

### **Foreword**

When I was growing up in Malmö, the city's air was very different to what it is today. Today's limit values for sulphur, nitrogen and lead were significantly exceeded back then, and the lead remains stored in our bodies to this day. Since then, there have been dramatic improvements. Sulphur dioxide and nitrogen dioxide levels are generally a long way below the limit values, and leaded petrol has been banned. Despite this, however, atmospheric pollution in the city is still the biggest challenge we face, and the biggest involuntary public health problem. It is thought that there may be almost ten times as many deaths from atmospheric pollution as there are from traffic accidents. And it is traffic itself which produces much of this pollution. When the environment started to gain currency as a political issue again in the mid-1980s, it was this direct environmental effect on the people of Malmö which was the focus of attention. We have since learnt that exhaust fumes also mean that we are adding to the already excessive levels of carbon dioxide in the atmosphere.

In addition, traffic is often seen to be unpleasant and the real problem in terms of the city's wellbeing. Now, as the population of the city grows at a dizzying rate, so too grows the problem of overcrowding. As you are no doubt aware, there are many important reasons for improving the traffic environment. We need to travel in a more resource-efficient manner and using renewable fuels in order to both reduce the impact we have on the climate and improve our health. However, we also need to improve accessibility to the city, and in doing so the car cannot be allowed to dominate as it does today. If more people walk, cycle and travel by pu-

blic transport, everyone will have efficient and environmentally-friendly access to all that the city has to offer. What's more, improved coordination and more effective planning can lead to goods and people being transported more efficiently than is currently the case.



The efforts we have made

as part of the CIVITAS SMILE project are examples of what we need to do much more of. Public transport needs to be made more attractive, and we need to cycle and walk more – we need to stop making ridiculously short car journeys. Trams and electric buses are two essential steps towards achieving this, along with expanding the network of cycle paths. When we look back in 20-25 years' time at the dramatic way in which we have changed our travelling habits in the city, I believe that we will be grateful for all the SMILE project initiatives which changed attitudes towards travelling. So join with us in expressing our gratitude for all the efforts made for an even better and more sustainable city.

ANDERS RUBIN

HOUSING AND URBAN ENVIRONMENT DIRECTORATE MUNICIPAL COMMISSIONER MAI MÖ STAD



# How we control traffic, travel habits and air pollution

Travel habits surveys and traffic counting is methods for knowing how and were people in Malmö is travelling. Meashuring the air pollution gives us a knowledge of the quality of the air. There is still much to do about air pollution but there is hope, more residents in Malmö choose to walk or bike instead of driving their car.

### TRAFFIC AND POLLUTION

Traffic is responsible for most of the air pollution in Malmö. In the narrow, busy streets of the city centre, emission levels are so high that Malmö exceeds the values (known as environmental quality standards) for nitrogen dioxide in some places. Shipping in the harbour is another problem area.

However, from a long-term perspective (the last 20 years), the air in Malmö has on the whole improved significantly.

Malmö's air quality has been monitored since the beginning of the 1970s, when researchers started to measure sulphur dioxide and "suspended dust" (particles). Since then, the measuring work has increased progressively, and today air data is collated from three fixed measuring points and from a mobile measuring vehicle. Sulphur dioxide, particles, nitrogen dioxide, ozone, carbon monoxide and hydrocarbons are measured on an ongoing basis.

### TRAFFIC IS MEASURED IN MALMÖ

In Malmö the traffic is counted yearly in 140 traffic measure points. From this we cover the movement of the traffic to and from different areas in Malmö. In ten different sections we can follow how the traffic changes over the years and it is used to plan the future traffic in Malmö. In addition to the digital countings we also count manually on location.



### THE PEOPLE OF MALMÖ CHOOSE TO DRIVE LESS OFTEN

The City of Malmö carries out a large-scale travel habits survey every five years, with the most recent survey having been carried out in 2008. Being able to monitor the changes in the travel habits of the people of Malmö, it is encouraging to see that cars are being used for shorter journeys less often.

