A NEW URBAN MOBILITY CONCEPT

GREENPEACE

VISION

A new kind of mobility calls for holistic concepts. With this in mind, Greenpeace teamed up with Gehl Urban Quality Consultants and set out to create an overall strategy. The aim was - and is - to enhance mobility and quality of life in those parts of Germany where most of the population lives, namely in urban areas. In the coming years, the concept presented here will guide Greenpeace Germany's strategies in the field of sustainable, urban mobility.

Specifically, the mobility envisaged by Greenpeace consists of four elements:

o Reducing dependency on cars

o Improving sustainable alternative modes (public transport, cycling, walking)

o Using available space in more efficient ways

o Creating highly accessible urban hubs that offer space for homes, workplaces, shops and
   the enjoyment of life

Schemes to avoid traffic and to channel it along different routes point the way to a new kind of mobility.

1 GERMANY - CHALLENGES AND TARGETS

Green mobility is an important milestone on the road to reducing greenhouse gas emissions. In Germany, motorized traffic is responsible for some 20 per cent of all carbon dioxide emissions. Green mobility not only makes sense in terms of protecting the environment, but it can also deliver huge social and economic benefits. Action is urgently required.

2 THE CITY - 6 PRINCIPLES

Green mobility is a key element of any attempt to create sustainable cities - even if only on account of its contribution to a better quality of life. However, it will take collaboration between many different disciplines to build a high-quality mobility network. This publication presents six examples of what has worked in practice and they will, so we hope, inspire Germany's towns and cities to take immediate action.

3 OVER TO YOU - INSTRUMENTS OF CHANGE

Green mobility leads to a healthier life. It offers you the chance to take simple decisions that have a big effect and benefit you as well as the environment and society at large. The way ahead starts at your doorstep. Therefore, at the end of this publication, you will find tools to help you analyze your daily movements. Why not enter into a dialogue with your city and play your part in reducing Germany's carbon emissions? You can thus help to establish a new culture of green mobility.

Knowledge and action

```
GERMANY        GERMANY

YOUR TOWN      YOUR TOWN

YOU            YOU
```

In these pages you can find how the new, green mobility affects our planet, our towns and cities, and you personally. We also hope it will encourage you to start making a difference. Take a critical look at your daily journeys. What transport options are available? What does your town have in the way of a green mobility network? What can you do to help reduce Germany's carbon footprint?

PEOPLE TAKE THEIR OWN MOBILITY DECISIONS

The key to green mobility is to understand people and how they behave. Because green behaviour is about our personal lifestyle choices. It is about the way we organize our daily lives and how our decisions depend on circumstances. We choose the simple, easy courses of action. Only very few of us are idealists who always, whatever the circumstances, do "the right thing". Therefore, cities need to be designed so that the "right" decision is the "easiest and most convenient" option.
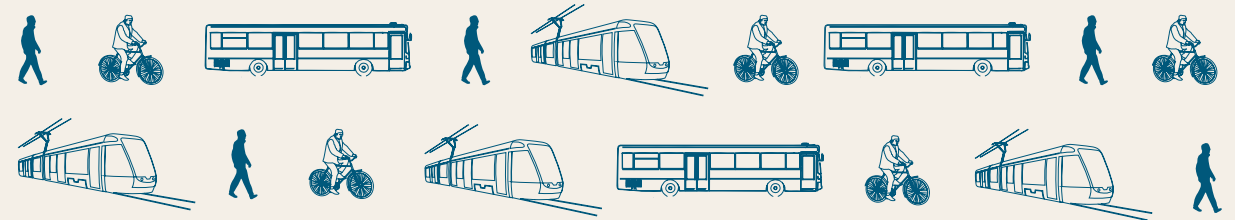
In the case of mobility, it is above all a question of giving people a choice.

Where mobility is concerned, carbon emissions and people's behaviour are crucial

- 20% Trade & Industry
- 40% Power generation
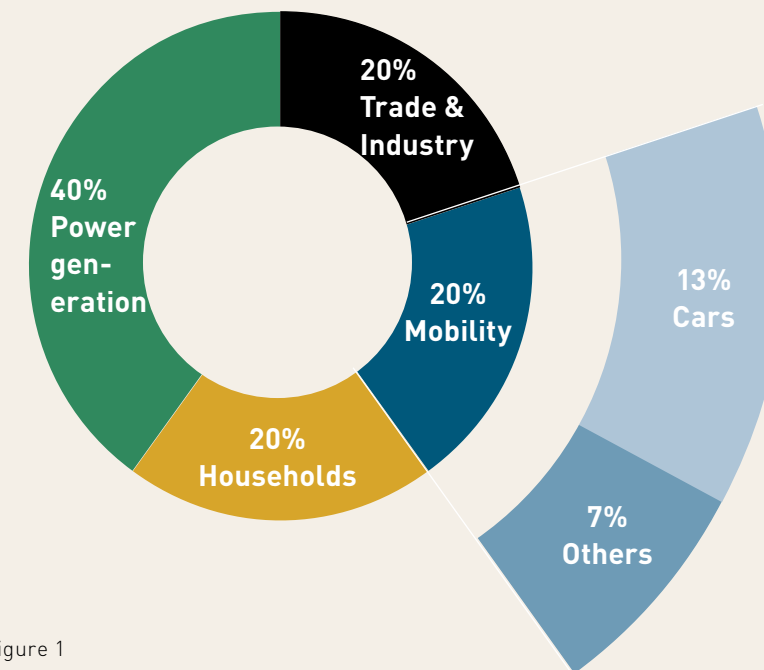- 20% Mobility
- 20% Households
- 13% Cars
- 7% Others

Figure 1

Transport accounts for nearly a quarter of all greenhouse gas emissions in Germany. Changing how we meet our daily mobility needs thus directly impacts the overall volume of carbon emitted. In no other sphere do our personal decisions have such far-reaching effects as those we take regarding mobility and consumption. But mobility differs from consumption in that many people would consider altering their consumption patterns tantamount to lowering their quality of life. This is not true of mobility: here a change in behaviour can actually enhance the quality of life.

GREEN MOBILITY UNDERSTANDS ITS USERS

About 98 per cent of the people who use public transport in Scandinavian cities start their journey on foot or on a bike. Even in rural districts, 90 per cent walk or cycle part of the way. Basically, this recognizes an obvious fact: once someone has got into their car, they are going to stay in the car. So if we want to encourage people to use public transport we must improve the situation for pedestrians and cyclists and make the choice an easy one.
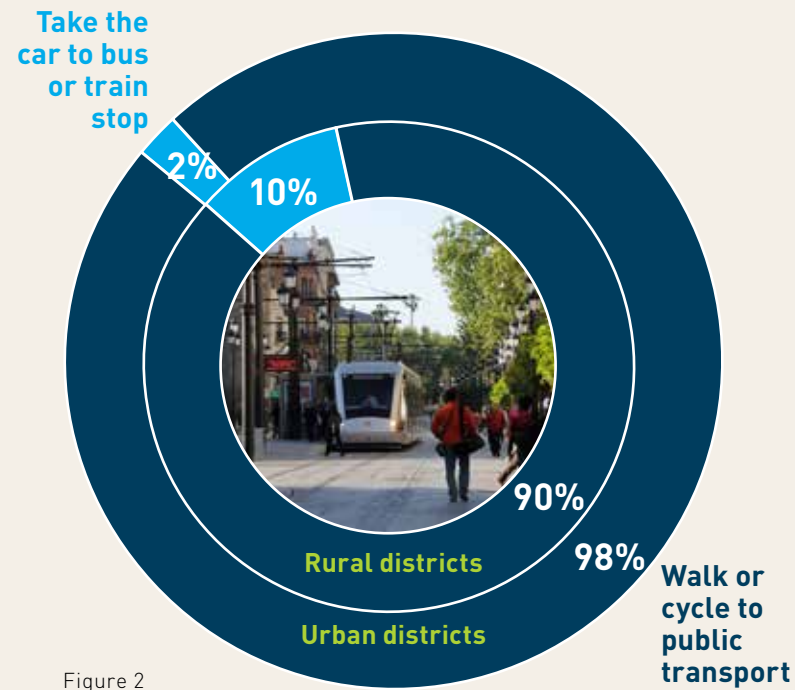
Take the car to bus or train stop

2%

10%

90%

98% Walk or cycle to public transport

Rural districts

Urban districts

Figure 2

GREEN MOBILITY MAKES LIFE EASIER

Copenhagen is world-famous for its masses of cyclists. When asked why they cycle, few people cite health or the environment - these are welcome, but secondary benefits. About 63 per cent of Copenhagen's cyclists use a bike because it is easy, fast and convenient. When we offer people the chance to do something good without too much effort, we hold the key to changing their behaviour. But we need integrated schemes that have been thought through properly.
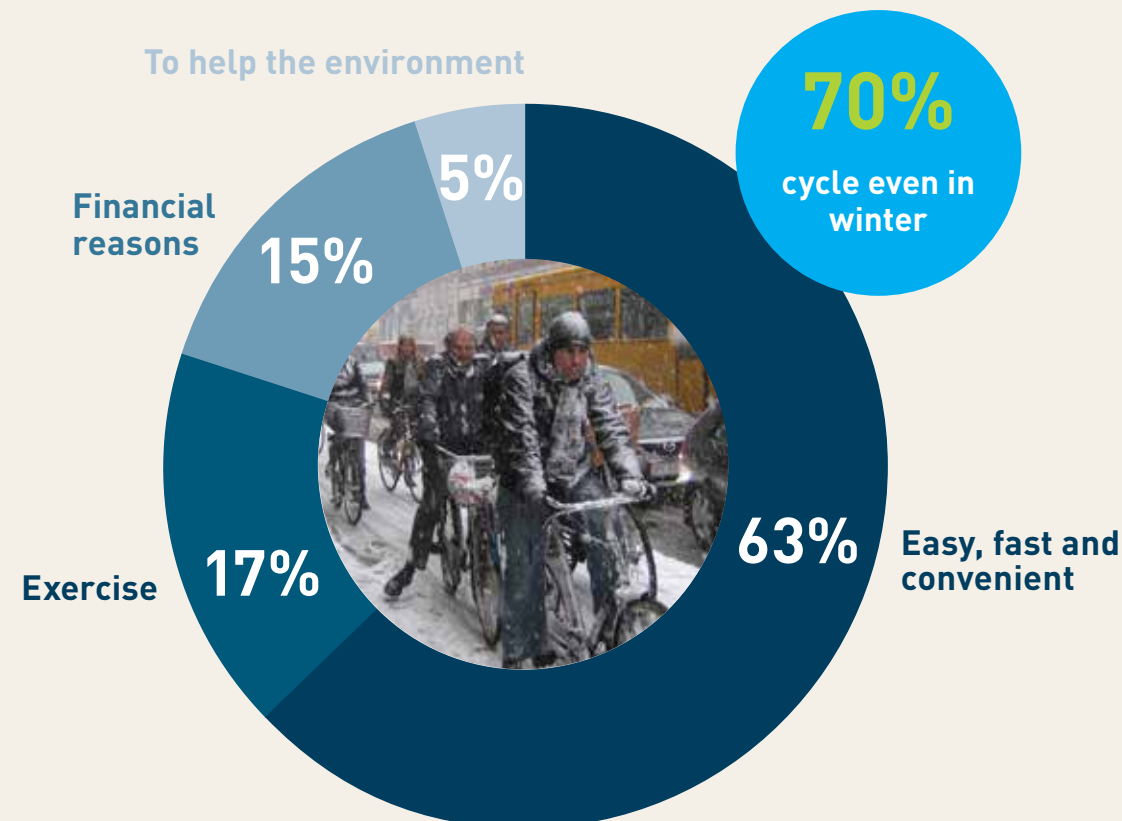
To help the environment

70% cycle even in winter

Financial reasons

5%

15%

17% Exercise

63% Easy, fast and convenient

Figure 3: Why do people cycle in Copenhagen?

