic policies

In the broader scope of traffic policies, measures can be taken to make cycling faster, cheaper and more convenient than other modes. In many cities in the Netherlands, cars are restricted in certain central or residential areas. In some cases cars are forbidden to go onto a street either all day or during shopping hours. There are also cases where streets are one way for cars and two ways for cyclists (see Figure 3.5). Another instrument to give cyclists an advantage is to allow them to ride through red when taking a right turn or waiting time predictors (see Figure 3.6). Apart from these juridical measures to restrict cars, financial measures can further discourage car use. Parking regime is the most well-known financial measure and it can be combined with Park and Ride facilities at the edges cities. Park and Bike facilities can enable car drivers to travel the last mile not only by public transport, but also by bicycle.



An example of a city that has had a bicycle friendly traffic policy for many decades is Freiburg, a city in the western part of Germany with about 230,000 inhabitants. Since 1971, the historic centre has been pedestrianized and at the same time the first cycle network has been planned. The transportation strategy of Freiburg rests on the pillars 'traffic restraint', 'channeling of motor traffic' and 'parking space management'. Within 30 years the cycling rates in Freiburg increased: 15% in 1988 and 26% in 1999.

Bicycle traffic has also been an integral part of traffic policies for a long time in Münster, where a number of politicians and staff members are dedicated to keeping up the levels of cycling. The city has 280,000 inhabitants in the Northern part of Germany and is considered one of the best cycling cities of the country. About 40% of trips are done by bicycle. Spatial policies in Münster have been aimed at locating important economic and social functions within, or in the realm of, the city centre or along the arterial routes. In 2004 71% of the inhabitants lived within 6 km's of the city centre resulting in many bike-friendly trips.



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3.7 Conclusion

Cycling advocates believe in the benefits of cycling and its overwhelming positive effect on society particularly in terms of quality of life, and so this belief must be utilised to enthuse others. When cyclists are considered in all projects in the urban realm then cities begin to operate in the way cycling champion cities like Amsterdam and Copenhagen do.

Cycling becomes omnipresent to the point where it seems to be hardly mentioned. Hard work and campaigning got these cities to this point and so it is hoped that this chapter has helped to distil the actions needed by cities working to reach this point. The shared vision for cycling must be to make each city's societal system transform and adapt to the needs of cycling at all levels and throughout all professions. This journey has key stages and they are all attainable with planning, focus and commitment.

Cities and towns that aim to become bicycle friendly can use instruments on different scales of planning. On a higher scale the aim for compact land use planning is a strong instrument, as well as the definition of an overall vision for the city that explicitly includes the bicycle as one of the tools to become a liveable, or CO2 neutral city. On a lower level the definition of a coherent, safe and attractive bicycle network is crucial. Also traffic policies that prioritize cyclists instead of car users and specific facilities and services for cyclists make it attractive to actually use the bicycle network. Ideally, policies and plans at different scales are coherent and consistent.

Advocates need to find a voice and change the planning cycle in order to move away from retrofitting and towards integration.



CHECKLIST

for Land Use Planning Applications:

- ▶ Can secure, accessible and covered cycle parking be provided?
- ▶ Can the development be Car Free or can the number of spaces per property be minimised?
- ▶ Can rights of way be improved or will any existing routes be severed?
- ▶ Can the impact of freight/deliveries be mitigated?
- ▶ Are cycle routes prioritised above car routes?

CHECKLIST

for Transport Planners:

- ▶ Does the scheme address the needs of young, elderly and commuter cyclists?
- ▶ Are cyclists disadvantaged or marginalised and have efforts been made to mitigate this?
- ▶ Have efforts been made to reduce the speed and volume of traffic?
- ▶ Are cycling facilities designed to current best practice standards?
- ▶ What level of service does the route provide for cyclists?

CHECKLIST

for Urban Designers and Architects:

- ▶ Does the project promote cycle use?
- ▶ Does the project make cycling the easiest and most convenient option?
- ▶ Has space been allocated for the sole use of cyclists?
- ▶ Are public places designed for cyclists?
- ▶ Have cycling design speeds and characteristics been considered?

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CHAPTER 4. AN EMPOWERED DELIVERY TEAM:

A shared planning vision supplemented by a delivery team possessing strong appreciation for cycling as well as specific expertise and adequate manpower is a recipe for success for many cities. It is important to entrust cycling programmes to delivery teams possessing skills and staff commensurate to the task. This is often not the case. Many European cities do not have cycling departments, while others rely on improbable or miniature units that inevitably become mere symbolic set-ups. Experiences in this chapter are shared primarily from Brussels, and also Copenhagen.

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SKILLS, MOTIVATION AND MANPOWER

4.1 Delivery team skills and motivation

The skills and motivation of the delivery team directly influence the successful execution of a cycling vision. Having a dedicated part of your organisation dedicated to cycling from the beginning can help, as witnessed in Vienna (see Chapter 1). All of the necessary competencies should be incorporated and appreciated at each level of the organisation. These include architects, traffic planners, street designers, traffic safety officials, and road maintenance teams. Once in place the good craftsmanship will be apparent - and sometimes yield quite surprising positive results.

Highly skilled architects and designers can make a big difference both to the short and long term acceptance and use and should not be underestimated. A proper design is user-friendly and communicates a sense of importance and appreciation of the user. A poor design will probably not last for long - and will have a hard time receiving positive attention.

INSERT PHOTOS ON AESTHETICS, EXAMPLES FROM NIELS

The delivery team should be equipped with the power to make necessary changes to professional culture. Innovative results will come from the delivery team within the organization.

In Copenhagen, the ability to remove snow effectively on cycle tracks, or the good design of the footrest in front of traffic lights, was not developed by engineers or managers. Those user-centric results originated from members of the staff that embraced the idea of the cycling city in their daily work routines. To stimulate these effects it is recommended to train selected key members of the staff, to value innovative ideas and to carefully consider recruitment of new staff members that are ready to take the challenge.

A highly capable administration will also have positive relations with elected politicians in power. It will benefit from a proper dialogue with other city representatives - and probably most importantly, it will facilitate on-going communication with citizens.



4.2 Including support of stakeholders and grass roots organisations

Including stakeholders and grass roots organisations on your delivery team is advantageous, especially when manpower or political support is limited.

Political support for cycling was low in Brussels in the beginning, especially on the municipal level. The creation of Pro Velo, in 1992, was a first step in empowering the few cyclists that were left. Continuous public funding for advocacy groups since the nineties led to numerous promotional activities such as Dring Dring, the annual bike fest, cycle to work and to school activities, and a development of cycling know-how with users themselves. With the help of these efforts, public opinion shifted, and a general consensus was created that cyclists had a right to the city. The same organisation developed an education programme in schools that helped reverse a situation in which parents were no longer teaching their children how to cycle.

Brussels cycling NGO's have been invited to a regional bicycle commission since 1998, to help improve the quality of new road designs. With no initial political support, a small budget, and almost no staff for cycling at the public administration, funding NGO's was the best bet for Brussels.

The role of local stakeholders and grass roots organizations is further discussed in Chapter 5.



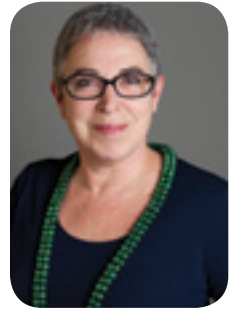
"Working on behaviour changes implies that the bike should not remain a specialist's business but that all stakeholders in the city should act at their level to promote cycling in the various projects. The challenge in terms of driving change is therefore important internally for Nantes Métropole: all operational departments should include the issue of cycling development in their discussions."

Jacques Garreau, Vice President of the Greater Nantes

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"In a good situation, you should not need a special cycle team - if everyone thinks bike, it's not necessary. However, the real challenge is not the city workers, but often is the politicians who must have the courage to support bikes. We need the courage to invest in bicycles' in the broadest sense; 'The bicycle is the new car'."

Jeanine van Pinxteren, Chair of the executive committee of the city-centre borough of the city of Amsterdam



4.3 Integrating cycling with city planning

Integrating cycling with city planning and across transport fields speeds delivery progress.

In Brussels, the first bicycle route network was accepted in the 1995 Regional Development Plan, and implementation started three years later. Progress was slow, and it was not until a segregated cycle lane was built on the city's main thoroughfare, rue de la Loi (2003), that things really took off. Until then the delivery team consisted of one to three people. As political support grew, cycling became part of the city's strategic goals. Changes in traffic laws resulted and further helped the development of the network. The contraflow law was adopted in 2004, stating that all one-way streets should be open to cyclists riding contraflow. To help non-cycling colleagues and other planners in the Region to improve their designs, manuals were written on contraflow cycling, bicycles and public transport, roundabouts, and more.



A closer look at cycling evolution in Brussels

The first bicycle plan was adopted in Brussels in 2005, along with the appointment of a 'bicycle manager' to implement it. The plan centred on the four E's of Engineering, Education, Encouragement and Enforcement and was the first complete bicycle policy document for the Brussels Region. By 2009, 65 km of extra infrastructure was built, all crossings with traffic lights got bike boxes (see Figure 4.2), 90% of one-way streets became contraflow streets, and the share bike traffic rose from 1% to 4%. Bicycle staff also grew from three to eleven people, and political support further increased.

2009 saw the launch of Villo, the Brussels public bike system. Although the hilly nature of the city is not really in favour of a well-functioning public bike system, Villo became an instant success, with a total of 5 000 bicycles in 360 stations by the end of 2012.

The Velo-city conference in 2009 was the crowning achievement of the first bicycle plan. More than 800 participants from around the globe joined the conference.

A new bicycle plan was written in 2011, containing a clear message that the quality of bicycle infrastructure has to be 100% on all streets in order to reach the goal of 20% modal share in 2020. At the core of the new bicycle plan was the doubling of the annual infrastructure budget, from five or six million Euros to eleven million a year, in order to complete work on the 19 Regional routes and build solid infrastructure on major roads. New signage was also part of this plan, as seen in Figure 4.3.



4.4 Balancing hard and soft measures

A lot of cities face the chicken and egg discussion : how can we get people to cycle if there's no infrastructure, and how can we build infrastructure if there's no cyclists to use them?

A motivated and capable staff can help make the right choices for a city when it comes to balancing hard and soft measures in a cycling programme. It is clear that a main road cycle network will speed up the increase of cycling. Once a cycle lane was built on rue de la Loi in Brussels, numbers went from 60 cyclists an hour on the parallel route, to 500 on the main road. Still, a segregated infrastructure model can be a non-starter in a beginner city. It probably takes 30 to 40 years to build a Copenhagen-style network, which can be demotivating for planners, politicians and cyclists alike. That's why Brussels has first developed the cycle network on local streets, parallel to main roads. Other areas to consider as early targets are dangerous points or the pinch points which dissuade cyclists.

Some other softer measures that were effective in Brussels include distribution of over 1000 maps each month, painting cycle lanes (and decreasing car capacity), and signposting. The bicycle maps detail all existent and proposed infrastructure, as shown in Figure 4.4. The basic idea is that you have to reserve space for cycling whenever you can.

Chapter 9 discusses this balance between hard and soft measures.



4.5 Conclusions

This chapter discusses some of the key areas of influence of the cycling delivery team, and the importance of skill, motivation, public and user involvement, integration, and informed choice making. These skills are important throughout various transport fields including planning and design.

The examples presented from Brussels are particularly relevant for any city that faces similar challenges they faced: car dominance in land use, limited local political support and a slow change in attitudes. Brussels would be a strong case to prove that even the most difficult places can change their mobility paradigm, even with a small initial delivery team.

Key messages for administration

- ▶ The dedication to cycling issues must be present and energetic on the highest management level.
- ▶ The ability to conduct changes is crucial.
- ▶ Credible documentation and preparedness is key.
- ▶ Power of execution will make sure that initiatives do not stay on paper.
- ▶ The skills and competence of the administration must be in place.

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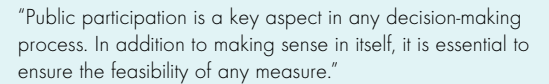
CHAPTER 5. SUPPORT AND ENGAGEMENT OF LOCAL STAKEHOLDERS:

Cycling infrastructure is increasingly becoming a grassroots demand. This demand tends to become more vocal when there is weaker political support. Environmentalists, neighbourhood councils and cyclist associations can represent a competent and strong counterpart to planning departments in charge of urban mobility. It is critical to tap into these highly motivated groups early in the planning cycle to stimulate the generation of ideas, understand mutual needs, and increase the ownership of the final decision. Whether at the level of consultation or at deeper degrees of involvement, the responsible local authority must ensure all players know that once the participation process is over, the final word stays with the authority. Lessons from Budapest and Dublin are highlighted.