On average, the number of journeys per person for 2008 and 2003 is the same. However, the number of car journeys has fallen from 52% of all journeys in 2003 to 41% in 2008.

Conversely, the number of shorter journeys on foot and by bicycle has increased, and for longer distances the number of train journeys has also gained ground. This is in line with the increases in rail and bicycle traffic recorded in the region. Overall, the percentage of bicycle journeys has risen from 20% to 23%, with the number of journeys on foot increasing from 14% to 20%. Train journeys have gone up from 3% to 5%.







### Cykling in Malmö

Malmö is Sweden's best city for cycling. With 420 kilometres of cycle paths and a quarter of all journeys in the city made by bike, Malmö can count itself as one of the world's leading cycling cities. Thanks to the relatively mild climate and the flat terrain, it is possible to cycle all year round in Malmö.

### **CYCLING: FASTER, SAFER AND MORE ENJOYABLE**

A long cycling route runs through Malmö from the southern part of the inner city to Universitetsholmen in the north. This route varies significantly in character. In the north, it runs past the old part of town before following the fashionable street of Fersens Väg, then along Pildammsvägen before branching off eastwards. The route then runs past Södervärn, before continuing under Nobelvägen towards Sofielund and Heleneholm.

A variety of solutions are being tested along this stretch to make cycling faster, safer and more enjoyable. The innovations introduced here include rails at traffic lights which cyclists can rest against so that they do not need to put their feet down. To allow people to see what is happening around the corner, large mirrors have been erected in a crossing where visibility

would otherwise be poor. Different types of lighting are also being trialled along the route to improve visibility in the dark. Tools have been added to the three air pumps along the cycle route, turning them into mini-service stations where cyclists can carry out simple repairs.



### **INSPIRING BOOK ABOUT BICYCLE PARKING GARAGES**

Two new railway stations will be opening in Malmö once the City Tunnel is complete. At the same time, Malmö Central Station is being radically remodelled. For even more people public transport combined with cycling will be a convenient way of commuting. In order to make life easier for cyclists, Malmö's first bicycle parking garages are being planned. To ensure the high-quality design of the garages and the facilities they offer, the City of Malmö has produced an inspiring book about bicycle parking garages.

The book presents ideas, images and visions from selected architects and industrial designers, and goes beyond ingrained thought patterns and traditional ideas about what a garage should look like. Here, it is cyclists and their needs which

take centre stage. Basic facts about the dimensions of bicycles, cycle stands and fixtures sit alongside innovative technical solutions, new types of cycle stands, beauty spots and bold new architecture. The book is aimed at all those carrying out cycle-related planning in the city.





### CYCLING BAROMETERS COUNT CYCLISTS

"Cycling barometers" on Kaptensgatan and at Södervärn count passing cyclists and provide a visual indication of cycling levels in Malmö. These barometers are a way of showing how many people cycle in Malmö, and remind cyclists that they are appreciated.

### PRIORITY FOR BICYCLES

Radar sensors have been fitted at around thirty cros-

sings in Malmö to detect approaching cyclists and automatically give them a green light. This allows cyclists to flow more smoothly in traffic.



### **FREE AIR**

Properly inflated tyres make cycling much easier. Air pumps have been installed at six locations around the city – Kaptensgatan, Södervärn, Värnhem, Gamla

Idrottsplatsen, Hovrätten and Erikslust – for cyclists who need to top up their air. The pumps can also be used for prams and wheelchairs.



### FINDING THE BEST CYCLING ROUTE ONLINE

A journey can begin even before you get on your bike. Skånetrafiken's website includes an online bicycle journey planner which suggests the best route to take

when cycling in Malmö. You also get a time comparison for the same journey by bike, bus and car. Cycling often comes out best.



#### TAKE A MAP WITH YOU

A free map is available showing all of Malmö's cycle paths. The map is updated every other year to show

new cycle paths. The latest version is always available from the town hall and tourist information offices – pick up a copy and take it with you when you go cycling!