Green mobility

Safe and invigorating

Quality of life

Affordable and efficient

Healthy

Environment friendly

Inclusive and attractive

A WIN-WIN SITUATION

Mobility must go green

Even if the amount of CO_2 in the air from car exhausts gradually lessens, these emissions are still far higher than those caused by walking, cycling and travelling by public transport. And every decision to take the car makes it more difficult for public transport companies to attain the number of users needed to support an efficient network. This is especially true in more rural areas, but the effects are significant in every part of the country. Above all, children and senior citizens are often obliged to get from A to B without using a car.

If we want a greener lifestyle, mobility is a good starting point for rapid results. A simple example will illustrate what is meant here: a typical office building located close to good public transport services saves five times as much carbon per employee as a zero-emissions house that can only be reached by car. Of course that does not alter the fact that we need better mobility as well as sustainable systems for buildings.
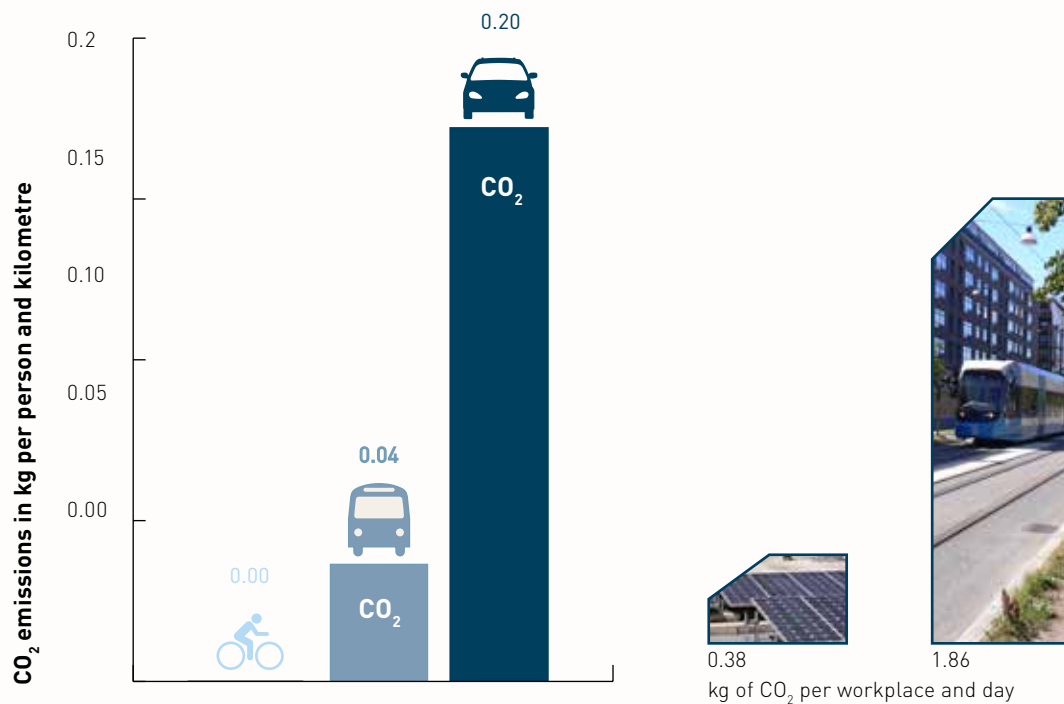

Figure 4

0.38   1.86

kg of CO_2 per workplace and day

Figure 5: Savings by switching from a standard to a zero-emissions office building compared with savings obtainable by ensuring good public transport services to a standard office building

Target

Reduce CO_2 emissions by using integrated public transport services.

Green mobility is better for health

Today, people in the USA and Europe spend more and more time indoors and engage in less physical activity than ever before. In recent years there has been a dramatic increase in obesity and chronic diseases. Thirty minutes a day spent cycling or walking has proven to have positive health effects. Using the daily journey to work as an opportunity for exercise improves health and significantly lowers the risk of becoming obese.

"ACTIVE PEOPLE LIVE LONGER"

2 X 30 MINUTES PHYSICAL EXERCISE A DAY = 7 EXTRA YEARS OF LIFE

30%

LOWER MORTALITY RATE FOR ADULTS WHO CYCLE TO AND FROM WORK EACH DAY

IN COPENHAGEN THE ANNUAL HEALTH BENEFIT OF CYCLING IS ESTIMATED TO BE MORE THAN
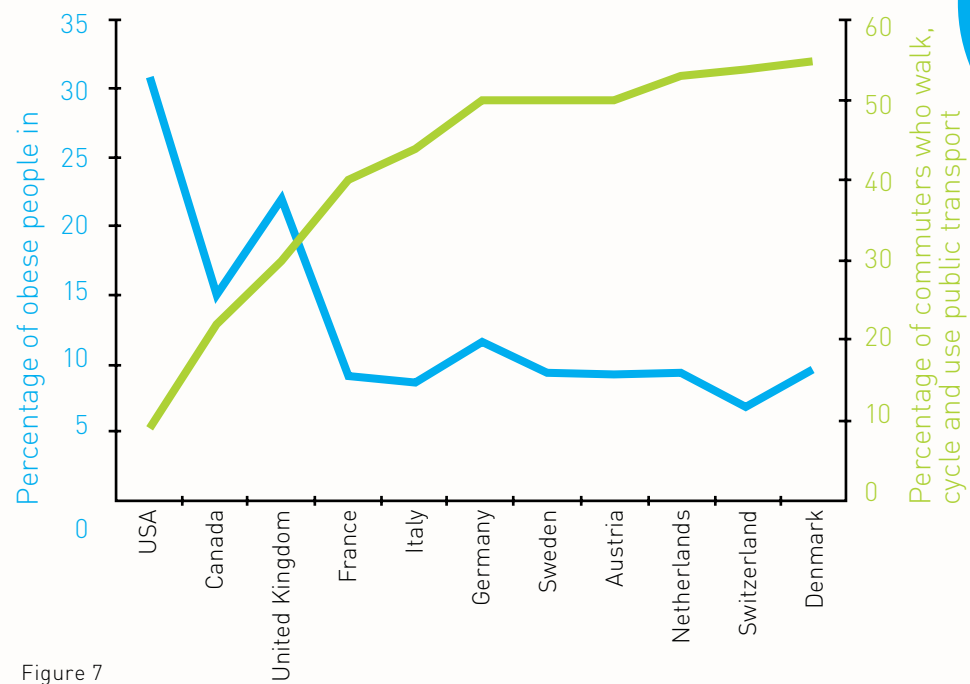
228 Mio. €

Figure 6

Figure 7

Target

Increase the number of people who are actively mobile, e.g. who walk or cycle.

Green mobility is affordable and efficient

Every kilometre travelled by car costs Copenhagen money. Every kilometre travelled by bike saves the city money. Not only does that have something to do with the fact that it costs less to build and maintain the infrastructure for pedestrians and cyclists; savings thanks to fewer traffic hold-ups, illnesses and accidents, and less environmental pollution are also included in the calculation.
And of course local shops and businesses reap the economic benefits of an easily accessible, mobile city.
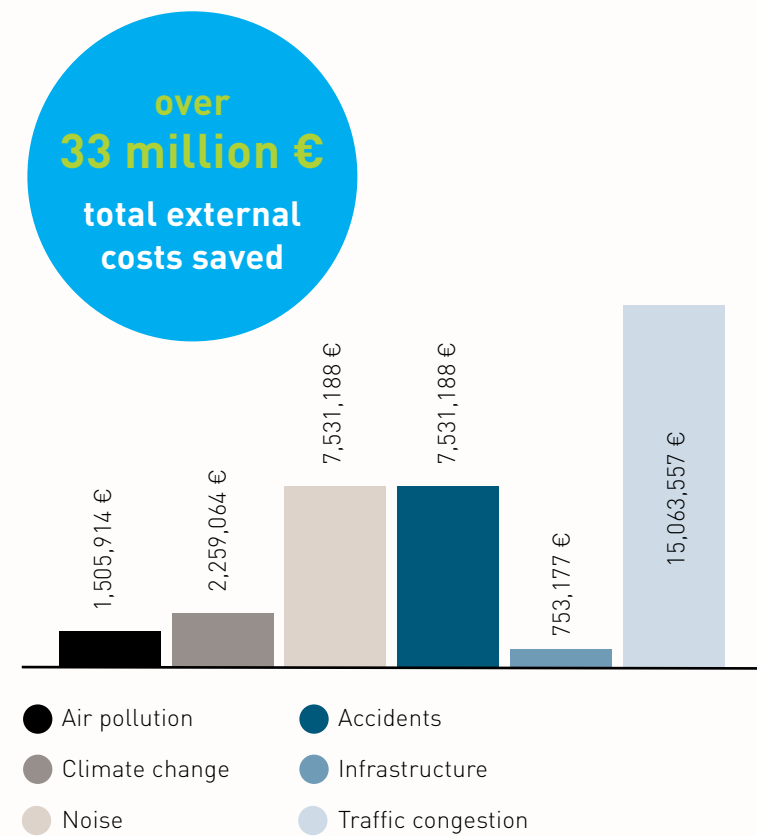
over
33 million €

total external costs saved

1,505,914 €
2,259,064 €
7,531,188 €
7,531,188 €
753,177 €
15,063,557 €

● Air pollution
● Climate change
● Noise
● Accidents
● Infrastructure
● Traffic congestion

Figure 8: Estimated external costs saved by switching from car to bike (data from the City of Copenhagen for the period from 1995 to 2010)

