



VÄSTRA HAMNEN SITE FACTS

Developer: Multiple

Architect: Multiple*

Population: 4,326

Projected Population: 10,000

Developed Area: 76.5 ha

Total Area: 175 ha

Current Density: 56.5 persons/ha

Projected Density: 57.1 persons/ha

Current Residential Units: 2,558

Construction Began: 1998

Planned Completion: 2015

Distance from City Center: 2 km

Cars: 440 cars/1,000 residents

Non-motorized Mode Share: 60%

Public Transport Mode Share: 17%

Residents with Carsharing: 3%

* Over 20 architects have been involved; some of the most notable architects include Klas Tham, Ralph Erskine, and Santiago Calatrava.



CASE STUDY

Västra Hamnen

MALMÖ, SWEDEN

Nicole Foletta, ITDP Europe

BACKGROUND

Västra Hamnen is a brownfield redevelopment which provides a mix of uses, high quality cycling and pedestrian infrastructure, good transit access and carsharing, and places an emphasis on mobility management. Non-motorized transportation use is higher and car use is lower in Västra Hamnen than in the city as a whole.

Västra Hamnen (the western harbor) has, in a couple of decades, been transformed from an industrial park into a lively district focused on knowledge and sustainable living. Since the closing of Kockums Machine Halls, the district has become home to new parks, swimming areas, business campuses, schools, and residences. The Västra Hamnen campus of Malmö University opened in 1998 and three years later was the opening of the European Home Fair for Boo1. These two milestones marked the beginning of a new urban district coming to life in Malmö.

The aim for Västra Hamnen is to become an leading example of environmental adaptation of a densely built urban district. It will be a powerful demonstration of Malmö's commitment to increased environmental sustainability. The planning, building and construction of the district was guided by an ecological approach.

The first phase of the Västra Hamnen regeneration project was called Boo1. The vision for Boo1 was to create a new and modern mixed use neighborhood, committed to sustainable principles. The development was featured in the 2001 European Housing Expo. The 350 residential units presented at the Expo were comprised of a mix of tenures and were built following a set of guidelines for architectural quality, choice of materials, energy consumption, sustainable transportation, green issues and technical infrastructure. It has served as a model for subsequent phases of development in Västra

Hamnen, which have also been constructed following ecological guidelines and incorporating a sustainability focus.

The most distinctive visual icon of Västra Hamnen is the "Turning Torso" tower (Photo 1), designed by Spanish architect Santiago Calatrava. It consists of nine rotating cubes containing 54 floors, accommodating offices at the bottom, conference facilities at the top, and in between 147 apartments, twisting 90 degrees from top to bottom, with a rooftop observation deck. At 190 meters it is the tallest residential building in the European Union.

Västra Hamnen has received international acclaim, both for its innovative sustainability features and its striking architecture. It demonstrates that modern development can both be environmentally conscious and attractive.

PLANNING PROCESS

Västra Hamnen was primarily used as a port and industrial area, and was home to the Kockums shipyard from the 1990's until the late 1970's when the shipping industry began to decline. In 1979 the Swedish government took over Kockums Machine Halls. By the 1990's the city of Malmö began to recognize the potential of this attractive waterfront area, located close to the city center, and decided to convert this once industrial zone into a new urbanized district with a focus on education and sustainable living. It was decided in connection with Malmö City's Vision Project in 1994/95 to locate a new campus of Malmö University in Västra Hamnen. The university opened in 1998 (*Guide Western Harbor 2009*).



Figure 1: Västra Hamnen Neighborhoods

The city also decided to build an eco-village as an international example of sustainable development. The Boo1 project aka the “City of Tomorrow” was showcased at the 2001 European housing expo. The primary investors in Boo1 were the national government, the City of Malmö, and Sydkraft (a regional power company). The City of Malmö received money from the national government through a Local Investment Program, covering environmental measures in Boo1. This money was used for technical systems, soil decontamination, infrastructure, and educational projects. The European Union also gave financial support for energy efficiency measures, the EU required the developers to conduct a scientific evaluation to learn from Malmö’s experience and share lessons with future projects both locally and internationally. Ongoing research is still being conducted on topics as diverse as soil decontamination, traffic, mobility management, energy efficiency, green structure, storm water reuse,

recycling, and sustainable development (*Malmö Stad Website*).