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Idoia Garmendia, Deputy Mayor of Vitoria-Gasteiz

STRENGTHS AND BOUNDARIES OF SHARED DECISION MAKING

5.1 The Power of a Critical Mass

The role that a critical mass of citizens can play, both in creating a demand for cycling initiatives, and in reaching solutions that are widely applicable, is indispensable. Examples in this section highlight the power that voluntary organized activity can have in turning over a car dominated city.

The Dutch, who currently enjoy a very advanced cycling culture, have not always been bicycle friendly. In the 1960's and 1970's, Dutch politicians were pleased to see more and wider roads in their cities and even wider highways around them. They spent considerable money to provide more space for car traffic and considered cycling old-fashioned. However when serious side effects and casualties of motorised traffic rose in Amsterdam, the citizens felt unsafe and unprotected on the roads. As they realised the power of their community they started to organise protests against car dominance and air pollution. A Cyclists' Union was set up and empowered to start a proactive cooperation with politicians and authorities. While the cooperation was not without friction, it enabled many political changes. Figure 5.1 illustrates the attitudes around that time.

Something similar happened in Budapest some years later. A small group of cycling activists from three NGO's organised the first "Critical Mass Budapest" on the international car-free day in September 2004. At that time, the modal share of cycling in Budapest was below 1% and the activists argued for improved cycling infrastructure and facilities. Without a massive budget but with creative stencils, stickers and hundreds of volunteers, the organisers attracted 4,000 people for a rally on the most significant streets of Budapest. Since then, that rally has been organised twice a year and evolved from an underground protest to a bike holiday reaching 50,000 attendees in 2008. The movement gained great visibility in the national newspapers and TV stations. In the special case of Budapest the challenge was not only to convince the municipal and national officers and politicians on all sides, but to promote cycling for citizens without the existence of a quality cycling-friendly infrastructure. Between 2004 and 2012, Budapest's cycling share grew from below 1% to 4-5%.

Organised voluntary activity also challenged the car dominated culture in Ireland in the late 1970's. At that time, Voluntary Service International (VSI) published Give Way to Bikes - A Report on Cycling in Dublin (1979) followed by protests in the early 1980's against inner urban road schemes. That report paved the way for the formation of the Cyclists' Action Group in Dublin, Cycle Folk, and, further down the line, the creation of the Dublin Cycling Campaign in 1993. See Figure 5.2. In the years that followed, cycling campaign groups or associations emerged in other Irish cities such as Galway and Cork followed by smaller groups in Waterford, Dundalk, Maynooth, Skerries, Sligo, Limerick, Westport (Co. Mayo), Malahide and Naas. An umbrella body, Cyclist.ie (www.cyclist.ie), was formed in 2009 to lobby at a national level and an 'all island' level. This organisation is advancing the work that has been carried out by the larger city associations and is helping local groups to become established. Cyclist.ie, now the Irish member of the European Cyclists' Federation (ECF) enables national authorities to deal with one single umbrella body representing transportation cyclists' interests rather than several separate organisations, which can be an effective strategy. See Figure 5.3.



The Network of
Cycling Campaigns
in Ireland

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5.2 Generating ideas, solutions and plans

In addition to instigating change or challenging existing culture, NGO's and local stakeholders encompass a wealth of knowledge and can assist in generating ideas, solutions, and plans.

At a policy formation level, local cycling associations can be an extensive source of ideas and initiatives. Many of the demands of grassroots organisations in Ireland have been or are being adopted as public policy with the publication of the National Cycle Policy Framework (NCPF) (Department of Transport 2009). See Figure 5.4. These demands include the urgent need to reduce urban speeds, to improve driver behaviour in the vicinity of cyclists (e.g. with calls for a minimum passing distance and a much enhanced training curriculum for Approved Driving Instructors) and, more generally to move away from the "windscreen view" of the roads and road safety held by many transport policy makers and practitioners. Credit in this case is also due to enlightened officials working at a senior level in the Transport ministry as well as the politicians themselves. The campaigners' challenge now is to confront the approach to road design and traffic management in which the main thrust is still perceived to be the efficient movement of motor vehicles above everything else and to ensure the implementation of progressive policies such as the NCPF.

In many countries expert knowledge on good cycling promotion is still being formed. Decision-makers can benefit from the ideas and knowledge that cyclist advocates have accumulated both locally and from other cities. NGO's can build online databases about cycling and mobility, including links, articles, books, videos, funds, questionnaires, and more, which can save the administration time and energy.



Ireland's First National Cycle Policy Framework



smartertravel >>>

Local stakeholders also have broad everyday local experiences. Residents and local shop owners know best where the local danger points are. Asking them to contribute to mapping the conflict points of the neighbourhood, conducting surveys, and organising public discussions can be beneficial. Their involvement also helps improve social inclusion in policy formation, which is good for people and politicians.

In Budapest, a public forum was set up first by NGO's in order to discuss the public opinion and to announce a bicycle working group. The bicycle working group pulled together members from numerous local NGO's, experienced and motivated planners, traffic engineers, psychologists, and communication experts to prepare a proposal for a national cycling policy adjusted to the 2007-2013 EC financial period. 'Five ministries and a dozen NGO's were involved in the first meetings and nothing could have been worse than a conflict between NGO's when presenting their ideas to the new government. Some trade-offs had to be made between utility, recreational and pro cycling demands but a good draft of cycling policy has been accepted', said Adam Bodor, who became the first national cycling coordinator commissioned by the prime minister between 2006-2010.

Based on best practices, the Cycling Hungary Programme 2007-2013 took shape in order to increase bike commuting, develop bike tourism, decrease bike accidents and develop pro cycling facilities. The learning process for the authorities and NGO's, such as the Hungarian Cyclists' Club (HCC), lasted for about two years and was supported by many international projects funded by the European Commission (e.g. CARMA - Cycling Awareness Raising and Marketing, Active Access, LifeCycle, Volunteers Of Cycling Academy). While neither standard nor required by law, transportation officers created a Road Design Guideline integrating cycling as an equal participant, which is believed by local stakeholders to be one of their most important achievements. Adherence to the guideline is required when applying for co-funding from the European Commission and extra points (5% of total) are awarded if a cycling NGO supports the proposed plan. This has facilitated the accessibility of development plans and transparency in general. While there was disagreement on some topics, such as turning right at red lights, the depth of the NGO's involvement in the brainstorming stage was unprecedented, and ideas were presented by both the opinion leaders of cycling subcultures and young planners.

In Europe, cycling associations, or their umbrella bodies such as the ECF, can also shape policy and raise awareness of cycling through structured engagement with the many institutions operating at the European or global level such as the OECD, UN, WHO.

Cycling on the Inner Ring Road, Budapest (one direction)



5.3 Broadening community awareness

Besides the engineering and legal issues of cycling schemes, local stakeholders and NGO's can play the key role when it comes to marketing and communication, which is an essential component of a successful programme.

For example, the HCC is the most significant Hungarian organisation related to cycling campaigns. The 'Bike to Work!' cycling challenge was first announced by the Ministry of Transportation in 2006 as a pilot project. Following its first year as a pilot, it has been coordinated by the HCC involving approximately 10,000 cyclists into the campaign twice a year. The campaign was co-funded by the LifeCycles project which provides a great tutorial on their website on how cycling campaigns should be implemented. By now, 'Bike to Work' has become the best known cycling brand in Hungary.

While businesses and the media can be strong allies, they do not always react positively to cycling initiatives. One topic that can receive significant public attention is the debate over the reduction of speed limits in city centres in order to create calmer streets for socialising and shopping and make the city less threatening to cyclists and pedestrians. Such an initiative was advanced in 2009 in Dublin with strong leadership by an elected politician from the city, Councillor Andrew Montague. However €21 M was spent on car advertising in Ireland in 2010 (Nielsen Advertising Intelligence Services, 2011). The media's pro-car (and even misinformed) reaction led some City Councillors to sway in their positions, and a proposal to scrap or shrink the 30 km/h zone under trial was created. In response, the local cycling association, Dublin Cycling Campaign, led a well-researched and organised campaign to retain the 30 km/h zone by bringing together a diverse array of civil society groups. The myths were busted, the benefits were explained, and the elected members were persuaded to retain the calmer and safer 30 km/h zone, with only a minor subsequent change to the zone eventually adopted. The cycling association thus helped the City Council to advance policies which would otherwise have been discarded or diluted. Equivalent campaigns are on-going in many countries with the UK's "20's Plenty for Us" campaign providing a good example of advocacy groups being a strong counterpart at local government level. And, in Graz, Austria, shop-keepers initially fought speed-reduction measures, but were later won over with strong evidence that shoppers also come by foot, bus, tram and bike.



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NGO's can help reach tens of thousands of people by newsletters, online and social media; they can be the city's ears and mouth in some ways, ideal partners for cycling campaigns. There are also certain international trainings, conferences, funds and projects in which NGO's can participate as partners, organisers or even legal representatives of the city. NGO's and local stakeholders can also facilitate festivals and fun events which are an effective way to connect with a wider audience who may not normally be traditional cycling advocates. In Ireland, example cycling festivals include the Cork Cycling Festival (Figure 5.6) and the Kerry Bicycle Festival (Figure 5.7).

The cyclists user group in London (LCC) organised a big cycle ride following the 1981 regional elections. A demand was made at County Hall to the new leader of the regional council to adopt three cycling measures - he agreed to them immediately and there followed five years of innovative pro-cycling policies in London.

More recently, in 2006 before the national elections in Hungary, cycling NGO's organised a bike rally named 'Tour de Votes' between the national parties' election centres in order to raise awareness of active transportation. Approximately a thousand voters delivered the Cyclists' Petition expressing the need for a long term cycling policy to provide a continuous network, a review and update of the National Highway Code, accurate data on non-motorised traffic modes, radical traffic calming in residential areas and in downtowns, bike parking facilities and the integration of cycling into the existing public transport system. The Cycling Coordination Office started shortly after the elections and involved all authorities from the Parliament to the Traffic Safety Committee.



5.4 Forming effective relationships between NGO's and governmental authorities

Transparency, clarity and consistency are all aspects of effective partnerships between local stakeholders and governmental authorities.

Transparency is critical in establishing good relations and trust. In order to talk about facts, there must be accurate data on cycling and about road accidents. It was a huge barrier for organisers in Budapest that the availability of the plans and early-phase concepts depended on the relationship between the planners, authorities and the municipality officers. Ideas should be discussed and documents should be shared with the public as soon as possible. The more errors in the plans and the later their correction, the less they are accepted and the more it costs for everyone.

Also, all participants must understand clearly the nature of their participation and the agreed junctures of the process at which it takes place. For example, it needs to be clear that in the development of a project, activists can provide input at (1) the early or conceptual stage of a project; (2) the preliminary design stage; and (3) the detailed design stage, but not repeatedly over subsequent points. The danger is that there is so much consultation on the minutia of schemes that progress is slowed substantially. The cyclists perspective is one of perhaps many inputs cities get. The elected authority has the responsibility to balance differing demands and interests in the best interests of all (or as many as possible) and needs to take charge to advance schemes.

There is also the difficulty of dealing with several spokespersons or representatives from a group, arising from the fact that much advocacy work is done on a voluntary basis and it is difficult for volunteers in other full time jobs to attend day-time meetings with authorities. Each representative needs to be aware of what the other one has argued. While this is really a challenge for the advocacy organisation, it does require more understanding from the authority. In practical terms, this might mean ensuring that meeting agendas and supporting documents are circulated well in advance to enable often over-stretched volunteers to provide considered input on various policies, plans and projects. Many user-groups establish a working group or committee to liaise with the city to avoid these problems. This was the case in London from 1981 to 1986.

Consistency of opinions is also key. Once an agreement is made then those concerned must stick to it. There are typical conflicts such as whether traffic calming, bike lanes or separated bike paths are the best investments for a certain neighbourhood. The main point must be that cyclists shall be accommodated on the streets somehow in a safe and attractive way.