+0.16 €

1.5
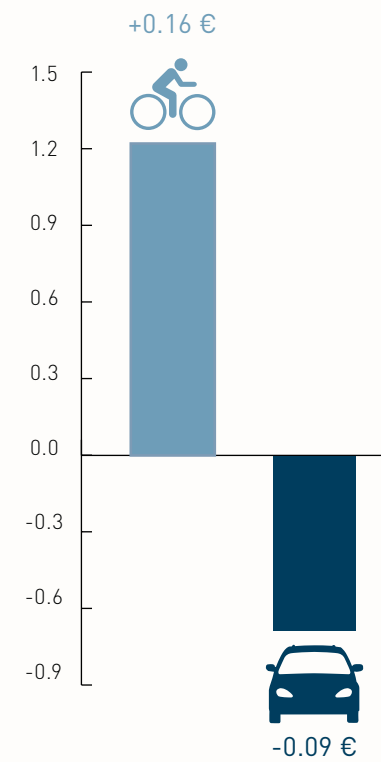1.2
0.9
0.6
0.3
0.0
-0.3
-0.6
-0.9

-0.09 €

Figure 9: Social savings / costs per kilometre, taking into account transport costs, safety, practicality, branding, tourism, journey times and health
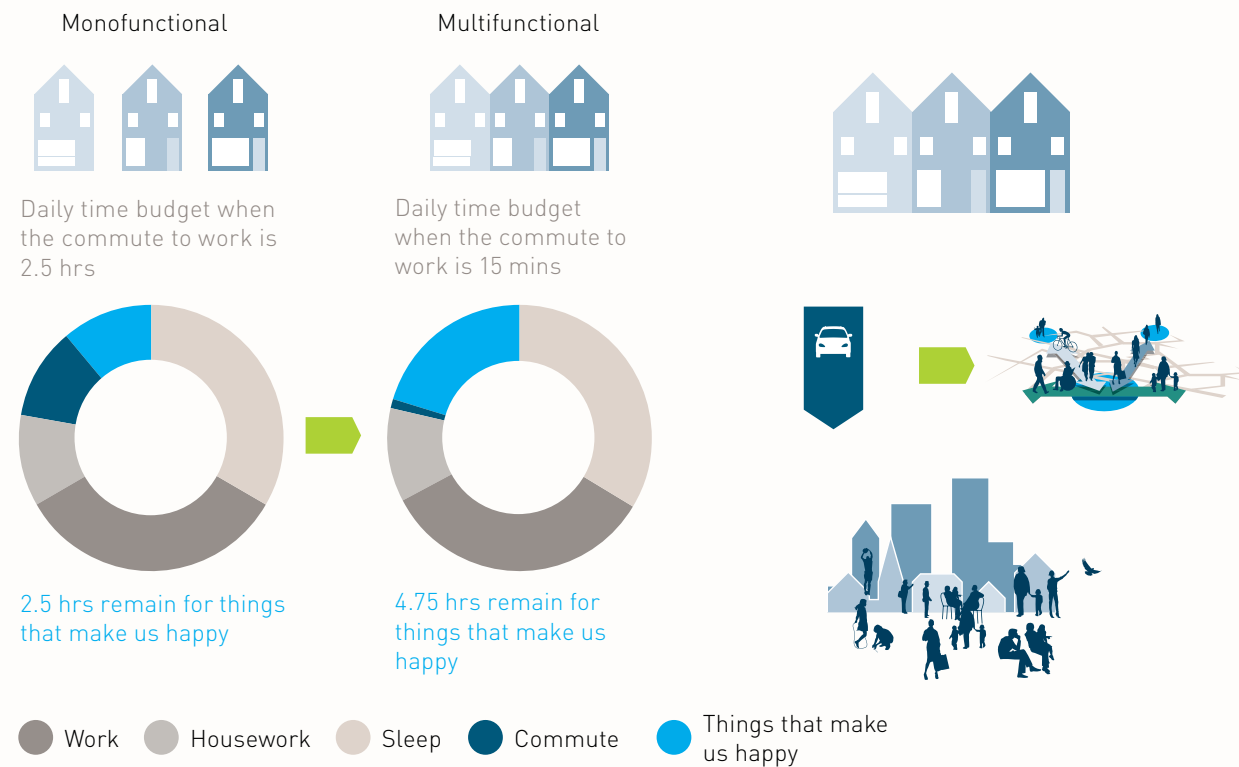
Target

Green mobility must be affordable and stand out as a model of the sensible and efficient use deployment of local government funds.

Green mobility for a better quality of life

Our cities are often such low-density, monotonously functional creations that we have come to accept longer commutes and thus less time for the things that make us happy. A city with more mixed-use districts leads to shorter commutes. In existing cities we can utilize what experience teaches us about the efficiency of the road network. Major, central places in the city must be linked together by a high-quality network of footpaths, cycle tracks and local transport systems. This is the only way to create an environment in which pleasure, meeting other people and recreation become a natural part of getting around the city.

Monofunctional

Multifunctional

Daily time budget when the commute to work is 2.5 hrs

Daily time budget when the commute to work is 15 mins

2.5 hrs remain for things that make us happy

4.75 hrs remain for things that make us happy

● Work ● Housework ● Sleep ● Commute ● Things that make us happy

Target

Spend more time with friends and family instead of in traffic jams.

Green mobility stands for a safe yet vibrant city

To develop safe, vibrant neighbourhoods is a challenging task. As the city continues to eat into large parts of its surrounding areas, people risk becoming physically and mentally isolated.
Alternative modes of transport and options for actively bridging the distance from A to B become increasingly unimportant. An added problem is that people now live more private and secluded lives. This makes it more challenging to create an environment that fosters social interaction. An active city is also a safer city, because on busy streets we can keep an eye on what is happening to our fellow beings.

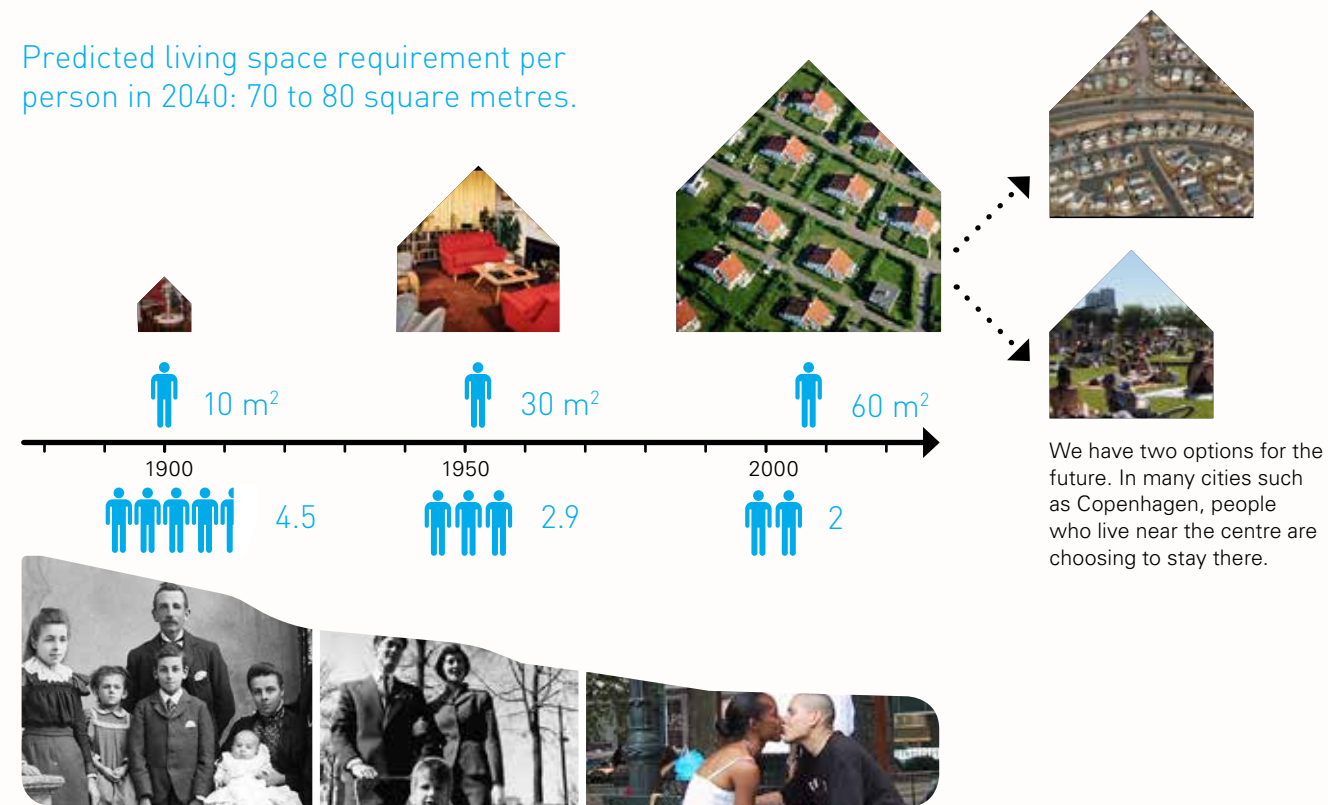Predicted living space requirement per person in 2040: 70 to 80 square metres.

10 m²   30 m²   60 m²

1900   1950   2000

4.5   2.9   2

We have two options for the future. In many cities such as Copenhagen, people who live near the centre are choosing to stay there.

Figure 11: Average living space per person

Target

Build in more compact architectural styles to facilitate green mobility and make the environment safer.

Green mobility makes the city attractive – for everyone

Quality of life has become the new benchmark in the global competition to attract businesses and workers. Livable cities are those that pulsate with life and open up possibilities. An attractive city offers us the freedom to choose from a generous selection of different activities in public space.
To create an inviting urban environment that people want to use, we need good-quality public spaces that are easily accessed with green transport. This makes it easy for people to participate in public life and to play a part in making the city vibrant and livable.