# Public transport in Malmö today

Travelling to and from Malmö by bus and train is easy. Within the city, Skånetrafiken's green city buses run frequently along trunk lines and are entirely powered by biogas.

A focus on modern, environmentally-friendly public transport means that passengers can find out departure times using their mobile phones and public transport is given priority at crossings, ensuring green, clean travel.

The Öresund train, which departs from Malmö every twenty minutes, also links Malmö with Copenhagen and the rest of Denmark.

### **BUS TRAVELLERS FEEL THAT THEY TAKE PRIORITY**

Bus travellers in Malmö take priority. In purely practical terms, the city's buses communicate electronically with traffic lights so that they get a green light more quickly than cars. And if the traffic light is about to turn red, buses are given a green light for a few moments longer. This is just one way in which the City of Malmö helps to make it easier to travel around the city in an environmentally-friendly manner.

### **EIGHT TRUNK LINES FOR FREQUENT CONNECTIONS**

Skånetrafiken's city bus services in Malmö are based around eight trunk lines which cover much of the city. City buses run so frequently on these trunk lines that there is almost no need for a timetable. During the rush hour, most of these lines run almost every six minutes. Skånetrafiken has also drawn up a safety policy and installed cameras on all city buses for greater security onboard.

### **REAL-TIME BUS INFORMATION**

Skånetrafiken has installed digital real-time signs at almost 100 bus stops in Malmö so that travellers can see when exactly buses will arrive. You can also get real-time information via your mobile phones using either mobile internet or a downloadable program. Having a mobile journey planner allows you to plan your journey on the go. But if you still miss your bus, the city buses run so frequently that it's not a big problem!

### TAKE THE TRAIN TO THE HEART OF MALMÖ

The Öresund train links Malmö and Copenhagen, with connections across the Öresund Bridge at least three times an hour.

When the City Tunnel opens in 2010, you will also be able to take the train straight to the centre of Malmö, since the Öresund train will be stopping at Malmö Central, Triangeln and Hyllie.





# Public transport in Malmö tomorrow

Malmö faces real challenges when it comes to increasing the capacity of its public transport network. The population of the Öresund Region and Malmö itself is growing, resulting in ever more daily journeys by bus and train. Moreover, public transport needs to be developed in order to reduce the impact we have on our environment.

### **RAIL RING LINE**

There are plans to use the City Tunnel and the Continental Line to link eastern Malmö with the city centre and Hyllie. One train in each direction a couple of times an hour would make it easy to get around Malmö. New stations are being planned, with the first one being located in Rosengård. There is also a proposal to reopen Östervärn station and build a new station in the industrial area of Fosie.



### ATTRACTIVE ALTERNATIVE TO THE CAR

In autumn 2007, the City of Malmö began an in-depth study into the public transport of the future. Public transport should be so attractive that it is just as good as or better than travelling by car. This means providing a clear, simple network of lines with frequent services, good access and a high degree of comfort.

Malmö needs a transport system where the various forms of public transport work together and link up with walking and cycling. As well as city buses, regional buses and trains, city rail transport is also needed. Regional bus traffic can be improved by giving it a higher priority within the traffic system and with attractive city traffic interchanges.

Travellers need to be able to rely on arriving on time, with the journey being fast, safe and secure, and with reliable information. Good public transport which persuades large numbers of motorists to change their travelling habits also means better access for those who genuinely need to travel by car.







## **Transportation of gods**

Shorter journeys and less empty mileage help save both money and the environment. Thanks to investments in satellite-controlled logistics systems, distribution systems and eco-driving, businesses and the City of Malmö have been able to reduce their emissions when distributing goods within Malmö.

### **SMARTER ROUTES WITH GPS**

As part of the CIVITAS SMILE project, logistics company 215 215 has introduced a new logistics system which uses GPS

and GPRS to give a clear overview of where all its delivery vehicles are. This has led to greater efficiency and less stress for administrative staff, whilst also reducing unnecessary empty mileage.