While the work of stakeholder engagement ought to be largely complete once agreed policies are in place, experience suggests that the cycling associations need to remain involved so as to monitor what (if any) progress is taking place and provide input even at advanced stages of projects so as to help ensure that cyclists' needs are met. In this context a site visit to a new cycle or traffic scheme can be very helpful and ideas can come once people can see the site and its issues. At a very practical collaborative level, interaction between cycling associations and government bodies can inform and enhance initiatives to promote cycling such as National Bike Week events in Ireland (see www.bikeweek.ie for the Irish events) and the creation of campaigns to tackle bike theft. Another example is the "Avoid the Thief" video produced collaboratively by the municipality, the local police and the local cycling association in Dublin.



5.5 Conclusion

In summary, engagement between stakeholders and the municipality is a continual process spanning the many stages of the development and implementation of concepts and initiatives. It is critical to tap into these highly motivated groups early in the planning cycle in order to stimulate the generation of ideas, nurture the mutual understanding of needs, and increase the ownership of the final decision. Collaboratively and collectively, this cooperation can advance the creation of a strong cycling culture in European cities.

In some cities the initiative for pro-cycling has come from cyclists, but it has also come from politicians and officials too. What is useful is that there is a dialogue with users while recognising that the city also needs to reach out to people not currently using cycles. In the end, good cooperation with user-groups can lead to better policies that will have a greater chance of success and a better value for the investments.

"Get the media interested in what you are doing for cycling in the city and let them tell the story - this worked really well in Odense."

Mr. Steen Møller
Mayor for Culture and Urban Planning, Odense



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CHAPTER 6. A SUPPORTIVE INSTITUTIONAL COALITION:

Institutional fragmentation and competition in large urban contexts can lead to ineffectiveness, dysfunction, and provision overlaps or lapses. Hence there is a great necessity to have planning departments that share common cycling values and funding priorities. Gaining such unity and support does not come easy. It requires continued effort, sensibility, and determination from the officials of cycling departments or proponents of a cycling programme. Amsterdam teaches us this lesson.



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6.1 Roles and responsibilities during the lifecycle of a cycling policy

Every policy process goes through various phases: planning, preparation, decision-making, implementation, evaluation and adjustment. Various parties play a role in each of the phases, each with their own expertise and vision on the objectives and appropriate approach. The complex division of responsibilities and powers does not automatically result in synergy, and cooperation is necessary to yield positive results.

Urban designers and traffic engineers are key players in the policy-making process. However, they often have contradictory views on the design of public spaces. While urban designers tend to think in terms of the aesthetics of public spaces, traffic engineers are more focused on the functional design. Contractors play a major role in the implementation phase, while other parties and fields of expertise are involved in the adjustment or maintenance phase. Each transition to a new phase brings the risk of deviations from the original plan. It is important that attention is given to feasibility in the preparatory phase and that the underlying aims of the planning phase are not lost during the implementation phase.

As plans become more concrete, they also become more detailed, and the details make a large impact on cyclists. Details such as location of signage and cycle parking may be considered, but others can often be unintentionally neglected. For example, cyclists feel every tiny bump in the road, because unlike cars, bicycles have no suspension. Road builders may need to be alerted to this fact. Cyclists are also greatly affected by the maintenance of infrastructure, where continued coordination can yield positive results. Detours are sign-posted for cars and public transport, and though the municipality may make agreements with the contractor on alternative bicycle routes, this sometimes amounts to no more than a sign indicating that cyclists should walk their bikes from this point, after which they are left to seek out a suitable detour themselves. Another example is ice control. Snow is pushed off the road as fast as possible for vehicle traffic, but the result is that the bicycle lanes on the side of the road can become impassable.



Key facts and figures on Amsterdam:

- 800,000 inhabitants; 2.2 million people live in the Amsterdam metropolitan region
- 500,000 jobs
- surface area of 219 km², of which one quarter is water
- compact city with the majority of services located within cycling distance
- cycling culture: bicycles are a daily means of transport for going to work, school and shopping, entertainment areas etc.
- 800,000 bicycles
- 500 km of bicycle paths
- 50% of all journeys take place by bike



EXAMPLE:

ORGANIZATION MODEL OF AMSTERDAM'S BICYCLE POLICY

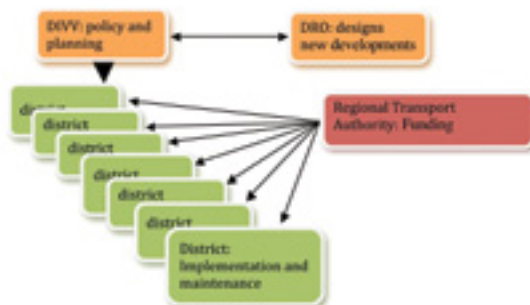
The organizational model of Amsterdam's bicycle policy is fairly complex, as shown in Figure 6.3. The central city, seven city districts and a regional transport authority each have their own responsibilities and powers.

BUILDING SYNERGIES WITH RELEVANT AUTHORITIES

The central city formulates the bicycle policy as a fully-fledged component of its general traffic and transport policy. The 'Long-term Bicycle Policy Plan' was introduced in the mid-1980's. This plan describes the policy objectives for the coming four or five years, along with the key projects that are intended to stimulate bicycle use in the city. The municipal Department of Traffic, Transport and Infrastructure (DIVV) is responsible for this plan. The policy is formulated in collaboration with the seven city districts.

The districts themselves are mainly responsible for implementing the bicycle policy. As with the central city, the bicycle policy is also part of the wider mobility policies of the city districts. The central city has officials dedicated to the specific task of developing and planning bicycle policy. Most of the city districts have placed the implementation of the bicycle policy under the control of one of their regular transport officials.

When new spatial plans are considered, the Department of Physical Planning (DRO) or its implementing bodies have primary responsibility for considering the interests of cyclists in the total design. The DIVV's role here is that of advisor and assessor.



Plans and designs for the construction and development (or redevelopment) of roads are assessed by municipal transport committees. They assess the plans for traffic safety, among others.

Because of the vulnerability of cyclists, the transport committees pay particular attention to bicycle safety. Transport committee recommendations often result in modifications that benefit bicycle traffic. The city's political elements place great importance in municipal traffic safety.

The bicycle policy is financed from the municipal budget and with funds from the Regional Transport Authority. The latter body distributes funding among 16 municipalities, of which Amsterdam is by far the largest. A small group of transport authority officials is responsible for bicycle policy. A huge chunk of the available funding (90%) and the majority of the Regional Transport Authority's available manpower are devoted to urban and regional public transport.

"It's very important that experts from different disciplines work together and cooperate in promoting cycling. Our experts on transport work closely with experts on land use planning, environment, health, education and the police."

*Hans-Peter Wessels,
State Councillor of the Canton of Basel-Stadt, Switzerland*

"The objective is to make the city more compact and to bring together various functions thus favouring short trips easily made on foot and by bicycle: the 'short distance city'."

*Jacques Garreau,
Vice President of the Greater Nantes*

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"I'm particularly proud that cycling takes a very important place on Gdansk's political agenda. Investing in more sustainable transport planning, expanding high quality cycling networks and safe routes to everyday destinations is a result-orientated strategy that pays back with a healthy, wealthy, clean and modern city, where people like to live. Thanks to the projects like Mimosa we are able to go further, to introduce travel behavior change programs that encourage people to walk and cycle. There is still a lot to be done of course, but we are definitely on the right path."

Maciej Lisicki, Deputy Mayor of Gdansk



6.2 Shared vision, early partnership and cooperation

In light of the potentially complex role and division of responsibilities of a great many parties during various policy phases, it is important that parties have a shared vision and start cooperating at an early stage.

In Amsterdam, there are plenty of examples of successful cooperation that are visible throughout the city. The municipal bicycle network now includes over 500 km of dedicated bicycle paths. When new housing developments are built, dedicated bicycle paths adjacent to busy roads are a standard feature. During recent years the municipality has placed tens of thousands of extra bicycle stands in public spaces, now numbering more than 250,000.

An important factor in successful projects is a joint vision on the importance of cycling for the area concerned. Preferably, this vision will be shared not only by the municipal officials concerned, but more importantly by the municipal and political decision-makers.

In Amsterdam the joint vision arose in the 1970's as the result of four factors:

- Resistance amongst Amsterdam's inhabitants to major changes in the old historic city for the benefit of the strongly growing car traffic at the expense of their homes;
- Preservation of the cultural-historic value of the monumental city;
- Emergence of the environmental movement which promoted the use of the bicycle instead of the car;
- A new generation of young politicians in the city council laid the basis for a new traffic and transport policy which aimed at making and keeping the city accessible, liveable, traffic safe and healthy. Cycling and using public transport were stimulated; driving a car was no longer encouraged. This policy is still in force.



"The real challenge in cities is defining how we want to use space - that is the key."

Jeanine van Pinxteren, Chair of the executive committee of the city-centre borough of the city of Amsterdam

In Amsterdam a change in thinking about the role of the bicycle in urban traffic resulted in a joint vision. In Paris, a strike of the public transport many years ago led to the discovery of the bicycle as an very useful means of transport. Other examples of the policies of bicycle friendly cities can be found in the Dutch publication 'Bicycle policies of the European principals: continuous and integral' (2009).

A shared vision and cooperation also helps secure funding. Although bicycle facilities are relatively very cheap to build, funding is still critical, and in the case of major projects, the funds almost always have to be obtained from various sources. At the same time, each party has its own system of prioritization. If all parties adhere stringently to their own procedures then it is more difficult or even impossible to get things done.

Sadly, there are examples of unsuccessful projects in Amsterdam too. Unsatisfactory designs often result when the Spatial Design and Traffic Planning departments fail to begin collaboration sufficiently early in the project. Where cooperation is what is required, parties often suffice with merely harmonizing their activities. Examples are bridges that look attractive enough, but are unsuited for cyclists because they are too steep, have the wrong surfacing or are exposed to the wind.

Sometimes, bicycle paths are well planned in a particular spatial design, but are too narrow or are constructed of the wrong materials (for example paving stones instead of asphalt) and so are uncomfortable for cyclists. Additionally, some urban designers choose the colour of bicycle paths and lanes for aesthetic quality over effectiveness.

A clearly visible distinction between the materials and elevation of bicycle and those of foot paths is sometimes rejected for aesthetic reasons, while these distinctions are what allow cyclists and pedestrians to move separately, freely and safely and without hindering each other.

The placement of bicycle stands in public spaces is sometimes hindered by aesthetic objections, resulting in chaotic bicycle parking. However, underground bicycle parks often fail to meet the needs of cyclists who only wish to park their bikes briefly. The result is sometimes an expensive but half-empty bicycle cellar. Moreover underground bicycle parks are often provided with much too steep steps or ramps.

One problem that has decreased considerably in Amsterdam has to do with the tendency to underestimate the importance of the bicycle in urban traffic. There is still a risk that the role of the bicycle will be considered too late in the processes of fund allocation, prioritization and area vision forming. The spatial dimension occupied by the bicycle relative to cars and public transport is still very small, despite the fact that Amsterdam has by now experienced its first bicycle traffic jams. An important factor in the spatial experience is the fact that the infrastructure for bicycles is less massive and spectacular than that for motorized vehicles. The opening of a new bicycle path is less likely to make the news than the opening of a new motorway or public transport route.

Of major importance is the fact that expertise in the field of bicycle transport is fairly new and limited amongst transport engineers. The bicycle has only really started getting attention in the traffic planning and traffic engineering study programmes in recent years, and due to fragmentation of the engineers' work, there remains little concentration of expertise on this subject.





6.3 Conclusion

Many stakeholders are involved in the development of bicycle policy. Urban designers and traffic engineers are key players. In light of the complex role and division of responsibilities of a great many parties inside and outside the municipality, during various policy phases, it is important that parties start cooperating at an early stage, adopt a joint vision, and share expertise in the field of bicycle transport. Below are recommendations to foster an effective culture of cooperation and to avoid pitfalls in order to maximize chances of bicycle policy success.

- ▶ **Get officials and politicians on their bikes.**

As already mentioned in Chapter 1, getting officials and politicians to travel by bicycle and experience cycling in the city is an ingredient for success. This will give them a better idea of where bicycle policy needs to be improved. The strong increase in bicycle use has placed the subject much higher on the agenda of Amsterdam's politicians and policy-makers, and the media and public are also much more aware of the topic now.

- ▶ **Share statistics showing the importance of bicycle traffic.**

Hard figures that demonstrate the advantages of bicycle transport can be of particular use in cities where cycling is not yet very popular and contribute to the bicycle being taken seriously as a means of transport. The current and potential performance of the bicycle in urban transport and the social benefits and costs of cycling can be demonstrated and compared to other modes of transport such as public transport, which is unjustly still often seen as the most sustainable form of urban transport.