1950 to present day:
The invasion of cars

1960 to present day:
Public urban spaces
Pedestrian zones
Areas with low traffic

Active

Essential activities must be undertaken regardless of whether they are attractive or not

Elective activities happen only if they offer the desired quality

Passive

1900	1950		2000

1961
Jane Jacobs,
The Death and Life of Great American Cities

1971
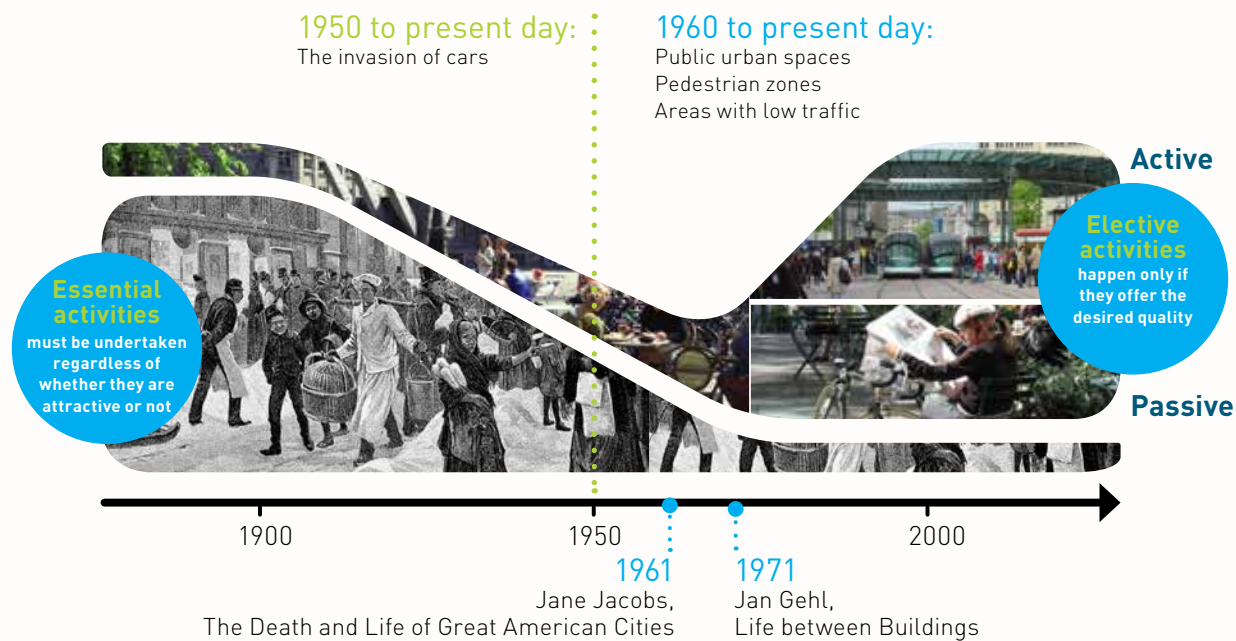Jan Gehl,
Life between Buildings

Figure 12: The diagram illustrates the shifting relationship between essential and elective activities over the past 100 years. Note the growth of car ownership in the 1950s and the current trend towards creating open spaces for public life.

Target

Create more attractions that appeal to everyone and make the city more inclusive.
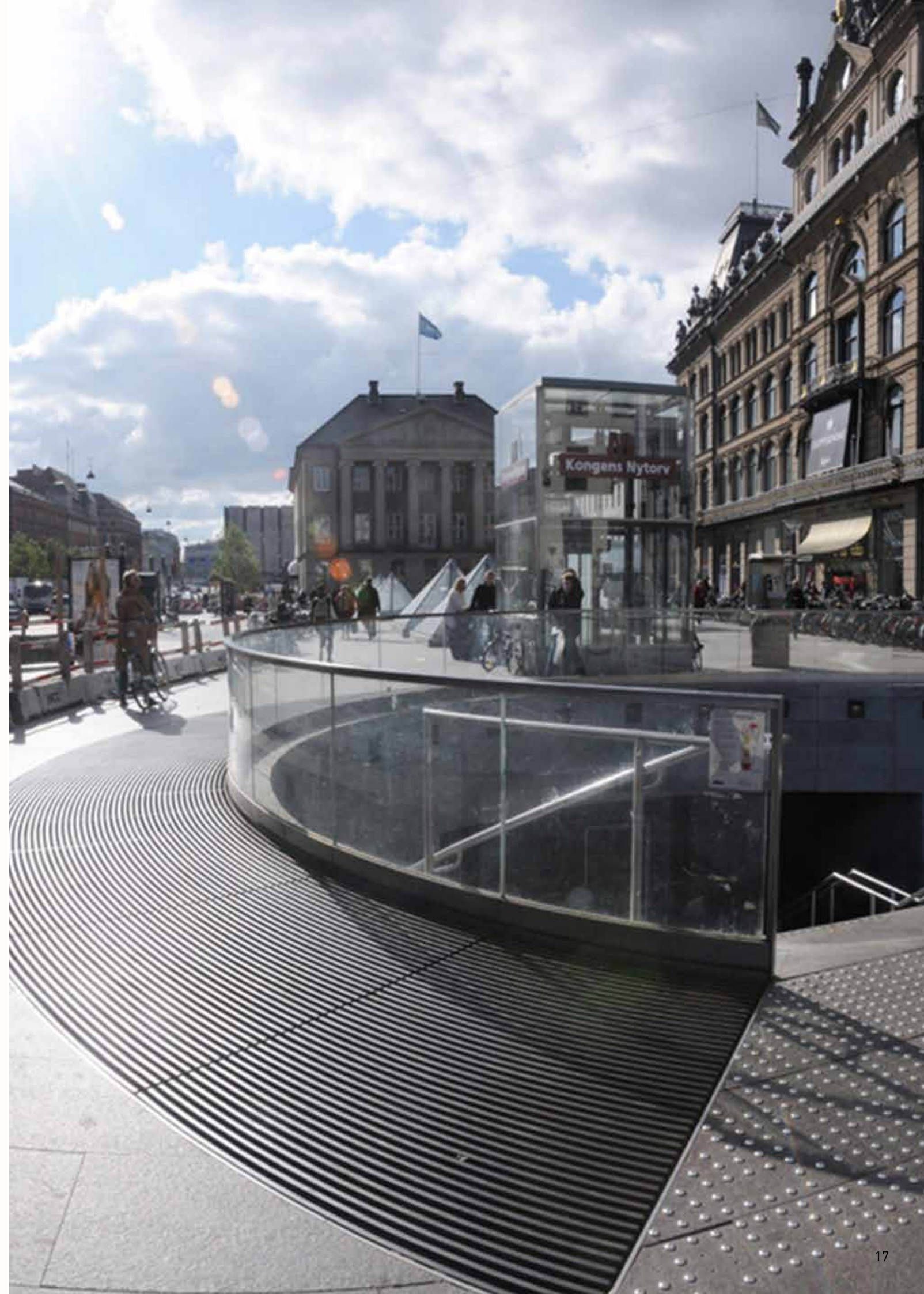
6 PRINCIPLES FOR CITIES

If an assessment is to be made regarding how "green" the mobility within a city is, many different factors need to be considered. The most important step is to evaluate both the special challenges facing a city and its specific potential, and draw the appropriate conclusions. This guide offers important, core principles that can help a city to boost its standing as a platform for green mobility. There is no single answer that is right for every case as local circumstances must determine the approach chosen.

PROXIMITY

. MIXED USE

. DIVERSITY

. DENSITY

CONVENIENCE

. ACCESSIBLE

. COMPREHENSIBLE

. SMART

CONNECTIONS

. CONTINUOUS

. INTEGRATED

. BALANCED

ENJOYMENT
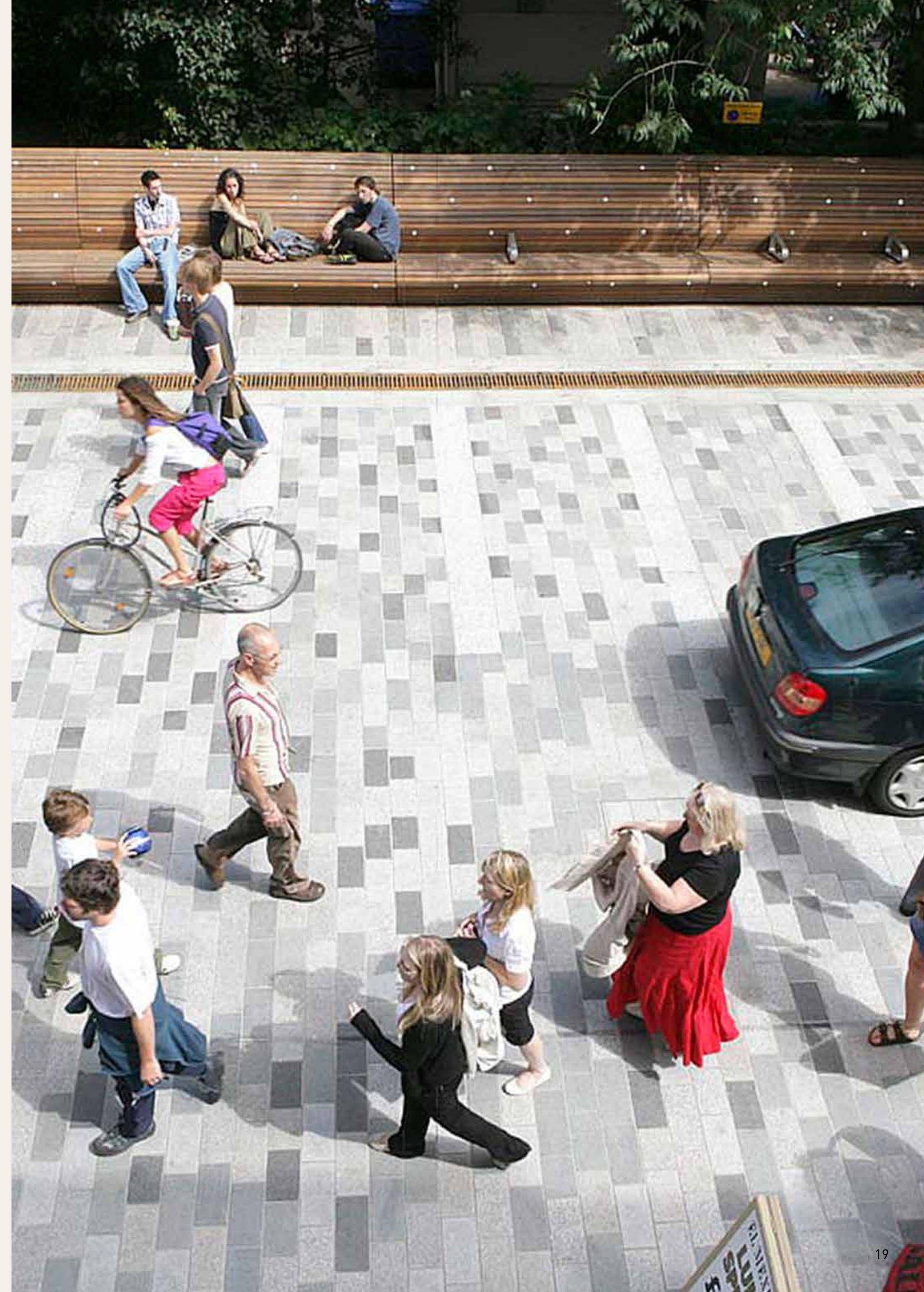
. ON A HUMAN SCALE

. IDENTITY

. RECREATION

SAFETY

. PROTECTED

. SAFE

. HEALTHY

CULTURE

. EDUCATION AND COMMUNICATION

. POLITICAL SUPPORT

. COMMITMENT

PROXIMITY

Walkable, cycle-friendly urban districts that offer a good environment for public transport will not emerge unless the places people want to get to are brought closer together. Cities must ensure that train, tram or bus stops, leisure pursuits, homes, workplaces and the amenities people require on a daily basis are as close together as possible.
The closer these places are to each other, the less time people need to spend commuting or travelling further afield.
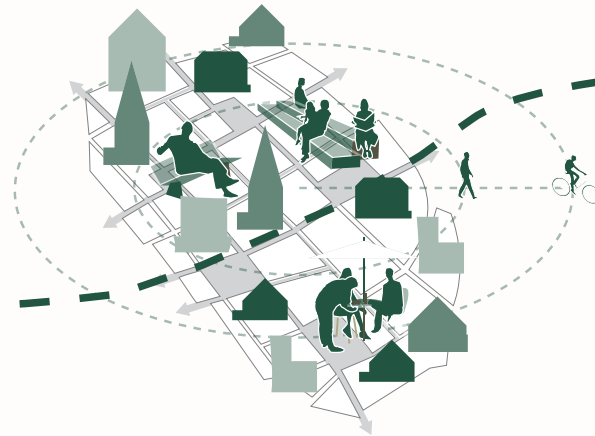
With the growing diversity of individual lifestyles and obvious demographic changes, society now demands increasing degrees of flexibility and choice. Neighbourhoods must be designed to accommodate a mix of various functions and services for all age groups.

