Cycling-Inclusive Policy Development:
A Handbook

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interface for cycling expertise

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1. Introduction: learning from others' successes and failures

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We can learn as much from our failures as from our successes. In the case of urban and transport planning in European cities, many mistakes have been made, above all the tendency to facilitate unbridled use of the car, which has brought many unforeseen difficulties, particularly in terms of road safety and the harm it has done to quality of life. In many ways, this handbook is about positive responses to negative developments.

1.1 Urban transport planning: learning from the failure of the car-based city

Learning from the mistakes made by European and North American cities gives planners everywhere the chance to avoid problems that often block further changes today, allowing them to leapfrog beyond the so-called developed cities to address recent problems (heterogeneous mix of traffic, availability of motorized two wheelers and low marginal cost of using a two wheeler, plus contemporary issues such as climate change) more effectively.

Improving the share of daily commutes made by cycling and walking has been an uphill battle in many cities. Before World War Two, private cars played a limited role in city transport systems. In Amsterdam, cycling's share of total trips (car, moped and public transport) was 70%, versus 20% in Basel (Switzerland), with cities in Germany, Denmark and England somewhere in between. From 1950 on, as incomes soared so did car ownership.

Throughout the 1960s, cities responded consciously or unconsciously by facilitating motorized traffic, above all, cars. In some cities, highways invaded old city centres, with politicians, engineers and citizens treating this almost as a 'natural' development. Moreover, people assumed that as walking and cycling were replaced by cars and mopeds, road safety would improve. Instead, although the number of cyclists decreased, the number of fatal accidents amongst cyclists and pedestrians soared.

Figure 1

Cities in Europe are transforming transport and urban policies, offering useful lessons to all.

Photo by Carlosfelipe Pardo

The first pressure groups appeared, demanding that local and national politicians react. Fifty years later, in 2008, the American Institute for Highway Safety expressed the same erroneous hope for India: switching from cycling to driving was expected to improve road safety.

By the 1970s, cycling's share of daily commutes bottomed out, at 3% (Manchester, England) and 27% (Amsterdam). Quality of life went into a tailspin. Old city centres became less attractive to pedestrians who saw "their" sidewalks and parks taken over by moving and parked cars. City centre or central business district economies came under pressure from car-friendly shopping malls on the outskirts. Small shops could not compete, but malls were not in easy reach of most cyclists and pedestrians.

So city traffic and transport became increasingly car-centred. We began to create cities for cars, rather than people. In Europe, however, this decade saw people and pressure groups begin to oppose these developments. Awareness grew that road fatalities, environmental impacts and poor liveability of cities were too high a price for this so-called "progress".

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Box 1:
Sustainability: a key concept in this handbook

Sustainable society This term, coined by the Brundtland Commission, led by former Norwegian Prime Minister Gro Harlem Brundtland, defined sustainable development as that which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (see http://www.un.org/documents/ga/res/42/ares42-187.htm for the original report). In this sense, a sustainable society seeks to apply this principle to its current environmental capacity, social and economic needs, working to reinforce cycles of energy, materials and other elements, rather than models producing high levels of "waste" that then become dangerous pollutants of air, soil and water. This is often defined in terms of combining population, capital, and technology to provide adequate living standards for all; the usage rates of renewable resources does not exceed their regeneration rates; the usage rate of non-renewable resources does not exceed the rate at which substitutes are developed; and pollutants generated remain within the environment's ability to assimilate.

Sustainable Transport Modes In line with the previous definition, the main sustainable transport modes are generally considered to be walking, cycling and public transport, although some researchers, such as Richard Gilbert (Toronto, http://www.richardgilbert.ca) argue that animal traction will regain importance in many countries as part of sustainable transport strategies.

Sustainable transport A sustainable transportation system is one that
(a) allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations;
(b) is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy;
(c) limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise (Toronto Centre for Sustainability).

Sustainable In reference to resource use, *Sustainable* describes a method of harvesting or using a resource so that resource is not depleted or permanently damaged; *Sustainable business* refers to a business that provides goods and services, and/or has incorporated into its daily operations practices that result in cleaner air and water, less waste and pollution, conservation of energy and natural resources, less traffic, improved quality of life for residents and workers, and a stronger and more viable local economy; *Sustainable community/city*: a community or city that meets its present needs without sacrificing the ability of future generations to meet their own needs. More specifically, a sustainable community is one that improves and enhances its natural, social and economic resources in ways that allow current and future members of the community to lead healthy, productive and satisfying lives. (From the Sustainable City Plan, Santa Monica, California, US http://www.smgov.net/epd/scp/glossary.htm).

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1.1.1 Paradigm shift in traffic and transport policies

The response was a conscious search for innovative policies that could meet these new challenges. Perhaps the most striking example was the Dutch "woonerf" or "home zone": a residential street designed to keep cars moving at a walking pace, thus giving priority to these places as habitat, rather than as corridors.

The Dutch, the Danes and other pioneers learned that the best approach was to pay attention to all modes when developing transport policies and planning access in their cities.