- ▶ **Embed bicycle policy in all planning phases.**

To ensure that the bicycle becomes embedded in all phases of policymaking and planning, the bicycle needs to be given permanent and systematic attention, not only by the traffic engineers, but also by urban planners, public space, school, and housing designers, the implementing bodies and the managers. Cooperation between the various disciplines, rather than only harmonization, is a prerequisite for successful bicycle policy.

- ▶ **Translate the needs of the cyclist in all planning phases.**

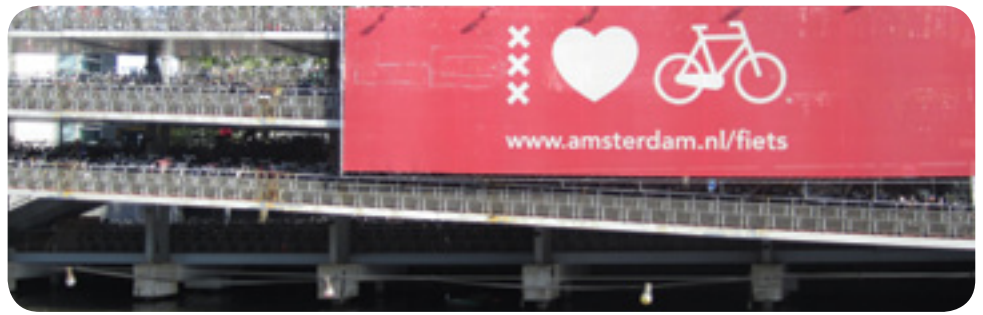
The world of policy-making is a fundamentally different world to the world of policy implementation. For a successful result, it is important that all parties involved in each of the planning phases take account of the needs and wishes of cyclists.

- ▶ **Rotate responsibilities and roles by public officials.**

One relatively simple recommendation is the rotation of responsibilities and roles in the field of bicycle policy. An official with experience in one of the seven city districts can bring expertise on implementing bicycle policy to the central city and help to improve the policy there. Likewise, staff members who switch between the roles of funding applicant and funding provider will gain a better understanding of how funding can contribute effectively to a 'higher purpose', which is usually the aim of both parties.

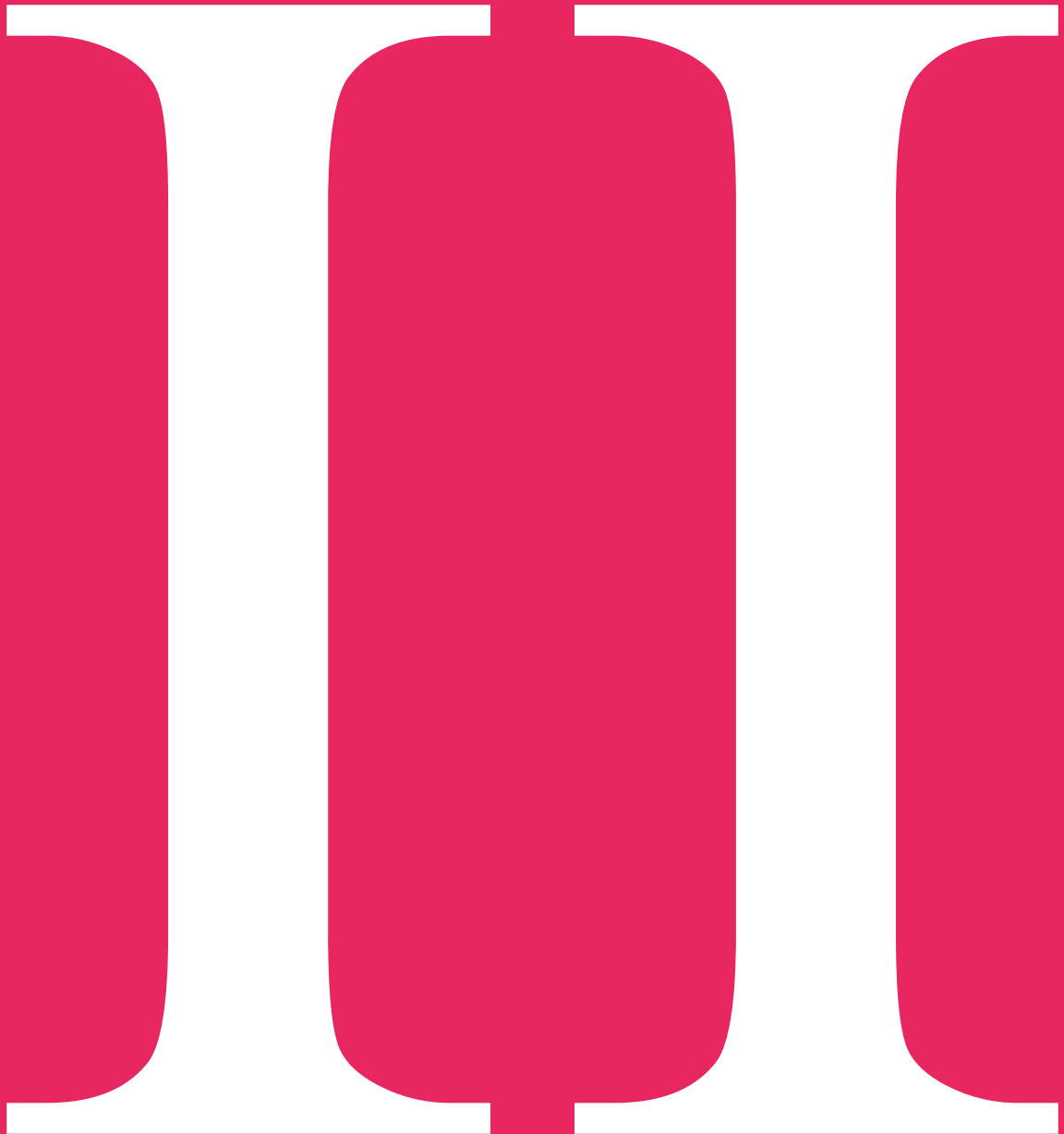


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- ▶ **Involve residents and interest groups.**
The transformation of the Dutch Cyclists' Union (Fietzersbond) from an action committee into a lobby group has had an effect that should not be underestimated. Their excellent contacts and influence with politicians have enabled them to place the bicycle much higher on the policy agenda. This applies both to improving undesirable existing situations and representing the interests of cyclists in new urban developments. Residents' committees and cyclists' interest groups are often the most knowledgeable hands-on experts on the subject. They can create a public support base for bicycle policy and the resultant measures.
- ▶ **People create synergy in institutions.**
Institutions are important, but it is ultimately the people who work there who determine whether bicycle policy will be effectively developed and implemented. People who are focused on working together to come to good results are more effective than people who strictly adhere to their predefined role and responsibility. The synergy in an institution is predominately influenced by the people who work there.
- ▶ **Emphasize political weight behind bicycle policy.**
Ultimately, it is the politicians who will decide whether the bicycle will be given more importance in the city. The City of Amsterdam demonstrates the achievements gained from a long-term and consistent pro-bicycle policy.





DISCERNING AND INCLUSIVE DESIGN

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CHAPTER 7. NO SOLUTION FITS ALL: ADAPTING CYCLING PROGRAMMES TO THE

One of the first lessons that experienced city politicians, executives and planners learn is that problems and solutions tend to be similar in spite of different urban contexts. This realisation dispels a popular notion among cities, which calls for reinventing the wheel each time a problem arises. In reality what is needed is attention and open-mindedness towards the initiatives of other cities, coupled with the ability to adapt what is valuable and useful to local conditions. Cycling programmes must be tailored to the local topographic, financial, infrastructure and behavioural context. Highlighted cities include Berlin and Graz, amongst others.



Lead Contributors:
Hermann Bluemel (Berlin), Burkhard Horn (Berlin),
and Karl Reiter (FGM-Amor)



"A lack of urban space requires new concepts of mobility: creative solutions are needed to keep the city accessible in the future as well. To keep Utrecht attractive and accessible, we are focusing on public transport and cycling... Inhabitants of Utrecht do use their bicycle to travel to the city centre, but the level could grow. I want to install more bicycle parking facilities, improve the infrastructure for bikes, and I will appoint a bicycle coordinator who will integrate existing cycle policies."

Frits Lintmeijer,
Vice Mayor of Utrecht

LOCAL CONTEXT, PRIORITIES & OPPORTUNITIES

7.1 National differences in background, institutional settings, and image

Cycling background, institutional settings, and image vary considerably across nations. In some countries, including many southern and eastern European countries, where the cycle share is low, cycling is not a topic on the national transport agenda and in public awareness. Other countries (e.g. NL, DK) which have a high share, invest in international promotion via cycling embassies to disseminate cycling know-how to other countries, regions and cities. If a national cycling strategy or action plan exists¹, cities and regions should seek to align as far as possible with the national strategy. Alignment with projects of national scope, such as the construction of a long-distance bicycle network along national highways and waterways can help provide the long-term support needed to promote cycling.

In many countries, cycling planning is part of urban or regional transport planning. However, specific responsibilities, national planning and integration, and funding sources often vary. For example, in Denmark, there is funding by the national government for new cycling infrastructure in cities, while in Germany, national funds are provided to cities only in a few exceptions or pilot projects. Approaches to winning funding are further discussed in Chapter 2.

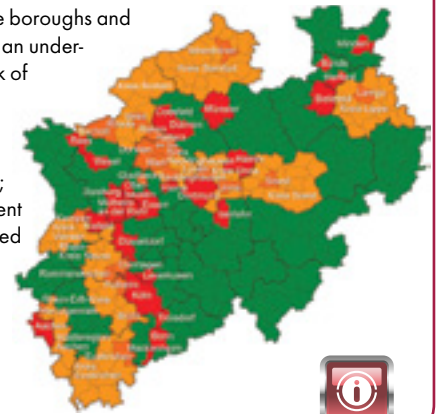
The image of the bicycle also varies nationally and strategies should be adapted accordingly. Hungary, for example has a similar cycling share as Denmark, yet cycling is more common in rural areas and small towns in Hungary. The higher use of bicycles in those areas can be attributed to the fact that fewer people own a car. Therefore, it would be important for Hungarian cities to stabilise the high bicycle share by increasing the image of this means of transport and promoting its status when compared to the car.

7.2 Transferring city experiences within a country

Within a nation, cities also vary greatly. A low country-wide cycling share does not prevent cities from setting an example and achieving high city-wide cycling use and awareness. In France, for example, Lyon and Paris broke the ice for more cycling in French cities with their bike sharing systems and started an international revolution for more bike sharing. The Italian Cities of Ferrara, Ravenna, Reggio nell'Emilia and Bolzano paved the way for other Italian cities to follow. Each of these Italian cities are in the north where it does not get too hot. Cycling has been popular in these historic cities for a long time - the cities have provided facilities which have also helped cyclists protect their cultural heritage. Effective measures adopted by these cities include access restrictions for cars to the city centre. And, Bolzano's integrated strategy of infrastructure improvement and marketing for cycling helped increase its cycling share from 18% to 29% and decrease car use from 40% to 34% in the period from 2002 to 2009. In Spain, the cities of Barcelona, San Sebastian, Burgos and Seville were the trend-setters in cycling.

National city networks for cycling, such as the group of German Cities (AGFS, Figure 7.1) or the Network of the Italian bicycle officers can be valuable, as can national conferences and the exchange between and training of national bicycle officers. In some countries with examples of successful cycling programmes, city planning teams can orient themselves towards these national examples if regional conditions are relatively similar (e.g. culture, language, institutional settings and resources).

Cycling conditions also vary greatly from one section of a city and region to another. In some boroughs and rural areas, cyclists are hindered by an under-developed bike path network; a lack of alternate, biker-friendly routes; intersections that are less conducive to cycling (e.g. areas with traffic signal deficits); and a larger concentration of accident black spots. Prioritising disadvantaged sites when expanding the route network can help gradually reduce these disparities.



¹A good example: the National Cycling Strategy of Germany <http://www.bmvbs.de/cae/servlet/contentblob/89724/publicationFile/62136/nationaler-radverkehrsplan-2020.pdf>

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"In 2011, we opened a cycle lane in the medieval city centre of Graz - an area with narrow streets and high building density. There is there, as in many other European cities, restricted space. But we took away 15 parking places to make more space for cyclists."