MIXED USE

- A mix of functions within one area: homes, commerce and workplaces
- Group the places serving daily needs in close proximity
- Bring together functions that can mutually support each other
- A mix of leisure facilities and services within walking or cycling distance

DIVERSITY

- A large number of homes of varying sizes and price categories (to buy or rent), as well as workplaces for the self-employed and firms providing jobs, generate a diverse community of users
- The surroundings should be attractive and diversified
- A range of different possibilities and options for using public space attracts a variety of users

POPULATION DENSITY

- Greater density and finely meshed networks create greater proximity between the various functions of the city
- In this case, density must be high enough to support local transport and open up opportunities for new interconnecting nodes between public transport routes
- New projects should be planned close to existing transport networks
- Appropriate infill measures create vibrant neighbourhoods where daily needs can be met within walking or biking distance
- Instead of allowing more urban sprawl, the gaps in existing areas should be closed

IN 2002 THERE WERE MORE THEN
33 TIMES
AS MANY APARTMENTS AS IN 1982

The resident population in downtown Melbourne increased several times over when apartment blocks were added to the existing built environment, thereby creating a mixed-use city centre.

Opening up small alleyways in Melbourne resulted in greater accessibility and proximity and created a finely meshed network of streets. At the same time, urban space was freed up for a wider range of uses such as small businesses and other facilities.

Recent surveys of Melbourne show that the population could be doubled within the existing city limits simply if the city were to infill only around the existing public transport infrastructure and nowhere else.

BEST PRACTICE — Melbourne, Australia

Over the past 30 years, Melbourne has been working to transform its city centre - moving away from the single-use, car-dominated past to today's vibrant, mixed-use inner city. It is a place where people live, work and enjoy a variety of pursuits, both during the daytime and at night, on weekdays and at weekends. Walking has become a key element of daily routines and the public space is full of life every day and at any time.

CHOICE OF TRANSPORT MODE

- 38%
- 36%
- 17%
- 9%
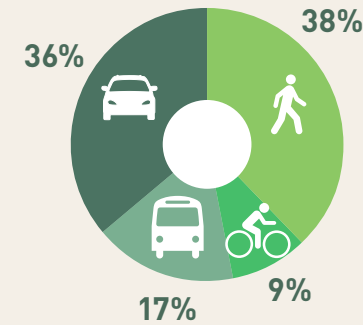
FACTS
Area of city centre:
3.02 km^2
population: 9,375
(2002)
4.35 million
live in the greater
metropolitan area

Views into and out of the space

Sense of security generated by surroundings built on a human scale

Active use of buildings' ground floors

Proximity to public transport

Diverse functions

Interesting and varied environment

Many access points

Activities spill over into public space

Attractions within walking distance

Figure 13

- Retail shops
- Food and beverages
- Street cafés
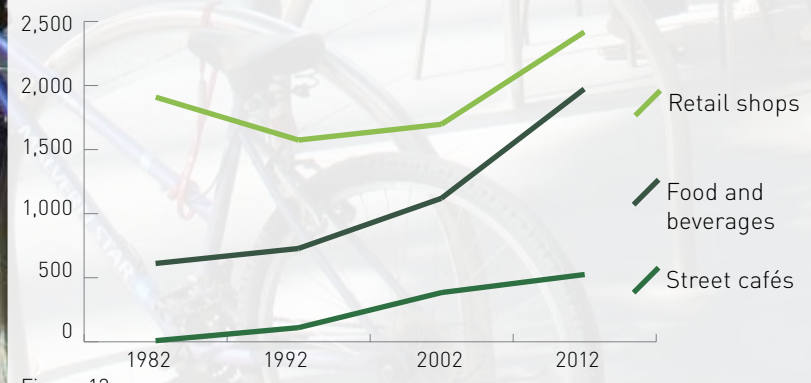
830%
MORE RESIDENTS
1992 – 2002

300%
MORE BUSINESSES
1982 – 2012

CONNECTIONS

If mobility is to become greener, pedestrians and cyclists must be provided with a continuous network of direct routes that link central points such as transport nodes, schools, workplaces and other locations where daily life goes on.
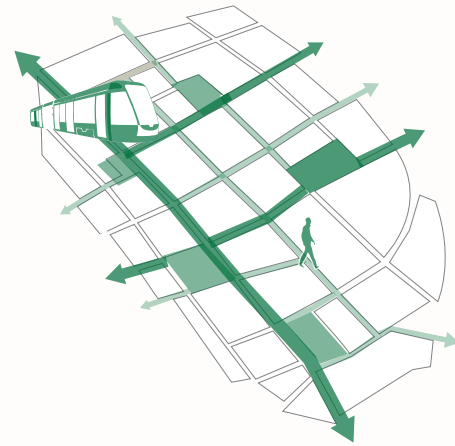
CONTINUOUS

- Infrastructure of continuous barrier-free paths for pedestrians and cyclists
- Network linking central points and everyday destinations
- Close the gaps in the existing infrastructure
- Keep paths of travel short, minimize detours
- Ensure local public transport is efficient and reliable
- Link local and regional networks

INTEGRATED

- Integrate the networks of various transport modes
- Link the transport networks with public spaces and destinations
- Design routes that can be travelled end to end, e.g. as a door-to-door trip using several forms of transport, and make it easy to switch between them
- Link public transport nodes with places where people satisfy their daily needs
- Create attractive, safe nodes with good links between all forms of transport

BALANCED

- Prioritize pedestrians, cyclists and public transport
- Create balanced and fully usable roads with space for traffic of every kind
- Create a "democratic" traffic space where every road user has equal rights
- Make public transport affordable

Copenhagen has 426 kilometres (as at 2012) of continuous, designated cycle tracks with very few gaps. Cyclists and pedestrians have right of way at intersections.

People find it easier to reach their destination if bikes can be taken on buses, railways and local commuter trains. In this way people who live further from the city centre can make their commute greener too.

Copenhagen's roads reflect the way they are actually used - more cycle traffic results in cycle tracks being widened to ensure cyclists' safety and convenience.

BEST PRACTICE — Copenhagen, Denmark

Copenhagen has been working for some time on creating a continuous network for green mobility. A well-defined web of interlinked cycle tracks and convenient, easily accessible pedestrian spaces has been integrated with local and regional public transport. This produces a coherent system of green mobility that prompts people to use their cars less and creates an attractive, inviting city centre that people are happy to visit and spend time in.
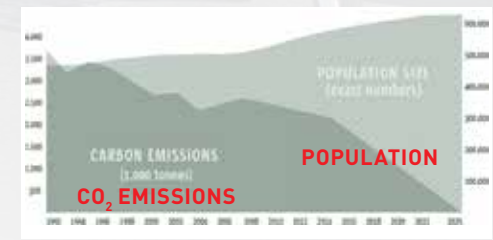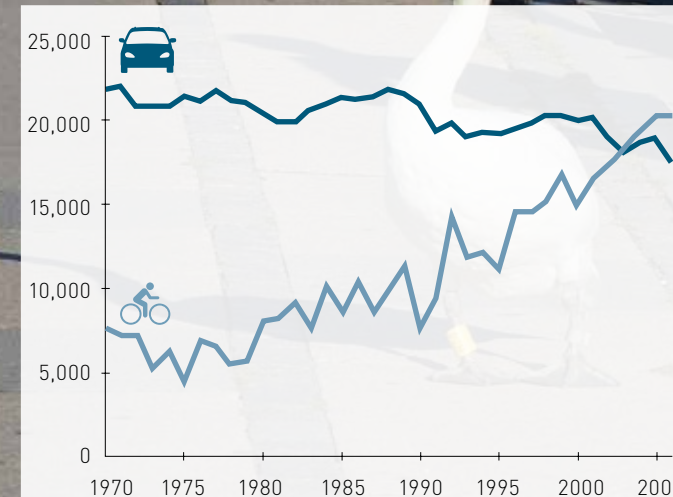
CHOICE OF TRANSPORT MODE

- 4%
- 24%
- 31%
- 41%
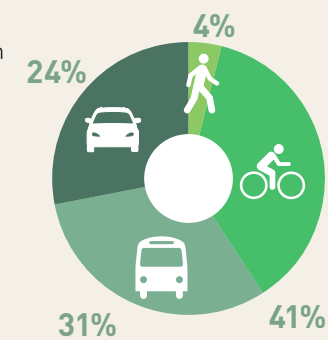
FACTS
Greater central city:
30.25 km^2
population: 299,000
(2012)
98 inhabitants per hectare
1.2 million
live in the greater metropolitan area
(www.dst.dk)

Proximity to public transport

Integrated public transport nodes

Good walking routes connect spaces

Efficient public transport

Short paths of travel

Diversified experiences

REDUCTION IN CO$_2$ EMISSIONS

1995 – 2010

109,586 TONNES

- 41% Copenhagen
- 22% Amsterdam
- 7.4% Berlin
- 7% Stockholm
- 6% Helsinki

Percentage cycling to work in European capitals

CARBON EMISSIONS (1,000 tonnes)

POPULATION (1,000 inhabitants)