By 1975, the Dutch had begun to create Traffic Circulation Plans for cities, which pay equal attention to all transport modes, particularly where improving road safety is crucial. Redesigning urban space policy in this sense is a regularly recurring subject, particularly since these plans strive to integrate all transport modes. Cities began to attract people again, while figures for road accidents fell 75% and cycling's share of trips rose steadily, to average 27%[1] of all trips. In several cities this share is even higher: 38%[2], for example in the city of Zwolle. Within the city ring road of the city of Groningen the bicycle share is 50%.

Already now an important lesson can be drawn from the European experience:

For those cities in developing countries that still enjoy a reasonably high share of cycling and walking trips, but poised on the brink of massive private car use, we recommend policies to preserve existing facilities and invest in additional measures for cyclists and pedestrians. Indeed, this is what distinguishes the Netherlands and Denmark from other European and North American countries: they managed to introduce these measures before all cycling had disappeared. Policies should aim to enhance cycling and walking and to minimize the harm to urban and natural environments from excessive reliance on the private car. If cycling is neglected, as happened in other European cities, it can take a long time to correct this mistake.

[1] Mobility study AVV, The Netherlands, 2005.
[2] CBS, The Netherlands, 2003.

1.2 The Netherlands: more than 30 years of cycling-friendly measures

In 1976, when the Netherlands' national government started to stimulate and finance cycle infrastructure in cities (through cycle paths, lanes and parking facilities), cycling was still a popular transport mode. The government therefore sought to ensure that provinces (regions) were able to build separate cycle paths along regional roads with through-going traffic. Moreover, it made funding available for experimental projects.

In cities, planners moved toward a more holistic and integrated approach to traffic and transport, treating cycling as an important ingredient in the mix. Since the 1970s, the generally accepted policy has been to develop traffic circulation plans that give priority to all road users and strive to improve road safety.

In the 1990s, the national government applied a Bicycle Master Plan within the National Mobility Plan, targeting local authorities as key

players and putting a lot of effort into facilitating pro-cycling policies. As a result, nowadays virtually all city governments have a genuine cycling-inclusive urban transport plans.

Nationally, a Project Team implemented the Bicycle Master Plan, in cooperation with a national bicycle taskforce involving representatives from the government, the bicycle industry and user groups, such as the Fietsersbond (the Dutch cyclists' union). Seminars were organised along with post-graduate and diploma programs. The Project Team's main role has been to develop, exchange and ensure knowledge circulates.

In the framework of the Bicycle Master Plan, regional governments created project groups to exchange knowledge at the technical, community and user-group levels. Politicians met regularly to discuss the cost-benefits of their proposed cycle and other transport projects. These debates built consensus around which projects should be financed.

During this period, the Netherlands invested € 400 million to improve cycling conditions. With experience came greater integration and cycling projects began to fit seamlessly into municipalities' overall traffic and transport policies. Increasingly they involved more than infrastructure, including cycling promotion within company and organisations' travel plans (cycling to work campaigns) and public transport combined with cycling.

This effort achieved its goal: cycling policy and projects became an integral part of mainstream

Box 2: Measures to improve the quality of life — and local economies

In the 1970s, more and more European cities woke up to the fact that soaring use of private cars threatened the liveability of their cities.

Today, many have achieved attractive city centres, providing reasonable access to public transport users, cyclists, motorists, pedestrians and other vehicles. Restrictions on motorized traffic flows and parking policies are the norm, not the exception. Conditions favour public transport and cycling. And city centres have been redesigned to focus on pedestrian areas and, increasingly, to include the differently abled (people in wheel chairs or with different mobility needs, children, the elderly, women, and so on).

This policy has proven successful in terms of social and economic development too. From shopkeepers to transport companies, politicians, engineers, civil society organisations and other stakeholders: all want these policies to continue, encouraging cities to speed up efforts to improve the urban environment.

urban transport planning. Studies generated vital data. Cyclists became part of analysing needs, proposing solutions and testing measures and designs, strengthening both their quality and the likelihood of their success.

Dutch experience teaches us that facilitating cycling-inclusive policy development and implementation is vital to success. Involving politicians, from the Minister of Transport through local municipal politicians, is essential. Participation from other politicians, engineers, citizens, current and potential bicycle users is equally important. The Netherlands' example has inspired other European (and developing) countries to learn from the Bicycle Master Plan.

1.3 All kinds of people must cooperate to build a shared vision

Building a shared vision is crucial to turning today's grimy, noisy, smelly cities into healthier and happier cities for people. The Cities for Mobility international network[3] strives to identify all the ways of achieving sustainable mobility. This is defined as mobility that is accessible to all citizens, environmentally friendly and economically viable. A clear, explicit vision like this offers essential guidance for future projects.