"Public participation is a key aspect in any decision-making process. In addition to making sense in itself, it is essential to ensure the feasibility of any measure."

Lisa Rücker, Deputy mayor of the city of Graz

7.3 Understanding the context of city successes

Success stories - whether real or perceived - and the pressure on politicians to copy these activities often dominate political debates on cycling policy. This best practice approach has a limited chance of success, but only if most of the preconditions mentioned above in the successful city also exist in the target city. If the preconditions are different, there is a serious risk of wasting money, frustration among stakeholders and ineffective cycling policy.

Furthermore, successful strategies and successful single measures must be differentiated. A strategy is a long-term plan of action consisting of several measures designed to achieve a defined target. A single measure may contribute to a defined target, but it could also be an obstacle if costs are high or other resources needed to implement effective measures are missing. The remaining sections discuss specific areas in which cities differ.

7.3.1 Snow, rain and hills

Inherently, city weather and topological conditions vary and these can affect cycling plans and strategies.

Some cities perceive cycling in winter as a barrier while others do not, showing the importance of city culture and mentality. In Oulu (FI), situated north of the Arctic Circle, temperatures are below freezing in five months of the year and within this period the city is also covered in snow. Nevertheless the cycling share is above 20%. This is a share that many cities with a much warmer climate do not reach. The example of Oulu could help other cities to promote cycling also during the colder season. Of course, cities should still strive for an inviting environment for winter cyclists as Copenhagen does, for instance. There is a clear priority to clean cycling paths from snow before other parts of the roads are cleared. Such a measure signals to the cyclists that they are welcome in the city every day of the year. Other cities start on a different level and have to provide winter cyclists with appropriate information as a first step. Of course the winter cyclists also have to be provided with the appropriate information and with positive recognition (like hot tea and cookies for winter cyclists in Vienna) or the promotion of spike-tires for bicycles in Graz.

Leisure time cyclists will argue that cycling is an activity for good weather conditions, and not suitable for rainy days. However, rain does not prevent people from cycling - like snow, it depends simply on the prevailing country culture. In Dutch and Danish cities alike, there are many cyclists on the roads on rainy days. And there are many more rainy days in these countries than in Southern European cities. However, if you consider a 30 minute cycle ride to work, then even in rainy places it will only rain, on average, a small number of days in the year in that 30 minute time slot. Of course cycling in the rain is more favourable with appropriate clothing. Apart from providers for outdoor equipment there are apparel companies making clothing that makes cycling in the rain fashionable. Rainy days also show the difference in cycling culture, while Italians like to cycle with their umbrella it is forbidden to do that by the Austrian road code.

In the Dutch city of Groningen the cyclists are rewarded with a very special service on rainy days. Traffic lights for cyclists have been equipped with rain sensors ensuring that cyclists get a green light more often when it rains. This is a clever way to prioritise bicycle traffic in bad weather conditions over motorists that are in a protected environment anyway.





A hilly topography is a barrier for cyclists. Solutions like the bike lift in Trondheim did not find many followers in other cities. Investigations in the hilly Austrian town of Weiz confirmed their hills are a barrier for cyclists. Yet the city administration did not accept that as an indication that they are not a cycling city. They decided to promote the use of Pedelecs and E-bikes. In this way even hilly cities and regions are able to increase their cycling share. The same is true for the hilly city of Stuttgart where a Pedelec-Sharing system was implemented to increase the popularity of this transport mode. The possibility to transport bicycles uphill with the public transport, e.g. by tram in Trieste (IT), by bus as in some US regions or with an elevator in Lisbon (PT) are local solutions that can be appropriate for certain niches but with no potential for mass use.

7.3.2 Bicycle parking

There are tailor-made bicycle parking solutions, including those for regions where bicycle theft is a serious problem and there is a need for a large number of bicycle stands and high quality locks to assure that the bicycle will still be there when the cyclist returns.

There are other regions, like the Danish city of Odense where more fragile bicycle locking facilities are adequate such as retractable bicycle stands. These are placed mainly in inner cities and are not visible when there is no bicycle locked there. However, this is not a solution in cities where regular street cleaning is necessary during the winter months - but they are an elegant solution for some historic city centres. In some places cycle stands are even sculptures, whose feasibility can depend on available funding.

Protected parking for bicycles where people live is very important because the bike is stored overnight. However, these solutions are best considered in the planning phase. In Graz, a guideline for building projects is in use which helps to integrate cycle parking from the very beginning. Car parking not immediately adjacent to the housing in collective garages helps to increase the cycle share. As the distance to walk to one's car increases, bicycle use becomes more favourable. The Dutch culture of collective garages instead of underground parking is part of their success in supporting bicycle traffic. In Vienna, entire buildings are constructed for cycle minded inhabitants.



7.3.3 Combining cycling with other modes of transport

Combining public transport with the bicycle using "Bike & Ride" offers at stations of public transport is a well-known activity adopted by many cities. Travelling with the bike or foldable bike with train and bus is another solution in times and areas with little bike traffic.

"Park & Bike" solutions are less popular but can be realised by putting a folding bike into the boot of a car or by storing a commuter bike at the car parking site. These solutions are linked to the culture of using foldable bikes. In the UK and other countries this has been promoted as a possibility for taking the bike in the train or in the car.

These intermodal combinations might be established as a complimentary system to the more popular Park & Ride solutions that combine the use of car and Public Transport. It is worth noting that cycling and public transport are not competitors. Both modes can help the usage of the other.

7.3.4 Traffic lights

Traffic light regulations differ amongst European societies, but in some cases, traffic rules can be changed to be more bicycle friendly. Such regulations help cyclists without causing any additional costs. France, for example recently introduced a new traffic regulation that permits cyclists to turn right at red traffic lights. In Denmark, the "turn-right-solution" for cyclists was implemented via infrastructural interventions. A "bypass" guides the cyclist past the red light and spares the cyclists the necessity to stop. This solution requires enough space at the junction.

Other traffic light interventions that show cyclists that they are valued citizens include the "green wave at intersections" for cyclists implemented in Danish cities and the priority given to Dutch cyclists at traffic lights.



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7.3.5 Moving goods by bike

A remarkable number of trips in urban areas are related to the transport of goods. Very often goods transport is associated with the necessity of car or lorry use. However, considering weight and volume, most goods could also be transported by bicycle, bicycle trailer or cargo bike. There is the potential to shift professional deliveries provided by logistics companies (e.g. Outspoken, Gnewt, Yellow Jersey) as well as shop-related deliveries (e.g. pizza delivery or home delivery services of supermarkets) from the car to the bicycle.

Cities with narrow roads and high quality pavement may be better prepared to adopt cargo bicycles as a solution. There is also a need for cities to adopt innovative logistic solutions for storage of goods in these cases. Examples are the micro consolidation centres in London or the Bento-box system in Berlin.

Copenhagen, the capital of Denmark, best demonstrates the high acceptance possible for cargo bicycles. Copenhagen has 520,000 inhabitants and 25,000 cargo bikes that are mainly used for private logistics (e.g. transport of children or shopping) but also for professional purposes – as cargo bicycles are an integrated part of Copenhagen's logistics concept. The potential for the use of cargo bikes is very high: 25% out of all trips (this equals 42% of all motorised trips) in European cities could be easily shifted to cargo cycling.



7.3.6 Rental bikes

Rental bike schemes are a big success in many European cities and especially in cities where the bicycle use was low in the past. In French cities, for instance, rental bikes replace bikes owned by individuals for everyday use. Therefore there is also much less requirement to park private bikes on the street.

In countries with a high bike share and a high private bicycle ownership there is more of a need for targeted systems. In the Netherlands, the National Railways run a very successful customised bicycle rental scheme that supports the intermodal transport system.

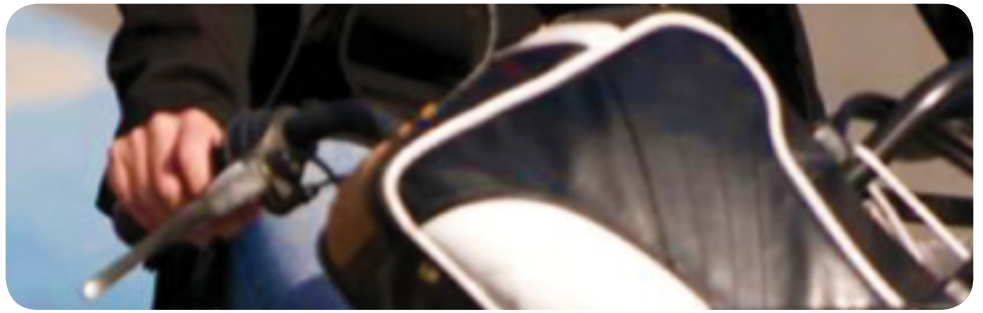
In the Belgian City of Ghent there is a special bicycle rental system for students that has more than 6000 yellow bikes. The motivation was to provide safe bicycles (lightweight, good brakes, etc.) to a user group that usually uses old bikes. At the same time this familiarises students with the feeling of cycling with high quality equipment and hence increases the chance that they will continue to cycle in later life.

The Technical University in Graz provides its employees with high quality company bikes (more than 700) that can also be used privately. These bicycles were financed with parking fees from motorists parking at the university grounds.



"The citizens of Odense know that whatever the weather does, the paths will be free... Cold and snow is no reason not to cycle."

*Mr. Steen Møller,
Mayor for Culture and Urban Planning, Odense*



7.4 Conclusion

The issues related to cycling use depend on the specific culture and conditions of a country and a given city. Examples of varying conditions have been described in this chapter.

Despite this need for customisation, there is a huge amount of experience in many cities throughout Europe and abroad. Cities can now learn from this wide range of schemes, strategies, projects and innovation all over Europe. And, this body of knowledge is continually growing. Organisations like POLIS, EURO-CITIES and others can help disseminate collective knowledge as can several EU-Projects including CIVITAS.



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CHAPTER 8. METHODS TOWARDS UNDERSTANDING INDIVIDUAL MOBILITY BEHAVIOR:

Perhaps more than any other mode of transport, cycling is strongly associated with personal safety, physical exertion, freedom, flexibility, and accessibility. These considerations can be at once selling or losing points, with the consequence that cycling programmes need to be designed with a full understanding of people's habits, fears and preconceptions. Planners must closely listen to their needs and suggestions. Moreover, people are not to be seen as a generic and homogeneous entity, but rather as a composite conglomeration of different age, cultural and socio-economic groups with diversified ambitions and necessities. Only the in-depth knowledge of such varying people-centred parameters affords the likelihood of success.

Lead Contributors:
Jeff Risom and Claire Mookerjee, Gehl Institute



"Shopkeepers used to believe that most of their customers came by car. Shopkeepers now understand that car-free streets are more attractive to shoppers and understand that change was good."

Jeanine van Pinxteren, Chair of the executive committee of the city-centre borough of the city of Amsterdam

SHIFTING THE STUDY FROM SYSTEMS TO PEOPLE

8.1 Shifting the focus from systems to people

Understanding individual choice can support increased cycling in cities as well as intermodal integration. However, people's preferences, local culture and motivations can vary widely, making human behavior difficult to predict. As a result, many design professionals, and the local authorities or companies that employ them have typically shifted their attention to more concrete and measurable aspects such as technology and infrastructure.

To facilitate a change in mindset, local authorities need to become experts in human behavior to explore how design, both of the city and of the information surrounding it, can affect human behavior and how social science can inform design. A mindset shift embodies the perception of safety, accessibility for everyone, invitations for young and old, the fit and the unfit, and men as well as women. To accomplish these aspirations, we must begin to measure people and social outcomes such as health, happiness, and safety with the same rigor with which we measure systems and characteristics of things.

This shift of focus from infrastructure to human behavior and from macro to micro is complex. It requires a multi-disciplinary approach that marries analysis to design know-how. Technical measures go only part of the way in facilitating well-designed multi-stage journeys; investing in public transport is only worthwhile if people choose to use it, and investing in green technologies is only sustainable if people behave in ways similar to expectations. The shift in focus requires adaptation to the local context which includes local attitudes.

Every two years, Copenhagen, Denmark, carries out a survey of cyclists to assess the quality of its cycling facilities and to understand direct benefits to cyclists. Over the years, this survey, the Copenhagen Bicycle Account (CBA), has become more comprehensive and sophisticated. It now questions non-cyclists on why they choose not to ride, and aims to assess the perceived level of safety while cycling. Questioning non-cyclists rather than listening only to cyclists is important to get more people cycling. The CBA has helped to optimise municipal investments in cycling infrastructure and to ensure the success of campaigns.