CO$_2$ EMISSIONS

POPULATION

SAFETY

New users and people who feel more vulnerable than others are especially attentive to road safety issues. If they feel safe and protected when using green mobility systems, they will make these options part of their daily lives. This in turn increases the likelihood of sustainable mobility becoming more generally accepted.
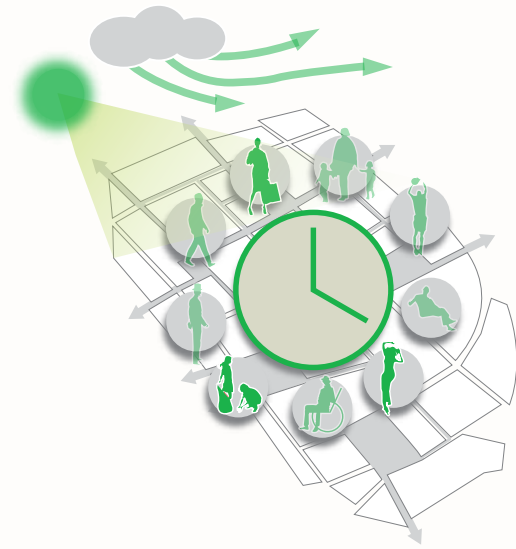
PROTECTION

- Users who feel especially vulnerable need safe paths of travel
- Priority must be given to pathways for pedestrians and cyclists
- Reducing the speed and volume of traffic helps to allay fears
- A safe environment must be developed for road users of every age and skill level
- Safe intersections and crossings for all users
- Establish a code of good conduct on the roads
- Offer clearly separated and defined areas for various types of mobility

SECURITY

- Protect from crime and violence
- Functions should overlap in terms of time and space, so that areas are not deserted at certain times
- Well-lit paths
- Clean and tidy paths
- Cycle tracks and pedestrian paths should be where there is activity
- Creating bustling streets generates security and ensures that people keep an eye on each other
- Safe, alternative night-time routes are required

HEALTH

- Pollution, particulate matter and noise should be minimized where pedestrian paths and cycle tracks are sited
- More and better spaces should be created for physical activity
- Air must be kept clean
- A healthier lifestyle must be made more inviting
- Public spaces should be altered to reflect the local climate and, for example, offer shelter from the rain or areas shaded from the sun

Bridges for pedestrians and cyclists link different areas of the city and create a network of safe routes.
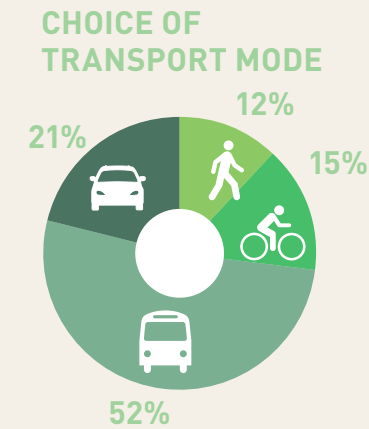
Pedestrian paths and cycle tracks should not only be well-lit: at night, people also feel safer on routes lined with dwellings that overlook the street.

People who want to live a healthy life include physical exercise and time outdoors in their daily routines.
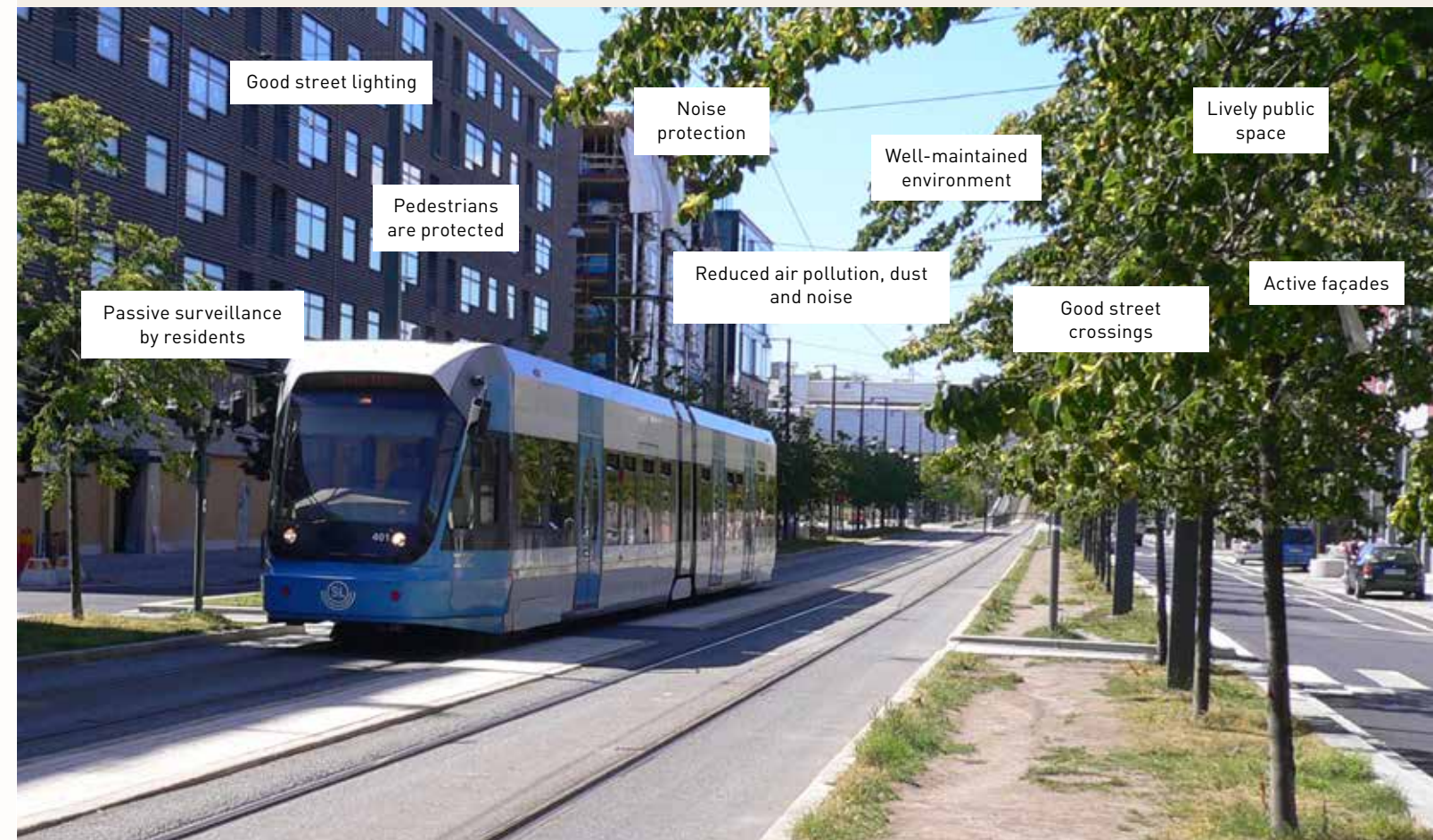

BEST PRACTICE — Hammarby Sjöstad, Sweden

Over the past 15 years the old industrial area of Hammarby Sjöstad in Stockholm has been transformed into a modern, sustainable district of the city. Here, above all along the main street, one finds a mix of owner-occupied and rented apartments, offices and retail units. The result is a district where there is always life. Numerous public paths and cycle tracks offer pedestrians and bike riders a safe environment.
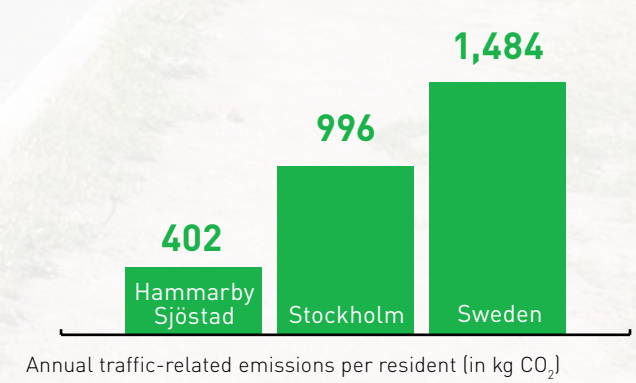
CHOICE OF TRANSPORT MODE

12%
21%
15%
52%

FACTS
Area:
1.3 km²
population: 17,000
(2010)
1,331 inhabitants
per hectare

Good street lighting

Noise protection

Well-maintained environment

Lively public space

Pedestrians are protected

Reduced air pollution, dust and noise

Good street crossings

Active façades

Passive surveillance by residents

79% choose green mobility

21% use car sharing

1,484

996

402

Hammarby Sjöstad

Stockholm

Sweden

Annual traffic-related emissions per resident (in kg CO_2)

CONVENIENCE

How easy and convenient the door-to-door trip is tends to count more than the actual distance. Making mobility greener creates fresh challenges for strategic locations and requires them to be linked well with their surrounding areas. A neighbourhood in which workplaces, services and homes are within easy walking or cycling distance has special value, and is readily accessible to all potential users.
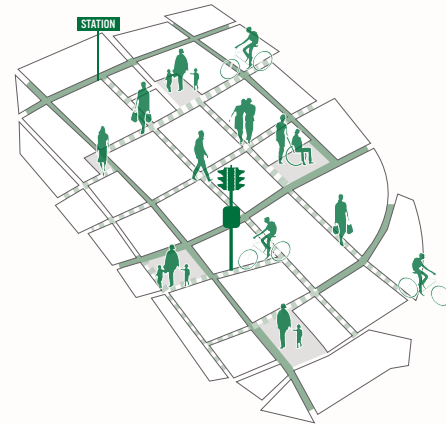
ACCESSIBLE

- Create accessibility for everyone - including people who have problems walking or use walking aids, the young, the old, and people with special needs, etc.
- Offer alternatives if one road can't meet all needs
- Plan sufficient space for pedestrians and cyclists
- No barriers, well-surfaced paths and cycle tracks
- Well-signed crossings that aren't too far apart
- As few grade changes, overpasses or underpasses as possible

CLEAR

- It's easy to find the way
- Roads have a clear hierarchy
- So self-explanatory there is no need for a map
- Signs and repeater symbols point the way
- Special features or sightlines
- The way can be found even at night
- Unobstructed views aid orientation
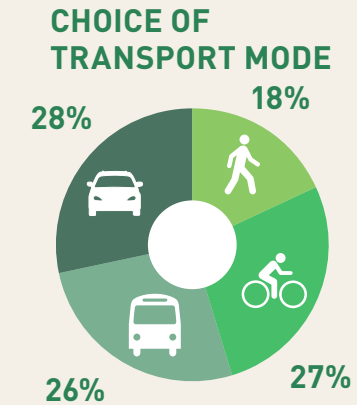- Uniform structures for cyclists (same cycle tracks, same lighting)

SMART

- Improve the experience of waiting for public transport
- Shelters against wind, heat and cold
- Provide crossings at the places where people want to cross the roads
- Cyclists and buses take priority at traffic lights
- Online reservations for city and commuter bikes
- Cycle racks close to everyday destinations

In Odense cyclists and pedestrians have easy access to paths with smooth surfaces and few obstacles.

An orientation system for cyclists shows dedicated and preferred cycle routes to a variety of destinations.

City bikes can be reserved by text message in Odense, ensuring that a bike is available when required.