### **DELIVERING MILK BY BIOGAS**

As part of the CIVITAS SMILE project, the dairy company Skånemejerier has replaced ten of its diesel lorries with versions

powered by biogas, and also has its own filling station. The company's new warehousing system also enables it to load more products onto each pallet, thus reducing distances driven and saving fuel.



### **ECONOMICAL, SMART HGVS**

Malmö Lastbilscentral has invested heavily in "heavy ecodriving" – economical driving for HGVs – enabling it to make a saving of around 15% on its fuel consumption. Some vehicles

have also been fitted with onboard computers which can work out the fastest route and how much fuel will be used. One positive secondary effect is that the company has seen a significant reduction in damaged goods since introducing these measures.



### LOCALLY-GROWN FOOD, DIRECT FROM THE FARM

The City of Malmö has helped to set up the Lokal Mat 250 ordering system which connects food producers with res-

taurants and caterers via a website. Farmers can upload details of seasonal produce and restaurants can log on to order locally-grown, organic food which is then delivered on a pooled basis by biogas-powered lorries.





# **Environmentally-friendly** cars and fuel

The City of Malmö and many of the city's organisations and businesses are investing in environmentally-friendly cars. The City of Malmö's own fleet of vehicles already consists almost exclusively of environmentally-friendly cars, and a large number of private companies have followed this lead.

In Malmö, we produce renewable biogas, and ethanol is available from many petrol stations. We have Sweden's only hydrogen gas filling station, and people with environmentally-friendly cars can park for less.

## ENVIRONMENTALLY-FRIENDLY VEHICLES MAKE LIFE EASIER

In Malmö, driving an environmentally-friendly vehicle is a little easier and cheaper for both private individuals and those who drive at work. Malmö has a low-emissions zone for HGVs.

Only HGVs with modern engines are allowed within the inner ring road. Private individuals who drive environmentally-friendly cars made within the last three years old can apply for a special parking permit from the City of Malmö which entitles them to one hour's free parking.



## COMPLETELY CLEAN FLEET OF VEHICLES FOR THE CITY OF MALMÖ

Today, the City of Malmö's company vehicles are almost exclusively classified as environmentally-friendly cars, with many them using renewable fuels such as biogas and ethanol. A few are electric, and one even runs on hydrogen gas from wind power!

# BUSINESSES AND ORGANISATIONS INVEST IN ENVIRONMENTALLY-FRIENDLY VEHICLES

As part of the EU CIVITAS SMILE project, a number of businesses and organisations in Malmö have bought more environmentally-friendly cars and are continuing to do so. For example, Skånemejerier has replaced ten of its lorries with biogas-powered versions with carbon dioxide coolers. Malmö University Hospital has bought more than 20 environmentally-friendly cars, while logistics company 215 215 and car pool operator Sunfleet are also using environmentally-friendly cars. In addition, all Skånetrafiken's city buses in Malmö run on biogas, as do many regional buses.

### **RUN YOUR CAR ON LEFTOVER FOOD**

In Malmö, VA SYD collects organic waste such as leftover food from households and restaurants. The organic waste is then composted at Sjölunda sewage works. This produces biogas, which is cleaned using E.ON's biogas upgrading facility and pumped into Malmö's biogas network, producing a total of

20 GWh – or the equivalent of 2 million litres of petrol – each year. This allows both buses and cars to run on renewable food waste, without producing fossil carbon dioxide emissions.









## The impact on travelling

Since 2001, the City of Malmö has been working to change attitudes and behaviours, with the aim of changing the travelling habits of those who live in Malmö. The aim is that more people should choose to walk, cycle or use public transport, instead of using their cars.

### THE FRIENDLY ROAD TO SCHOOL PROJECT

The fact that so many parents regularly drive their children to school has become a major problem. The large volumes of cars, combined with parents being stressed in the morning, means that it is not safe for children to be in the traffic surrounding their schools. Exhaust fumes hang in the air around schools long after the cars have moved on.