Not surprisingly, the CBA provides insight into Copenhagen's renowned success. In 2008, when asked why they choose to ride their bike in Copenhagen, the overwhelming 61% of respondents say it is convenient, fast, and simple - a much greater percentage than those who cycle because of health (19%), financial (6%), or environmental (1%) reasons. Stairs, illegible maps, overly complex stations, lack of bicycle parking and poor trip-planning opportunities from home are all relatively minor obstacles, and overcoming them will depend on the context in a given city. The key is to ask why and act on the responses. Here again, Copenhagen provides fruitful examples.

Gehl Architects have studied cyclists' behavior in cities where they have already provided extensive cycling hardware and have the accompanying high levels of cycling. In Odense, Denmark, observation, surveys and interviews revealed to them other direct benefits. Almost all cited flexibility as a great advantage to cycling and 63% stated that making impulsive stops along the way to look in shops, take in a view or for a social exchange was a great advantage. The ability to take short-cuts and the sensuous experience it added to their day were also frequently discussed. Observing cyclists revealed that almost all around them well beyond the traffic at other people, shop windows and nature. Stimulation such as this can also affect perceived journey times compared to actual journey times - 'time flies when you're having fun'.



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"Soft mode... soft marketing! The focus should be on behaviour change - on 'virtuous' marketing."

Denis Leroy,
Vice-President of La Rochelle Urban Community, France

8.2 Information Architecture

While we collectively strive to be healthier, wealthier and make wiser choices, can designers of the city help us by designing-in elements that support positive habit formation? New research suggests we need to focus on 'instant gratification' of a particular choice; in order to break a bad habit and create a new one we must appeal to the immediate benefit rather than the long term outcomes. Appealing to the immediate also works in changing behavior in line with how people want to behave. Feedback loops operate by providing people with information about their actions in real time, while providing insight into the consequences of these actions. If a viable alternative exists, this relevant info gives them an opportunity to improve those actions pushing them to better behavior. They have been very successful in a number of areas helping households reduce energy consumption, slow traffic amongst many examples. What is crucial is data - an opportunity to shift the behavior and then to measure the improvement. This could be an effective tool in increasing multi-modal individuals by collecting and exposing data on co-benefits such as calories burned, reduced CO2 emissions or data on our peers; for example, how many and who else is cycling to work that morning could potentially motivate us to cycle.



Framing travel times and costs is another powerful agent in promoting more sustainable and less wasteful modes of travel. If a journey timetable comparing two modes is present as in A, we do our own mental accounting which weighs pros and cons, financial and emotional, and we come to a decision based on a combination of those. If the journey is framed in gains as in B, we take note of the gain in our mental accounting, but it does not affect much and the likelihood is that the outcome will be the same as in A. Framed as a loss by car as in C, our cognitive accounting shifts. We want to prevent the loss and therefore are much more likely to choose the cycle ride. On the German Rail website, for example (DB), users can perform a mobility or environmental check showing the comparative financial / time cost for the train trip compared with car or plane.

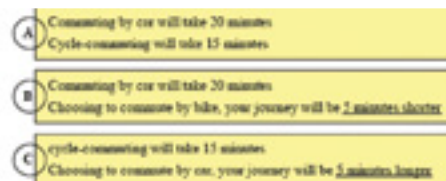
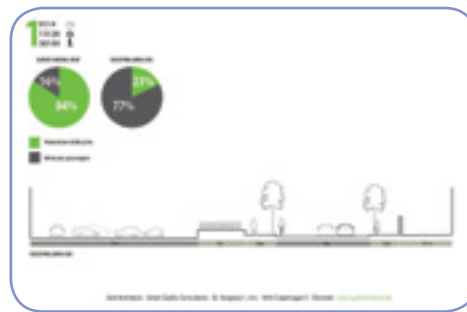
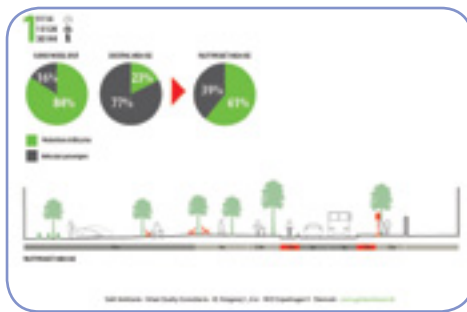


Fig. 2: Framing Effects: Three ways of presenting the same travel time information.



"It was only necessary to think some years ago how the majority of people moved and how the modern life made us unnecessarily dependent on the car."

Juan Carlo Aparicio,
Lord Mayor of the City of Burgos, Spain

8.3 Street Behavior

The behavior one street invites compared to another is hugely variable, and there are many things that affect cyclists and pedestrians besides just perceived safety from traffic. The scale of the street has a huge impact on wider feelings of comfort, security, and enjoyment. In a study for a pilot project in the Changning district of Shanghai, China, Gehl Architects profiled two neighborhood roads, both connected with the metro station and both developed at the same time. One has 84% cycling and walking and the other has 62% car traffic. The one with high car traffic has been completely re-scaled, with the buildings pulled back from the street to make way for parking and large footprint development (below right). The other has maintained its original scale with some buildings onto the street and some parking. The difference in environment that this creates is stark. The humanly scaled street is multifunctional, while the re-scaled street is mono-functional.

Shanghai once had very high levels of cycling, but this is declining for cultural reasons. In cities where cyclists once 'protected' the modal split and thus each other through sheer numbers, cycling hardware is now needed to for this protection. That is, such cities must now aretro-fit themselves as cycling becomes the less dominant modal choice.



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"It's extremely important to actually demonstrate what's possible on the streets quickly, even on a temporary or pilot basis."

*Janette Sadik-Khan,
Transportation Commissioner, New York*

8.4 Political focus on life quality

Cycling must be seen as a means not as an end. It is a tool to improve quality of life, not a goal in and of itself.

As we try to achieve integration of public transit and cycling, we will have to understand that not all public transit is the same, and cyclists do not all have the same needs. Using quality-of-life parameters, we can provide a variety of incentives or ways to break down barriers in order to diversify users. To achieve this fine aggregation, we need the data and evidence to support our arguments and to influence people's behavior towards more sustainable or life enhancing behaviours.

Current indices, such as those from The Economist or Monocle, measure liveability in terms of safety, crime, international connectivity, climate and political-economic stability. To our knowledge, no parameters currently exist to assess mobility systems, or their relationship with human parameters such as comfort, perceived safety and sense of belonging. More easily quantifiable measures for improved health, increased mobility and decreased commuting times would be a step in the right direction.

8.5 Culture and social status

Considering cultural and social status can help change perceptions and bring more user groups to cycle. The Cycle Chic movement that began in Copenhagen and has spread to Barcelona, Dublin and other cities help increase the number of citizens cycling for utility, and in everyday clothes. When Denmark's new finance Minister meets the Queen on a bicycle, it is a symbol of how the bicycle can also be a symbol of prestige and power.

In Copenhagen, 25% of all families with children currently own cargo bicycles, conveying a sense of practicality and convenience embodied by mini-vans in other cultures. Bicyclists generally have a higher education level than commuters primarily using car or public transit. Collectively these examples indicate a Copenhagen culture where the bicycle is part of a personal narrative; exemplifying the way of life, beliefs and values of the well-educated and high income group.

In New York City, the transition to a wider variety of people cycling is striking, as investments in infrastructure and campaigns are beginning to pay off. The father in Figure 8.7 claimed he would not have dared to bike home from soccer practice through the Flatiron District in Manhattan only two years ago, before enough cyclists were on the road to make it feel possible. Beyond numbers, seeing bikes on streets instills a personal-level character. When there is a feeling that cities are not just machines for business but instead true homes where the citizens belong, then more citizens will feel comfortable enough to cycle. The bike is a symbol of livability in this sense, which is an intangible but invaluable aspect for individuals.





8.6 Conclusion

The examples in this chapter reinforce a truth so often taken for granted: people do not change their behaviour when you tell them to but when the context urges them to. Before we can expect to alter people's mobility choices, we need a better understanding of why they make the decisions they do. This does not have to be an expensive and arduous task. Surveys like the CBA are affordable via online data collection. Existing public transit and census data can be used to uncover previously unnoticed patterns and tendencies.

A summary of policy and design recommendations discussed include:

- ▶ Identifying 'predicted irrationality' (Ariely:2008) can help find sweet spots for incentives towards sustainable behaviours.
- ▶ Travel information such as travel time, travel costs or risks should be seen not only as a service to the public but also as an instrument to change travel behaviors.
- ▶ People focused KPI's such as the quality of travel experience should be designed with the same weight of importance as system focused KPI's such as transport capacity and costs.
- ▶ Observational analysis such as mapping cyclists behavior and periodic cyclist and non-cyclist surveys can be an excellent exercise in presenting and framing alternative transit choices.
- ▶ The addition of new layers of feedback can incentivise active mobility; the key is to refine and redesign based on this information.

Furthermore, focusing on the 4 C's of cycling infrastructure; Consistent, Connected, Continuous, and Comfortable; can radically alter convenience and attractiveness of bicycling. This entails consistency in the design and layout of cycling infrastructure, connections along cycle track networks and between other forms of transport, the optimisation of comfort and convenience from door to door, and continuous improvement of the network using surveys, observational analysis and geocoded data as feedback from cyclists and non-cyclists. The 4 C's will manifest themselves differently in different cities.

Taxpayers are justified in demanding value for their investment, but cycling infrastructure is only successful if people choose to use it. Therefore we have to invite a diverse and varied group of cyclists to utilize these investments. In these crisis-riddled times, it is important to remember the mantra of "Never allow a crisis to go to waste". In Denmark, it was the 1973 oil crisis that spurred reinvestment in bicycle and reinvigorated the cycling culture in the country. Crisis and chaotic conditions force us to think and act differently. By planning for the prevailing everyday condition and developing contingencies for the extreme we can unleash a new and more effective wave of investment that as Charles Laundry advocates can "radically reclaim common sense" in the way we plan and build communities. Such a change in mindset will not only promote cycling in a variety of challenging conditions but also reconnect people with the environment in which they live.



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CHAPTER 9. HANDLING **HARD** AND **SOFT** MEASURES:

Topic: The right recipe for investments and energy is ultimately a function of the context conditions previously discussed. Still, some actions have been seen to be more fundamental than others in increasing cycling share in a city. What is not going to work is a programme that expects to trigger more cycling by purely investing in individual items such as additional cycling lanes, a new bike-sharing scheme or an umbrella promotion campaign. The secret is in balanced hard and soft provisions, and in integration with the entire transport network. Lessons are shared from Bogotá, New York, and beyond.

Lead Contributor:
Gil Peñalosa, Executive Director, 8-80 Cities



"The city of Graz is on a local level in regular contact with ARGUS, the Styrian cycling lobby... They always have a point of view of user groups which is very important and vital, sometimes we have also conflictive but fruitful discussions."

*Lisa Rücker,
Deputy Mayor of the city of Graz*

FIRST TACKLE THE **MUST HAVE**, THEN THE **NICE TO HAVE**

9.1 The Influence of Champions

One of the key elements for increasing cycling share in a city that prevails across all cities and continents is to have champions who will get things done. People like Janette Sadik-Khan, New York City's Transportation Commissioner who understood that transportation meant "moving people" and not just cars, and built the first significant number of protected bikeways in North America. She also built hundreds of pilot projects to benefit pedestrians, cyclists and public transit and opened the eyes of North Americans and other regions to what was possible.

Another champion is Paris's mayor Bertrand Delanoë who implemented the first public bicycle system in a large city with 20,000 bicycles and over 1,500 bicycle stations which has translated into 200,000 additional daily rides; in the process he eliminated 7,000 car parking spaces in order to install these stations. Although there had been public bicycles in Denmark and Holland for years, the fact that Paris had them and at such grand scale, provided the "blessing" for politicians all over to move ahead with similar projects.

While Commissioner of Parks, Sport and Recreation for the City of Bogotá, Gil Peñalosa led the re-birth of the Ciclovía; this is a program where streets are opened to people and closed to cars for seven hours every Sunday and holiday of the year. This rebirth transformed a small dying program with a few kilometers and participants into a network of 121 kilometres, with a managerial structure, promotion and marketing. Furthermore, it increased the participants many times over, reaching over one million per Sunday for 52 weeks of the year and has been the inspiration to over 50 cities. In addition to improving the environment, public health, economic development and recreation, it is a great example of social integration, and demonstrates that streets are our largest public space and do not have to be used exclusively by cars.