BEST PRACTICE — Odense, Denmark

Odense's city council has worked hard to create a convenient, easy-access infrastructure for pedestrians and cyclists. The new mobility scheme concentrates on improving the efficiency of people's daily travelling and encouraging them to make greater use of greener alternatives.

CHOICE OF TRANSPORT MODE

18%
28%
26%
27%

FACTS
Greater central city:
15 km^2
population: 166,305 (2010)
110 inhabitants per hectare

Easy to cross

Can see far enough ahead

Easy to find the way

Well-lit

Good smooth surface with no obstacles

Accessible to all

20%
increase in bike riding during the four years of the "National Cycling Capital" project

540 km
of dedicated cycle tracks within city limits

72%
use green mobility options

PLEASURE

Immaterial values are steadily gaining importance in our present-day society. Where we live is an issue that has become part of our identity and self-development. The more we know about the world, the greater our desire to be unique.
We seek that special something, a place with which to identify - a place that gives us a strong sense of being at home.

HUMAN SCALE

- Spaces, buildings and roads that have been designed with human needs in mind
- Homely streets on a manageable scale
- Dimensions and details that stimulate our senses
- Intimacy that invites us to go and meet people
- Top-quality design and materials
- Lighting and signage that meets people's needs
- An environment that offers variety and a range of impressions at eye level

IDENTITY

- Environments with special characteristics
- Tangible heritage/history
- Recognize and build on the context of a place
- Appreciate local traditions and identities
- Have a sense of place
- Underscore the positive aspects of existing leisure facilities
- Create a sense of belonging

RECREATION

- Offer good links to recreation areas
- Provide possibilities on or near the pavements (sidewalks) for games or physical exercise
- Seating in quiet spots where people can relax and chat
- Places to rest and meet others along the pathways
- Create beautiful views
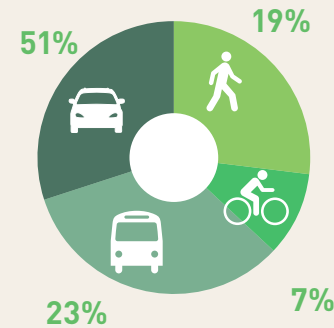- Plant trees and shrubs on the streets

The street provides an environment with human dimensions and a stimulating range of activities and details.

Activities in the cultural facilities housed in the surrounding buildings spill out into the street.

The street invites passers-by to stop and stay for a while - basically, it's a good environment for social interaction.

BEST PRACTICE — New Road, Brighton, England

New Road in the centre of Brighton was a little-noticed side street - a white spot on the map of networked public spaces. In the course of extensive alterations New Road was turned into a shared street and public space where people can spend some downtime or meet up with others. New Road complements neighbouring destinations frequented by the general public and has become one of the busiest spots in town.

CHOICE OF TRANSPORT MODE

51%
19%
23%
7%

FACTS
greater central city:
58 km^2
population: 155,919
(2001)
27 inhabitants per hectare

Human-scale buildings of similar height

Good views

Place has identity

Well-defined, protected spaces on a human scale

An eye for detail

Recreation

Seating placed in sunny spots

93%
less car traffic, average speed less than 20 km/h

25%
MORE CYCLISTS

175%
MORE PEDESTRIANS

600%
MORE TIME SPENT IN THE STREET

CULTURE

To establish green mobility in a city takes more than simply working on physical characteristics. It is equally important to promote green mobility through publicity campaigns and educational efforts.

To create a culture of sustainability will also involve changing how cities work, striving for a culture of collaboration between the public and private sectors and practising citizen participation; it will test the ability of cities to define clear objectives and build political support. If they want people to change the way they act, city councils must focus on procedures and efficient work processes.

EDUCATION AND COMMUNICATION

- Education, e.g. cycling classes at school
- Campaigns, e.g. road safety information for new residents
- Information and communication
- Events to explore or mould opinions
- Nudging people in the right direction instead of imposing outright bans

POLITICAL SUPPORT

- The strategies, visions and objectives of sustainable mobility should be an integral part of a town/city's guiding principles
- Ensure politicians are on board
- Lobby for sustainable mobility
- Conduct before and after surveys in order to measure success and promote best practice models

COMMITMENT

- A standing process of dialogue and other ways to involve the public
- Polls of public opinion and mobility habits
- Cooperation between the state and private enterprise
- Cooperation with NGOs and citizens' action groups

49 % less commercial space remained empty after the makeover of Union Square

172 % more retail turnover in Pearl Street, Brooklyn (18% for the borough overall)

66 % of New Yorkers are in favour of bicycle lanes

74 % of New Yorkers think Times Square has improved significantly

New York City temporarily closed some streets (called "summer streets"). Taking part in events and activities was a completely new street experience for a large number of different users.

The pilot project along Broadway was one way to generate political support because it demonstrated the benefits needed in terms of improving safety and boosting the local economy.

As part of its "New York City Plaza Program" the city invites local organizations to apply for a pilot project slot in their neighbourhood which is then co-funded by the city government.


BEST PRACTICE — New York, USA

Within a short space of time New York City has done an impressive job of altering its infrastructure and ensuring that people are far more receptive to the idea of sustainable mobility. Testing pilot projects for a limited time proved to be a great success. Innovative approaches could be trialled before spending money on permanent alterations to the infrastructure. The pilot projects gave people an opportunity to test the full effects of the potential changes and to provide feedback based on their experiences. Before and after surveys on accident statistics, street soccer, cycling, economic impact and behavioural aspects provided the proof needed to document the project's success, which in turn lent considerable political clout to the advocates of further changes.

CHOICE OF TRANSPORT MODE

- 30 %
- 14 %
- 1 %
- 55 %
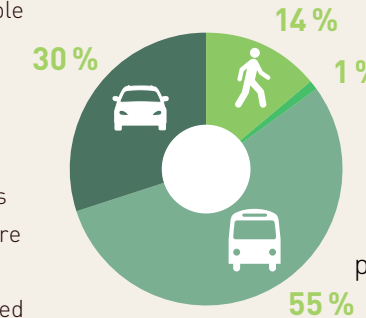
FACTS

Area: 22.8 km² population: 612,000 (2010) 19 million live in greater metropolitan area (source: www.nyc.gov)

CITYWIDE

11.3 % increase in trips into the inner city (2003 – 2012)

2.4 % less traffic volume (2000 – 2009)

30 % fewer fatal accidents citywide (2000 – 2010)

6.5 % fewer vehicles heading into downtown (2003 – 2012)

58 % greater use of bicycles throughout the year (2008 – 2012)

Source: Sustainable Streets Index, 2012, New York City Dept. of Transport
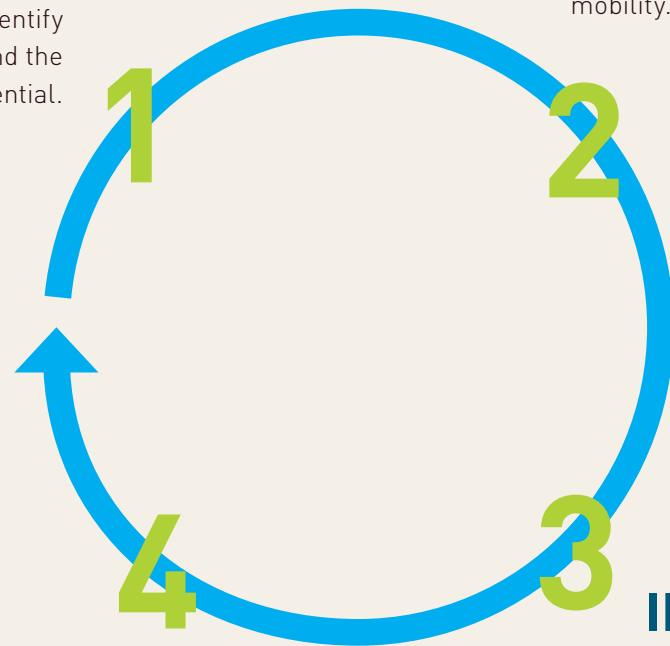
TOOLS OF CHANGE

Just as cities can change, so too can the habits of their residents. Change can be set in motion on many levels - it may be sparked by an individual, reflect a local perspective or stem from citywide schemes and strategies initiated by local authorities and policy makers. Both kinds of approach - bottom-up and top-down - are necessary if change is to be positive and successful.

Prior to making any changes, it is vital to start by reflecting on the features that make a place unique before seeking to identify its potential and define the challenges facing a city or neighbourhood. Determine important characteristics and evaluate their scope and quality.

ASSESS

Measure and assess the situation regarding green mobility in your neighbourhood and on your daily journey to work or school. Identify the biggest challenges and the greatest potential.

SET TARGETS

Propose objectives and define the requirements your neighbourhood and city should meet to allow more people to switch to sustainable mobility.
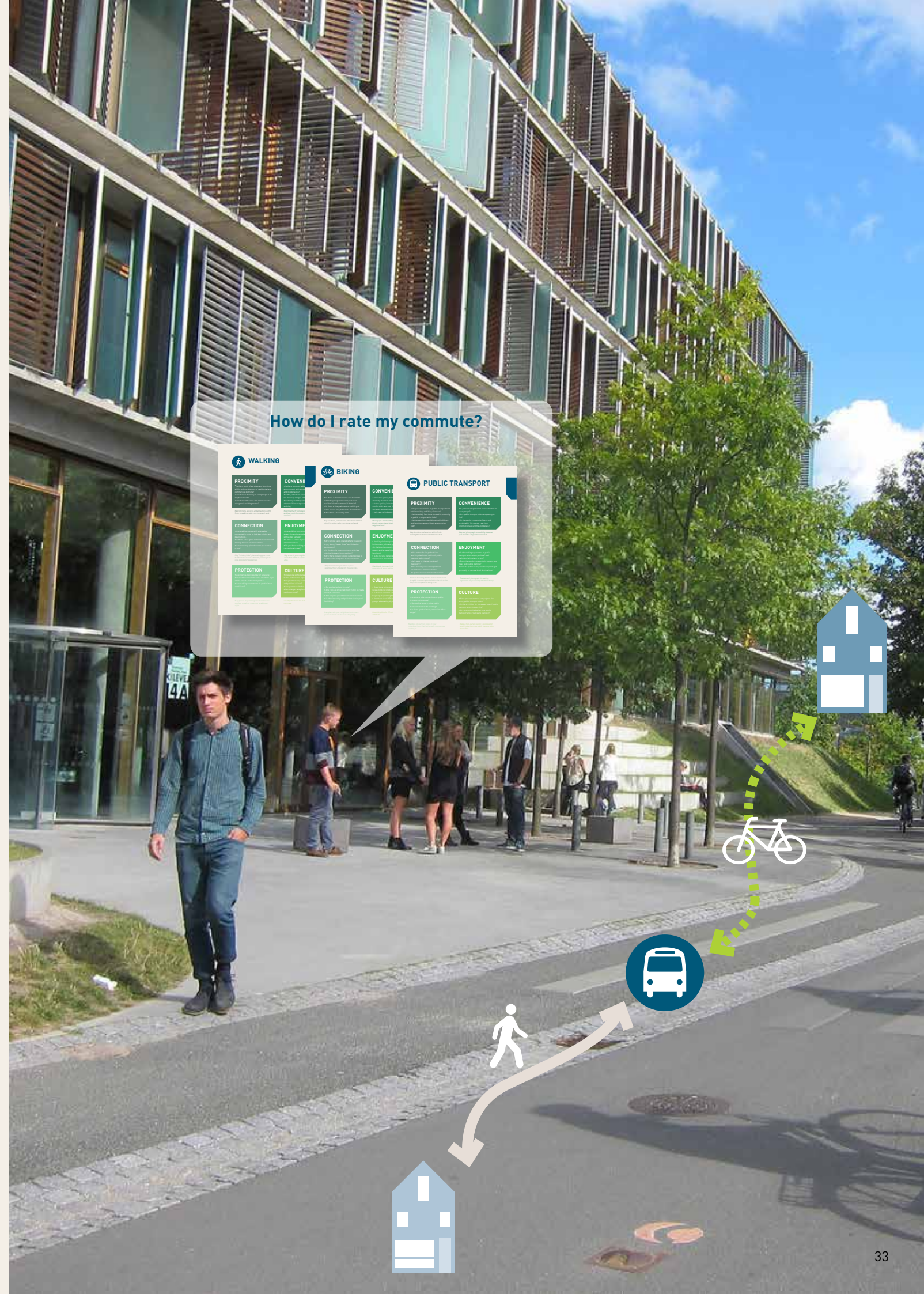
REVIEW