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[3] http://www.cities-for-mobility.org

Box 3: Copenhagen

The capital of Denmark, Copenhagen has pioneered the concept of *cities for people*. Attractive and lively, despite a harsh climate, tourists flock to enjoy the city. Twenty percent of all commutes are by bicycle. During the Velocity 2007 conference, Copenhagen's mayor announced that boosting bicycle use even further was key to continuing to ensure that Copenhagen is genuinely a *city for people*.

Having a strong sense of where you want to go helps to avoid problems, set clear goals, define the type of organisation you need, find funding and apply the right planning measures.

But having a vision is not strictly necessary to carry out a successful (bicycle) plan. A city can simply start with a small project. Then it is important to evaluate your project, learn from it and scale it up. Step by step, you can create the city you want to live in.

International networks, conferences and such can stimulate planners, advocates and other process leaders to analyse results from early cycling measures in considerable detail, to publish their results and to discuss them at congresses. To teach is to learn more about your own situation. You wake up to what's

Figure 3
Cities such as Bogotá (Colombia) have successfully adapted concepts of sustainable transport and cycling-inclusive policies from the Netherlands and Europe and improved people's lifestyles while also improving transport quality.

Photo by Shreya Gadepalli

happening in your own city. This all will help to set course for the transformation of cities into places where people are put first and where quality of life will not be sacrificed to the ever increasing demand for space for motorized private transport.

1.4 Learning and building better cities is an ongoing process

Making cities more attractive is an ongoing process and cities all over the world can learn a lot from each other. There are so many lessons from the past and from our contemporaries.

This handbook is based primarily, but not only, on European and specifically Dutch experience with developing cycling policies, enriched by best practices in cities all over the world. It offers information on a wide range of aspects to be considered when developing a cycling policy. But every situation is different and will require its own approach.

We hope this information will help you respond with the latest information on best (and worst!) practices at your fingertips.
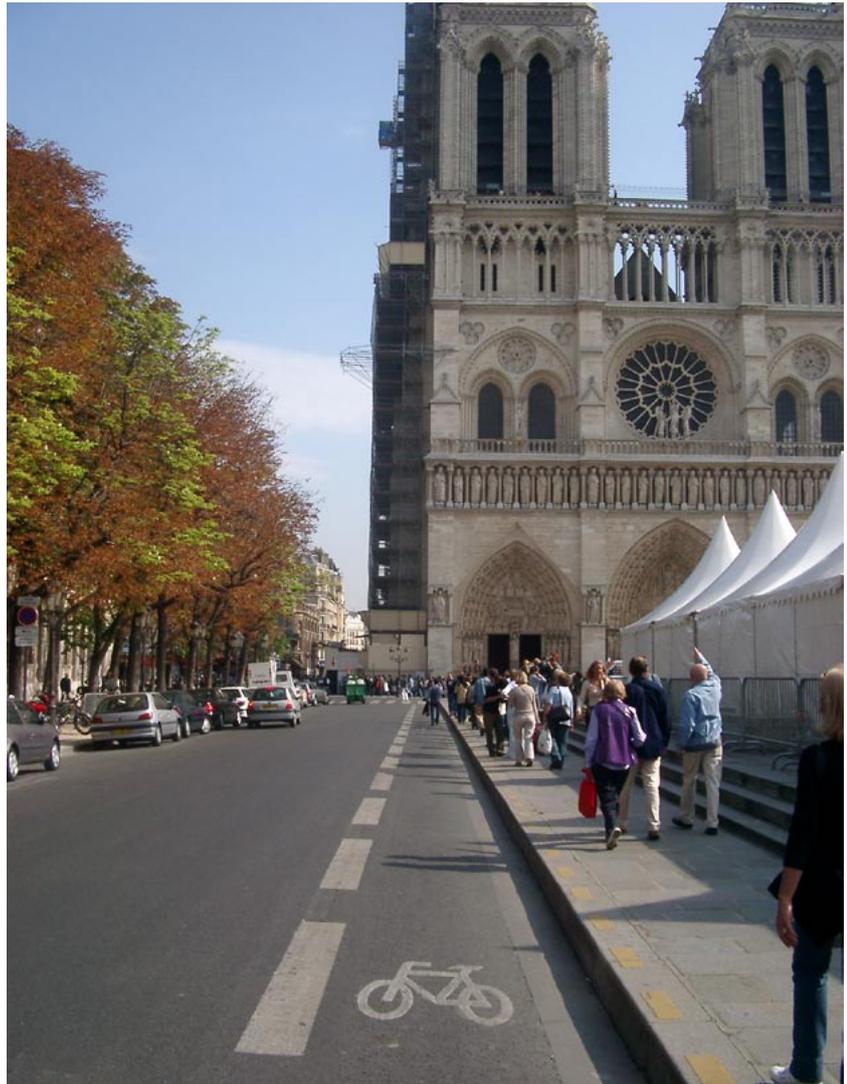
Figure 4
Bicycle lane at Notre Dame, in the heart of Paris, France. The municipality has promoted cycling since citizens took to their bikes amidst a prolonged public transport strike in 1990s and after a study showed the severe health effects from air pollution caused by motorized transport.
Photo by I-CE, Roelof Wittink

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