When Enrique Peñalosa was mayor of Bogotá, he built more than 280 kilometres of protected bikeways in just three years. This was a very ambitious project, as there was previously not one metre of this type of infrastructure in Bogotá or Latin America. It increased the share of trips on bicycle from 0.4% to over 5%. With an investment of \$ 90 million, this network of protected bikeways is used by more people per day than a subway which was built at the same time in Medellín with an investment of over \$ 2,500 million. This project showed the world that modern day safe bikeways were not just for wealthy European countries but could and should be built in developing countries with enormous benefits to the community as well as to the individual rider's quality of life and personal economic wellbeing.

9.2 Lowered speeds - a "must have"

One action that has been shown to substantially increase the number of people riding bicycles in any city, small or large, is lowering the speeds of motor vehicles in neighbourhood streets.

In fact, no city where people have access to cars has achieved a cycling share of more than 10% without requiring low speeds in neighbourhoods or without creating networks of protected bikeways (see section 8.3).

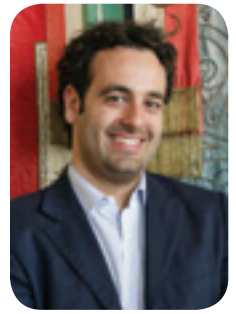
Lowering the speed to below 30 Kph (or 20 Mph) is not just a pleasant thought - it saves lives. We walk at 5 Kph and bike between 12 - 20 Kph so when cars are going at 25 - 30 Kph we feel at ease, but not when they go at 40 Kph or more. If a car hits a person while moving at 30 Kph, the probability of killing the person is 5%, while if the car is moving at 50 Kph, it goes up to over 85%. There are many studies that confirm these results which is why the World Health Organization (WHO) and the European Parliament have recommended in 2011 that all cities make 30 Kph the maximum speed limit where people live. And, lower speeds not only benefit cyclists, but also benefit pedestrians, the elderly, parents with children and the disabled, and bring life to the city at large.



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"I am strongly committed to improving city life by creating a new way to move around the city: smarter and safer and using less energy polluting energy sources. New action plans for the historic city centre have been launched. These aim to revolutionise mobility in the city, giving priority to pedestrian orientated measures."

Mr. Andrea Colombo, Mobility Councillor for Bologna



9.3 A Network of physically separated bikeways - a "must have"

Creating a network of bikeways that are physically separated from motor vehicles and people is the other "must have" for achieving a high cycling share, particularly when traffic speeds are high. In Copenhagen the norm is that if a street has a speed limit of 40 Kph or higher or has more than 5,000 cars per day, it must have a cycle track, which is a bikeway with a physical separation from cars. This is often not in immediate reach for many cities just starting to raise cycling awareness but should be a target goal.

The network must connect places of origin with places of destination. Quite often, cities build a protected bikeway of a couple of kilometres and then claim that they do not have a "bicycle culture" as very few people use it. A bikeway is just a piece of a bigger network and will not function by itself. The network must enable people to ride bicycles from their places of origin to their destinations using exclusively neighbourhood streets with speeds below 30 Kph in combination with arterials that have physically segregated bikeways.

Ideally bikeways should be unidirectional, next to the sidewalk, with a physical separation from cars and be permanent. Nevertheless, if the city does not have the funds or the political support to make it permanent, it can build a grid of temporary bikeways for two to three years, as long as they meet the necessary conditions of creating an interconnected network with physical separation from cars.

Recent successful projects include Seville, Spain, where in 2007 less than 0.5% of the trips were made by bicycle. In 2007, they did not have one protected bikeway. In four years they built a network of over 150 kilometres of permanent segregated bikeways and the share of people using bicycles rose to above 6%. They aspire to double that by 2015.



New York City led the way in North America on creating temporary protected bikeways by painting a buffer zone and putting bollards in the middle of it. The new Administration in Chicago under the leadership of Mayor Emmanuel is using this model to build a network of 100 miles (160 kilometres) in his first term. He built the first one on Kinzie Street in the first 30 days of his Administration. Mayor Emanuel and his head of Transportation, Klein, are aligned with the champions mentioned at the beginning of the chapter and understand that the citizens are paying them every week to get things done.

One question to ask ourselves in designing a cycling network - would you send an eight year old or an 80 year old to use that infrastructure? If you would, it is safe enough, if you would not, we have to do better.

9.4 Balancing the "nice to have"

Well intentioned decision makers and activists frequently promote actions that make cycling more comfortable to people who are already riding bicycles. These actions are often nice to have and include printing maps, installing parking racks or bicycle lockers, hosting workshops, mounting racks on buses, painting lines on the pavement of roads with traffic speeds over 40 Kph, signage, and more. They are easier than "must have" as they usually do not create much conflict, are visible and create the sense of doing something. While the impact of these actions can depend on the context, they typically do not result in many new cyclists on the road, as witnessed by experiences of hundreds of cities.

Furthermore, these measures alone can run the risk of setting plans back when skeptical stakeholders claim that they should eliminate new investment of cycling infrastructure as "it's evident that we do not have a cycling culture as the number of people riding bikes has not substantially increased following the actions taken." "Nice to have" actions should be part of a comprehensive strategy that first focuses on "must have" and seeks to increase and broaden the community of cyclists. Combining them with other initiatives can create a multiplier effect.



"There is still a need for political champions for cycling, even if we all agree. You need someone to lead the way and to keep the focus."

Mr. Steen Møller, Mayor for Culture and Urban Planning, Odense

"I recommend cities create a basic network of cycle paths to encourage cycling mobility and also take measures to calm traffic, allowing bicycles to share space with other vehicles in the streets where there is no cycling infrastructure."

Idoia Garmendia, Deputy Mayor of Vitoria-Gasteiz, Spain

9.5 Conclusion

City champions and the right balance between hard and soft measures can move any city to achieve great progress. City leaders need to be decisive and proactive in getting things done, as the examples in this chapter have illustrated.

Implementing the two "must haves" above will not only increase and diversify the number and types of people riding bicycles. It will also improve public health, provide cleaner environment, more local economic vibrancy, recreation for all and better transportation. By striving to reduce the speed to below 30 Kph on all streets where people live and creating a grid of bikeways that are physically separated from pedestrians and from cars, we can substantially improve the quality of life for all citizens, create nice walkable communities, take full advantage of investments in public transport by improving links to it, and advance all car-free modes of transportation.



II

CHAPTER 10. NEW MOBILITY HABITS REQUIRE EXTRA ATTENTION: INFORMATION

Because cycling is influenced by long established perceptions and mobility habits, programmes must work substantially on the behavioural aspects of modal change. Whether it is based on infrastructure, softer types of provisions, or both, the design of a cycling programme cannot overlook appropriate communication and marketing techniques. The effectiveness of urban mobility policies is increasingly reliant on the ability to speak to the heterogeneous audience of intended users, which must be reached and convinced with ad-hoc messages. Lessons learned on this topic are shared by London and Berlin.

Lead Contributors:
Tilman Bracher (DIFU), Tom Bogdanowicz (London),
and Marguerite Reinig (London)



"There are some messages that need to be properly targeted to certain citizen groups and the collaboration with the users has been absolutely fruitful."

Juan Carlo Aparicio,
Lord Mayor of the City of Burgos

ENCOURAGEMENT AND PROMOTION FOR A SMOOTH MODAL TRANSITION

10.1 Personal and social influences on the behaviors of diverse user groups

For many decades, transport policy, planning and mobility patterns in communities all over Europe centered around the car, which became the dominant mode in the minds of the mobile population, or users. In order to facilitate the change of these long established perceptions and habits, communication and marketing techniques become essential.

While traditional marketing and promotion strategies and services such as advertising campaigns, online route planners, and free cycle maps are essential in promoting and encouraging an uptake in cycling, this approach may provide insufficient incentives to the individual needs of the many population groups. Though different population groups face different barriers to cycling, depending on a city's infrastructure and socio-economic make-up, barriers can generally be grouped in three categories¹:

- ▶ Personal factors deterring people from cycling include concerns about cycling in traffic, a lack of confidence in their cycling skills, and uncertainties about how to make sure a bicycle is roadworthy and how to fix minor repairs.
- ▶ Social factors and the extent to which cycling is accepted as a norm within a given social group. Such social norms vary from group to group but can exert a great influence on the behaviour of an individual. For example, some groups perceive car ownership as a status symbol reflecting a certain level of income. Conversely, using a bicycle as a primary mode of transport may then be interpreted as conferring a lower social status.
- ▶ Context factors, such as concerns about the climate, hilly conditions and gradients, and concerns about the lack of sufficient infrastructure and economic incentives. Adequate cycling infrastructure provision and financial disincentives to driving such as road pricing, or higher car parking charges can make the economic case for cycling.

In order to successfully facilitate behavior change, each set of factors needs to be understood and addressed. Context factors are best addressed within the policy sphere, as discussed in chapters 1, 2 and 3. These chapters focus on the personal and social challenges that individuals from different communities face and how community cycling programmes can provide the information, training and encouragement required to overcome them. While this chapter focuses on techniques to influence individual user groups, the importance of influencing politicians and decision-makers should not be forgotten (see also chapters 1, 2, 3).



¹COI, Communications and Behaviour Change, p.11



II

10.2 Participatory approaches

While some audiences perceive cycling in a positive light and are held back mostly by personal factors, other groups hold more negative attitudes to cycling linked to social factors. Both sets of factors can be tackled through participatory approaches to planning enabling communities to be an active part of a modal transition.

For instance, the provision of start-up funding together with organisational and technical assistance allows relatively inexperienced and informal groups to create small-scale projects that address the barriers to cycling specific to their communities such as teaching bike maintenance skills, providing secure storage for bicycles, or offering women-only cycle training. Originally pioneered in 2000 by the London

Cycling Campaign with charitable funding, (at the time there was no access to government funding for such projects), the success of the projects launched in this way, some of which developed into self-supporting social enterprises, led to the direct involvement of institutional funders. These funders include Transport for London², but also third sector and corporate funders. In 2003, the Community Cycling Fund for London (CCFL) was formally launched with Transport for London as its main supporter and the London Cycling Campaign as the administrator. The fund works with communities to build role models and enable groups to set up and run their own cycling schemes by providing seed funding to get cycling projects off the ground³.

²Transport for London is the city's primary public transport provider and the highway authority for major roads. It answers to the Mayor of London.

³Set up in 2003, the Community Cycling Fund for London promotes, encourages and supports cycling across London in line with Transport for London and the Greater London Authority's targets to increase cycling levels.

Working with a wide variety of different groups from schools and nurseries to special educational needs, mental health, and refugee groups, the fund focuses on establishing successful sustainable cycling projects and strengthening community groups' capacity for continued development. During an annual funding round, individuals and not-for-profit groups can apply for grants of up to £6,250 to set up a cycling project within their community. The funding period covers one year from receipt of the grant during which successful applicants are supported by experienced London Cycling Campaign staff to deliver their project.

In this process, an individual or group self-selects to apply for the funding and agrees to be responsible for the project. This ensures the buy-in from a member of a social group who then acts as a role model and community leader making it easier to reach and engage others of the same group. The grant funding covers capital costs such as bikes, storage, maintenance tools, and spare parts as well as the cost of training cycling instructors and bike mechanics. By funding projects to acquire new skills and to apply them within their communities, it has been possible to support the very hard to reach groups from low income, NEET⁴, and BAME⁵ backgrounds to increase cycling in their communities. At an average per capita cost of between £18 and £37,⁶ the bottom-up approach of this funding programme has been particularly successful in engaging groups resistant to top-down change and has enabled the creation of unique projects that address the specific needs and requirements of the intended beneficiaries⁷.

Even though the programme today benefits greatly from the wider investments in cycling that have been made over the past decade in London, from the 'Bikeability' cycle training scheme (a government standard for training adults and children to cycle in today's conditions), availability of detailed cycle route maps free of charge, and participation in large organised bike rides, to improved cycling infrastructure and cycle hire facilities, the key to its success has been its ability to consider and cater for the needs of a heterogeneous population. For example, projects working with older people run activities near participants' homes and during the day-time; those working with disenfranchised young people focus on teaching employability skills such as bike mechanic training; and activities geared towards women are run by female cycle instructors and bike mechanics.