Once the changes have been implemented, assess the results and provide feedback. Were all the objectives along the way to green mobility achieved?

IMPLEMENT

Find and identify spaces in your neighbourhood that would lend themselves to improvements, in the sense of both long-term schemes and short-term pilot projects. Canvass support from the local community, advocacy groups, officials and politicians.

How do I rate my commute?

WALKING

BIKING

PUBLIC TRANSPORT

PROXIMITY CONVENIENCE

CONNECTION ENJOYMENT

PROTECTION CULTURE

RATE YOUR COMMUTE

In this publication we introduce a selection of rating tools for someone's personal assessment of the different kinds of mobility that he/she uses to travel around the city - on foot, riding a bike or by public transport - and thus explore the quality of a space as experienced by the individual. The rating tool can form the basis for discussion and dialogue, or be used to set targets and discover where improvement is needed.
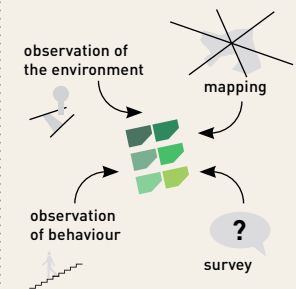
HOW IS THE TOOL USED?

RATING THE QUALITY OF SPACE

This tool can be used to rate the quality of a space from the pedestrian's point of view. It serves as an instrument for discussion and dialogue.

IN-DEPTH SURVEYS

observation of the environment

mapping

observation of behaviour

? survey

More extensive surveys can add to the substance of each quality criterion so that the rating carries more weight.

VISIONS OF THE FUTURE AND PROGRESS
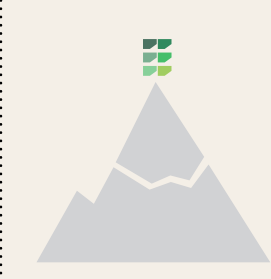
When the rating phase is over this tool can be used to record visions and targets so that steps for improvement can be defined.

QUALITY CHECK LIST

When tackling new projects the instrument can be employed as a quality check list.

Rating

To ensure the relevance of your rating, carefully document the walkability qualities and place them in their specific context.

For every criterion, distinguish between "good", "average" and "poor".

As an auxiliary to the tool, any remarks and specific points should be entered on a map. Note any observations that deviate from the overall rating.

Take photos to document your observations.

🚶 WALKING

PROXIMITY

• Starting from residential or business districts, are various services and functions within walking distance?
• Is there a variety of different user groups in the neighbourhood?
• Are the façades along the central walkways attractive and active?

List which functions, services and attractions are within a five-minute walk of your home and of your workplace.

CONVENIENCE

• Is the neighbourhood an inviting place to walk? Is it reliably barrier-free and is there enough space?
• Is the neighbourhood designed for pedestrians of every age and skill level?
• Is it easy to find one's way around? Are there various options for walking to places?

Note how much of the street space is reserved for pedestrians and how much for motor vehicles.

CONNECTIONS

• Are pedestrian routes connected in such a way that key destinations and starting points can be linked together?
• Is the network of routes so finely meshed that people can reach their destinations without making big detours?
• Are there crossing points at the places where people want to cross?

Note any omissions: where are pavements (sidewalks) and zebra crossings lacking? Where are long detours necessary?

PLEASURE

• Have the footpaths in your neighbourhood been made to a human scale? Do the dimensions and impressions stimulate your senses?
• Do you get a feeling for the place and its specific characteristics?
• Can parks or recreation areas be reached on foot?

List places in your neighbourhood that are more than five minutes away from the nearest park or recreation area.

SAFETY

• Are there safe crossings for all users?
• Does one feel safe walking? Does one feel isolated? Are the paths well-lit?
• When using these paths, how well is one protected against the elements?

Note the places in your neighbourhood where you feel uncomfortable or unsafe when walking at night.

CULTURE

• Do local schools teach children about road safety for pedestrians?
• Do you have easy access to local planning policy visions or strategies?
• If changes are planned in your neighbourhood, does anyone ask you for a pedestrian's opinion?

On your way to work, count the number of pedestrians you see in the space of 15 minutes.

🚲 CYCLING

PROXIMITY

- Starting from residential or business districts, are various services and functions within cycling distance?
- Is the network of cycle paths so finely meshed that people can reach their destinations without making big detours?
- Is there a hierarchy of possible routes?

List which functions, services and attractions are within a five-minute cycle ride of your home and of your workplace.

CONVENIENCE

- Is the infrastructure inviting for various groups of cyclists - including children and senior citizens?
- Is the infrastructure for cyclists convenient and user-friendly? What is the surface like on the route? Is there enough space for cyclists?
- Is it easy to find one's way around?

Photograph and map the quality of the cycle track network and cycle racks in the neighbourhood.

CONNECTIONS

- Do the routes you use daily have cycle paths? Do they run alongside busy roads and are they connected with important destinations?
- Do cycle paths join up to form a closed network with only a few gaps?
- Are there enough cycle racks at important destinations and public transport stops?

Note the cycle tracks in your neighbourhood. Where are they lacking?

PLEASURE

- Are the cycle tracks in pleasant surroundings with shelter from the elements, and with greenery?
- Are cycle paths linked to public spaces that offer other activities and functions?
- Are cycle paths linked to recreation destinations?

Note the cycle tracks and how they connect to parks and recreation destinations. Where are there gaps?

SAFETY

- Do you feel safe when cycling?
- Are cyclists protected from fast-moving traffic (40 km/h or more)?
- Do cyclists have priority at intersections?
- Is the air quality good for cycling?

Note the places in your neighbourhood where you feel uncomfortable or unsafe when cycling.

CULTURE

- Do local schools teach children about road safety for cyclists?
- Does your neighbourhood or city have visions or objectives for the future which involve encouraging more people to cycle?
- Are there local NGOs or community groups that actively promote cycling?

On your way to work, count the number of cyclists you see for 15 minutes.

🚌 PUBLIC TRANSPORT

PROXIMITY

- Is it easy to reach public transport on foot or by bike?
- Are functions of daily life close to public transport nodes?
- Is there a higher density of buildings and amenities around these nodes?

List the functions and services you can reach within five minutes (or that are less than 600 metres away) from the transport node.

CONVENIENCE

- Can all user groups access public transport?
- Are the stops easy to find?
- Is local public transport efficient and reliable? Is real-time information about travel times and delays provided?

List and photograph problems with access to your local public transport stops.

CONNECTIONS

- Are the pedestrian and cycle routes well linked with public transport stops?
- Is it easy to switch from one mode of transport to another?
- Are public transport stops near important destinations?
- Is local public transport affordable?

Note how long it takes you to travel from home to work (door to door) by public transport compared with using your car.

PLEASURE

- Is waiting at a stop a positive experience? Are the stops in good condition? Is it possible to have a rest?
- Does the local transport company operate with a clear and visible brand identity?
- Is it easy to reach recreation areas by public transport?

Photograph and rate the waiting experience at your local stops.

SAFETY

- Are there safe connections to and from public transport stops?
- Are you completely relaxed about using public transport at night?
- Do bus stops protect people well from the elements?

Note the stops in your neighbourhood where you feel uncomfortable or unsafe.

CULTURE

- Have you noticed any advertising for public transport?
- Does your town have a vision to encourage greater use of public transport?
- Do people ask your opinion when new local transport routes are planned?

Conduct a little survey and ask five people under what circumstances they would use public transport more frequently.

SOURCES

Fig. 1: CO_2 emissions in Germany, 2004
Fig. 2:   DTU Technical University of Denmark
Fig. 3:   Copenhagen, Solutions for Sustainable Cities, 2011
Fig. 4:   "Byernes rolle i klimastrategien" Frederikshavn Kommune, Sønderborg
            Kommune, Albertslund Kommune og COWI A/S
Fig. 5:   "Byernes rolle i klimastrategien" Frederikshavn Kommune, Sønderborg
            Kommune, Albertslund Kommune og COWI A/S
Fig. 6:   Study by Syddansk University, 2005
Fig. 7:   Pucher & Dijkstra, "Promoting safe walking & cycling to improve public health",
            American Journal of Public Health, September 2003
Fig. 8:   Copenhagen, Solutions for Sustainable Cities, 2011
Fig. 9:   Copenhagen 2013 Bicycle Account
Fig. 10:   Gehl Architects
Fig. 11:   Jan Gehl, Cities for People, 2010, p. 76
Fig. 12:   Jan Gehl, How to Study Public Life, 2013, p. 157
p. 20-21:   Transforming cities to achieve a financially and economically sustainable future,
            Rob Adams, director of city design at the city of Melbourne
p. 22-23:   City of Copenhagen, Technical and Environmental Administration, 2014,
            Copenhagen Solutions for Sustainable Cities, 2011
            Jan Gehl, Cities for People, 2010, p. 20
p. 24-25:   Case study, Hammarby Sjöstal, Sweden, ITDP Europe, 2010
p. 26-27:   Odense Municipality, 2011
p. 28-29:   Gehl Architects and City of Brighton, 2007
p. 30-31:   Sustainable Streets Index, 2012, NYC DOT

Gehl
Architects