The Friendly Road to School project aims to encourage parents of children attending the first few years of school to walk or cycle to school with them instead of driving them by car. The traffic around the school becomes safer for children, and the air becomes cleaner and healthier to breathe. Best of all, the exercise burns off excess energy, allowing children to concentrate better at school. And of course, exercising helps them to feel better.

Each metre walked by pupils on their way to school is converted into a footstep on a giant map of Europe at each of the participating schools. In this way, the project can be integrated into teaching and the children learn about the cities and countries which they "pass through".

### **NEW ADDRESS, NEW TRAVELLING HABITS**

All new residents in Malmö between 2005 and 2007 received a letter, signed by the Streets Director, explaining how easy it is to get around Malmö without a car. The letter was followed up with travel advice by phone. Those using a car for most of their journeys were offered a one-month public transport travel card or a rental bicycle. Those who already used public transport or walked or cycled for most of their journeys were entered into a draw to win a bicycle. Since 2007, the New Address, New Travelling Habits project has focused on those moving into specific parts of the city, such as Western Harbour.

### **CORPORATE COOPERATION**

Persuading companies to take more responsibility for business travel and employees' journeys to and from work is part of the work involved in changing travelling habits. Having held seminars and breakfast meetings on the subject, Malmö started to

work with companies by offering help and advice in drawing up mobility plans including measures to change travelling habits. In the Businesses on Bikes project 53 companies replace ridiculously short car journeys with bicycle journeys.





### MAKING SMART CHOICES - "VÄGVALET"

"Which road should we take in order to reduce car traffic in Malmö?" This is the question we asked as part of a campaign aimed at the residents of Malmö. This generated a great deal of interest, with more than a thousand ideas being registered on our forum at malmo.se/vagvalet. Many of these suggestions related to public transport and cycling, as well as banning car traffic from the city centre. One idea involved making the whole of Södra Förstadsgatan a pedestrianised street, thus creating a "green route" all the way to Möllan. Another suggestion was to use the canal for public transport.

These ideas have been interpreted and visualised by illustrators, architects and artists, and have been displayed using unique "future binoculars" in three locations around the city and at malmo.se/vagvalet. These "future binoculars" allowed the people of Malmö to see the city as it would look with less space for cars and more space for pedestrians, cyclists and public transport.

### **NO RIDICULOUS CAR JOURNEYS**

A large number of ridiculously short car journeys – i.e. journeys which are shorter than five kilometres – are made every day in Malmö. The No Ridiculous Car Journeys campaign aims to encourage people to think about how they use their cars and to cycle instead of making these short journeys by car. One initiative was a competition to win a bike by providing details of a ridiculous car journey made by either the competition entrant or a friend. When the campaign was launched in May 2007, half of all those living in Malmö were aware of it and many people now choose to cycle instead of driving when they would previously have made a ridiculously short car journey.

No Ridiculous Car Journeys has gained widespread attention, both internationally and from other Swedish cities. Helsingborg, Kristianstad and Umeå have already used this campaign, and more cities are planning to do so. In Malmö, the No Ridiculous Car Journeys campaign will be repeated every spring.

### The impact on travelling within the City of Malmö's organisation

### TRAVEL POLICY FOR SUSTAINABLE JOURNEYS

An improved travel policy and an extensive programme of measures to speed up the work carried out within the City of Malmö's organisation to create a sustainable transport system.

### **ECONOMICAL DRIVING PAYS**

All City of Malmö employees were offered a free eco-driving lesson between 2005 and 2008, with more than a thousand employees taking advantage of this. Most of those who took part have been able to reduce their fuel consumption by around 15%, just by changing their driving styles. There are significant savings to be made for both light and heavy vehicles.