⁴Not in Education, Employment or Training

⁵Black, Asian, and Minority Ethnic

⁶In 2011, the Community Cycling Fund for London (CCFL) supported 27 cycling projects that worked with 3,437 participants (cost per capita £ 36.37). A further 3,304 Londoners attended events and bike rides organised by CCFL funded projects (cost per capita £ 18.54).

⁷Community Cycling Fund for London annual reports and case studies of individual cycling projects including videos available from <http://lcc.org.uk/pages/success-stories>





"Improving the conditions for bicycle users is a measure towards greener capital. Today there are about 218 km of bike paths and 192 additional bike parking places were installed in the city centre. During the bicycling high season from May to September, the city provides guarded bicycle parking, which has become more popular year by year. Bicycle use is a growing trend in Tallinn, people are more aware of mobility choices and make smart decisions. Many have decided to abandon the car for shorter trips and use bicycle or PT instead."

Mr Taavi Aas, Deputy Mayor in charge of mobility in Tallinn

"Communications, education, public awareness and participation must play a very important role in this process of promoting the use of bicycles."

Idoia Garmendia, Deputy Mayor of Vitoria-Gasteiz, Spain

Case Study: Community Cycling Programme in London

For any recent visitor to London the new visibility of cycling is very noticeable: not only the bright blue public hire bikes in the centre of town but the hundreds of cycle commuters passing Buckingham Palace daily or riding through Hyde Park. It is also no longer uncommon to see men and women from minority ethnic groups riding on the streets of the capital, or pedalling in London parks.

While the bulk of local government funding for cycling in London (total central funding according to Transport for London increased from approximately £10 m in 2003/2004 to £100 m in 2010/2011) has been spent on infrastructure and a new public cycle hire scheme, a small but important allocation has gone to community cycling programmes. These programmes are often match-funded or replicated by third sector or corporate funders and are dedicated to overcoming barriers to cycling not easily addressed through infrastructure investment and top down marketing and promotion techniques.

As part of its Travel Active Cycling & Walking programme, the National Health Service (NHS - the UK's state health services provider) in Greenwich, London, has been working with the London Cycling Campaign and a local bike retailer to encourage residents to cycle to improve their health and to introduce them to cycling as a cheap and convenient mode of transport. A bicycle loan scheme enables those who are interested in getting cycling to loan one of a pool of 50 bicycles for up to a month. The programme provides the support to help participants incorporate cycling beyond the four-week loan period by offering an induction session to each participant which includes a bike fitting and adjustment, cycle safety advice and cycle training for those who are not comfortable cycling in traffic. In addition, participants are able to purchase the bike at a subsidised price at the end of the loan period and make the payment in installments over four months making it much more affordable.

Participants are initially recruited through advertising in the local newspaper and through NHS Greenwich's outreach workers. Regular e-newsletters ensure a continued channel of communication, including useful tips and advice, and details about social rides and other events.

By pooling the resources, experience and knowledge of the London Cycling Campaign, bike retailers, cycle instructors, and NHS Greenwich, it has been possible to conceive a scheme able to initiate real behaviour change. In the first six months alone over 250 people registered on the programme.

Project participant Ignatius used his bike to cycle into work, to do the shopping, and he purchased the bike at the end of the loan period. He has since lost weight, reports to feel healthier and has bought bicycles for his children, Dan, Joyce and Michelle, to cycle to school. He says 'everyone in my local community has been asking about the scheme and wants to find out how they can get involved.'



II

10.3 Social campaigns to appeal to emotions

Social marketing campaigns integrate advertising methods with sociology, psychology and behavioral science. In Berlin, the campaign “Kopf an - Motor aus”, or Turn your brain on, shut your engine off, followed a competition promoting Zero Emission Mobility. The campaign included creative and emotional activities and giveaways like small gifts for people who walk or cycle, posters and movie tickets. Kopf an - Motor aus was initiated and co-funded by BMU, the ministry for environment, to reduce carbon dioxide. The motto “Kopf an - Motor aus” was selected by an independent jury among competition entries from more than a dozen agencies with different approaches. Finally, nine cities were selected out of 94 applicants by a national application procedure to take part in the campaign, according to its own involvement, its mobility pattern and various sizes. By participating, all 94 cities committed themselves to convincing people to replace the car with cycling and walking, by showing how good this is for health, finances and the environment.

“Kopf an - Motor aus” is based on the assumption that if you want to change behavior, you should not communicate your message with a wagging finger. Instead, recipients should think: “That does not just make sense, but also sounds fun.” Showing how much their health, wallet, environment and community benefit if they use cycle tracks and footpaths can help bring people out of the car and onto the bicycle seat or walking. “Head on: engine off. For zero CO2 on short routes” is just what you need.

The theory behind the concept is based on psychological behavioral research (Transtheoretical Model). It includes:

- Selecting target groups that are open for environmental argument and not determined to car use only, e.g. shoppers of organic food, or parents of school children, who should learn to be mobile themselves,
- Developing provocative, amusing messages to motorists where they should change their behavior: on commuter routes, near schools, shopping, or to hug and squeeze people who came shopping without a car, or to provide small gifts for motorists,
- Three separate stages. First, the preparation phase, where both rational and emotional arguments for the CO2-free city driving were communicated to encourage reflection. Second, an action stage, when specific occasions for motorists were created to cycle or walk for themselves. And third, the confirmation phase to motivate all those who already cycle or walk by gifts or positive feedback. Evaluation results prove that the campaign was well noticed in public, attitudes within the population have changed, and participation stakeholders collaborated for cycling and walking. However following a change of government in 2009, BMU ceased to fund the campaign on the National level. Due to its success, a few cities however decided to run follow-ups from their own budgets.





"My desire is to turn Funchal into an even friendlier city for the people, with fewer vehicles, less pollution, less noise. A decisive effort is being made to improve the quality of life in the city through the reduction of transport-related emissions, traffic reduction in city centre and the increase of modal split for sustainable modes. CIVITAS MIMOSA is contributing with important measures towards sustainable mobility and promoting significant partnerships among stakeholders of urban transport."

Bruno Pereira,
Deputy Mayor of Funchal

10.4 Developing stakeholders' perception and competence through online resources and training

To support communication to all, online information sources and marketing techniques are effective at low cost. In Germany, www.nrvp.de was started in 2004 to provide the stakeholders and the public with information on cycling planning and policy which has not been easy to access before. It is currently Germany's main knowledge resource on cycling policy and provides access to all publications and resources of Germany's know-how in bicycle policy and infrastructural planning, as well as important international documents. It contains around 7,500 entries on federal initiatives and funding measures, practical examples from the federal government, the Länder (states) and municipalities, news updates, a literature database (many publications for downloading) and a list of events. It also includes a regularly updated funding handbook on regional cycling funding and EU funding.

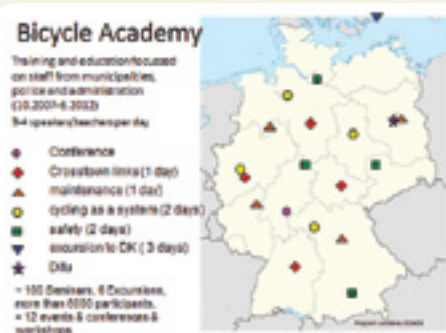
Subject-specific literature is published also in English, and the publication of the available editions of "Cycling Expertise" represent yet another step towards further knowledge transfer. A regular newsletter in German keeps 1.750 subscribers informed about the latest developments and provides municipalities with information on changes in cycling policy. There is also a short newsletter in English available.



To supplement the resources were made available on the web, an education programme for German municipal staff, the Bicycle Academy ("Fahrradakademie"), was set up in 2007 for educating planners and traffic authorities, as well as for communication towards key stakeholders in town halls.

Bicycle Academy is run by the cities' owned German Institute of Urban Affairs on behalf of the Federal Ministry for Transport. About 20 seminars, conferences and workshops over Germany were held every year, providing contacts between experts, planners and other stakeholders. The one-day or two-day seminars attract municipal staff at low travel expenses and time budget. Main content of the seminars are the practical issues of bicycle planning and public awareness of cycling policy. Regular excursions abroad - so far to Holland, Denmark, France and Switzerland - are offered to high level decision makers, as are special events for members of the national parliament.

The result of the Academy's effort is obvious regarding the rising quality of all kind of cycling planning in Germany's regions. Recently the Bicycle Academy was named "corner stone", and a permanent structure is envisaged by the latest National cycling strategy.



10.5 Competition and encouragement

Projects that support competition and encouragement for cycling can be very effective, as seen among the more than 100 projects funded by Germany's NRVF within the last ten years. They can help to create innovation, change attitudes, and change behaviour towards more cycle use, respectful driving, integrated planning and balancing decisions.

Benchmarking is one type of project that has proven to be effective in stimulating competition among cities. Since 1988, the Bicycle Friendliness Assessment ("Fahrradklimatest"), had been applied several times to monitor qualities and success in bicycle politics of German cities. Local bicycle users complete a questionnaire based on 27 items on cycling. Although the instrument distributed by local user groups and cooperating media "just" provides data on attitudes and lacks statistical validity (such as objectivity and representation) the goal's results on the progress of bicycle friendliness were convincing and received wide media coverage. A new 2012 survey, co-funded by the National Cycling Plan, is carried out by ADFC, Germany's cycling user group



II



10.6 Using consumer marketing techniques

Increasingly cities are resorting to marketing techniques that are commonly used in the world of consumer products. The assumption is that cycling can be seen as a product to be sold on the market, and marketing allows persuading people to change their travel behaviour and adopt more energy efficient forms of transport.

Campaigns based on these techniques usually require:

- ▶ Knowledge of the users: who are they, where do they live, what do they like, how and where do they move, how do they regard cycling?
- ▶ Group segmentation: definition of homogenous groups in terms of attitudes towards car use, cycling, climate change, health, or in terms of home and office location, cultural background, daily movements, etc.
- ▶ Design of bespoke campaigns that are informed by these findings and that are likely to effectively strike the right cords with each identified user group.

There are several examples demonstrating the effectiveness of these techniques when applied to cycling, and even international projects that have been studying and disseminating successful practices⁸. Experiences such as those of the two London's Boroughs of Kensington and Chelsea (Bikeminded campaign, www.bikeminded.org) and Hounslow (Cyclicious school campaign, www.cyclicious-cyclone.org), or Gothenburg's Cycling is easy! campaign (www.nyavagvanor.se) confirm the positive contribution of consumer segmentation techniques in overcoming perceptual or attitudinal barriers. Research suggests that behavioural change is more likely to happen during 'life change situations' such as a job change or a home move, as people tend to be more open to change other significant habits.

⁸IEE projects SEGMENT, CARMA

10.7 Conclusion

It is important to understand the varying incentives and disincentives to cycling across diverse city populations in order to facilitate a modal transition. While some groups are more susceptible to traditional top-down marketing and promotion techniques, others require additional support to overcome cultural and socio-economic barriers. Appropriate methods need to target citizens and politicians alike. When behaviours are deeply ingrained and difficult to change, the role of information, promotion and encouragement should be extended beyond the conventional approaches. Participatory strategies, from capacity building to skill sharing, enable communities to have a voice in the transition.

Campaigns should also address relevant stakeholders, including politicians, decision makers, police and administration, shop-keepers (parking), and public transport staff. To get the bicycle into the mainstream of politics, policies should integrate all regions, all audiences, and all mobility purposes.

A successful strategy to increase cycling needs to understand the audience it is aimed at. Identifying the different subgroups and explicitly considering their specific personal and social barriers to cycle use enables the conception of programmes able to support the mainstreaming of cycling across diverse populations.





WEBSITE

The book is linked with the portal: Pas-Port to Cycling. The Portal has 9 websites:

- ▶ **'THE EMBASSY':**
is the Service Desk & Reception
- ▶ **'THE CYCLING LAB':**
offers a process for sustainable urban mobility planning
- ▶ **'SHOWCASING':**
offers specific policy concepts
- ▶ **'EXPERIENCE BY PEERS':**
positions cities with expertise
- ▶ **'THE STUDIO':**
is a Portal to Innovation
- ▶ **'THE PUBLISHER':**
provides news in articles, web TV, pictures, blogs and websites
- ▶ **'THE CONSULTANCY':**
is the Portal to Solutions
- ▶ **'THE FACTORY':**
is the Portal to Products
- ▶ **'THE ACADEMY':**
is the portal to Knowledge and Good Practice



Book portal: www.pas-port.info

Chapters with search buttons: www.pas-port.info 'The Publisher'





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Lead contributor to Chapter 8

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