### THE CITY OF MALMÖ AND ITS SKY BLUE BIKES

City of Malmö employees will soon be cycling through the city on sky blue bikes. Some departments already have the new company bikes, and the aim is that all departments should take part in this initiative, enabling employees to travel

by bike instead of making short business car trips. The sky blue bikes will be leased, and the agreement includes servicing.



## **Traffic environment programmes**

The City of Malmö has a range of programmes, targets and plans for the work being carried out in order to create a better traffic environment, including the Traffic Environment Programme, Overview Plan 2000, the City of Malmö Environmental Programme 2003-2008 and the Traffic Strategy. The County Administrative Board has also drawn up a programme of measures to ensure that the City of Malmö works even harder to resolve the issue of nitrogen dioxide levels exceeding or risking exceeding environmental quality standards at a number of locations across the city.

### THE TRAFFIC ENVIRONMENT PROGRAMME 2005-2010

The City of Malmö Traffic Environment Programme 2005-2010 has four focus areas: a healthier, cleaner, quieter and more efficient transport system. In order to reduce emissions of e.g. carbon dioxide and nitric oxides, a dramatic change is needed in terms of the proportion of journeys currently made by car, replacing these with more sustainable alternatives such as public transport or cycling.

### **THE ENVIRONMENTAL PROGRAMME 2003-2008**

Fresh air is one of the target areas for the City of Malmö Environmental Programme 2003-2008. The programme states that environmentally-friendly transport must be integrated, and must form a natural part of city planning and traffic planning, taking sustainable solutions into account at an early stage.

### **CYCLING AND PEDESTRIAN PROGRAMMES**

The City of Malmö's new cycling programme and the very first pedestrian programme are being presented during 2009. These programmes will form the basis for ongoing work to promote the status of cyclists and pedestrians, and to make walking and cycling more attractive. Both the creation and the implementation of the programmes are based on a broad approach, and will affect city planning, traffic planning, safety and the environment, as well as marketing, behavioural impact and tourism.



# **European and national support projects**

The City of Malmö constantly seeks cooperation with businesses and financial support from European and national bodies. The following are a few examples from recent years which have enabled significant traffic investments to be made in Malmö.

### **CIVITAS SMILE**

Between 2005 and 2009, the City of Malmö led the EU-financed CIVITAS SMILE project, together with Potenza (Italy), Suceava (Romania), Norwich (the UK) and Tallinn (Estonia). A total of more than 50 subprojects were carried out in the five cities, all with the aim of improving the traffic environment through reduced emissions and less noise. SMILE is the biggest EU project led by the City Malmö to date, with an overall budget of more than SEK 300 million.

Subprojects within SMILE included traffic environment initiatives such as cycling, environmental zones, transporting goods, logistics systems, alternative fuels, public transport and car pools.

Efforts have been made in all five cities to improve public transport by prioritising crossings, real-time information, simpler ticket sales and cleaner buses. Malmö's Sunfleet car pool and the Norwich City Car Club have both been set up through the

SMILE project, and these schemes offer a simple and environmentally-friendly way of having access to a car without actually owning one.



### **CLIMATE INVESTMENT PROGRAMME**

The City of Malmö's Climate Investment Programme has resulted in a number of sustainable travel initiatives being carried out in Malmö. For example, the Friendly Road

to School project encourages schoolchildren to walk and cycle to school instead of being driven in cars, which produce emissions and present safety problems.





### **BIOGAS, CAR POOLS, BUSES AND CYCLING BAROMETERS**

A variety of schemes have been implemented in Malmö in order to create a better traffic environment. This brochure describes some of the concrete initiatives carried out by the City of Malmö together with its partners in recent years. There has been a particular emphasis on the CIVITAS SMILE project, which included a whole portfolio of initiatives for cleaner, quieter traffic in the city.

Many of the City of Malmö's traffic schemes can already be seen on the city's streets and squares, but you may not have known about the context behind these. This brochure provides a brief explanation, showing what we have focused on. However, most of our traffic environment problems have yet to be resolved – there is still plenty more to be done...



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