Expansion of Boo1 continued after the housing expo, including construction of the district’s landmark, the HSB Turning Torso tower. The city authorities regarded a tall building in this location as important in terms of giving Malmö a new landmark, and therefore granted the scheme planning permission.

Newer developments in Västra Hamnen include the residential neighborhoods of Dockan and Flagghusen and the University District of Universitetsholmen (Figure 1). These incorporate high density residential units with businesses, schools, service facilities, parks and recreational facilities. So far 76.5 ha of the total 175 ha have been developed, as seen in Table 1. Plans for Västra Hamnen include three additional residential neighborhoods, in addition to blocks dedicated to education and training facilities, a conference center and concert hall, and office buildings. All of these development projects

Table 1: Developed area of Västra Hamnen

	Land area (ha)
Boo1 (mixed use neighborhood)	22
Dockan (mixed use neighborhood)	11
Flagghusen (mixed use neighborhood)	4
Universitetsholmen (university district)	21.5
Green space	18
Total developed area	76.5
Total land area of Västra Hamnen	175

City of Malmö



Figure 2: Map of Västra Hamnen

are being undertaken with a focus on sustainability. The district is planned to eventually house 10,000 residents and provide facilities for 20,000 employees and students.

The most recently completed development in Västra Hamnen is the Flagghusen residential area, which consists of 16 buildings and more than 600 apartment units. Planning included a dialogue between citizens and the developer in order to develop the best solutions for those involved. Important concerns were safety and security, reasonable cost of living, low maintenance costs, parking, energy efficiency, use of non-toxic substances, and local surface water handling. As a result, Flagghusen has set new standards for social, economic and ecological sustainability, demonstrating that Västra Hamnen is continuing to push forward as a modern example of sustainable development (*Guide Western Harbor 2009*).

KEY POLICY AND DESIGN MEASURES

Västra Hamnen was planned to minimize future transport needs and car dependency, in large part by emphasizing cycling. There are 420 kilometers of cycle paths throughout the city of Malmö, which prides itself on being one of the world's leading cycling cities. In Västra Hamnen alone there are 8,185 meters of new cycle paths. Many improvements have also been made in Västra Hamnen in order to make public transport more attractive, including the addition of buses connecting central parts of Malmö with vital areas of Västra Hamnen (Figure 2). These and other policy and design measures, discussed below, aim to reduce car dependency of residents and make Västra Hamnen a quality place to live.

Bicycle and Pedestrian Infrastructure

Västra Hamnen has a focus on promoting cycling and walking (Photos 2 and 3). Cyclists and pedestrians are given priority in the Boo1 neighborhood and the area is nearly car-free. Cycling and pedestrian paths are incorporated throughout the Västra Hamnen district, including more than 8,185 meters of new cycle paths alone (*Malmö Stad Website*).

A long cycling route runs through Malmö from the southern part of the inner city to Universitetsholmen, the university district in Västra Hamnen. A variety of innovative features are being tested along this stretch, aimed at improving bicycle safety and ease of use. These solutions include rails at traffic lights which cyclists can rest against so that they do not need to put their foot down, and mirrors placed at low-visibility intersections so that cyclists can see what is happening around the corner. Different types of lighting will be tested along the route to improve night time visibility. In addition, several mini service stations have been set up where cyclists can pump air into their tires and carry out simple repairs.

The city of Malmö has even given cyclists priority at thirty traffic lights across the city. Radar sensors have been fitted at these crossings to detect approaching cyclists and give them a green light. This allows cyclists to flow more smoothly in traffic and clearly demonstrates the city's commitment to promoting cycling (*Malmö Stad 2009*).

Public Transport

Västra Hamnen is well served by public transport. At least one bus stop is located within 300 meters of every apartment, and buses run at seven minute intervals throughout the day (Photo 4). Many investments have been made to improve the quality of public transport

in the area. Buses are given priority at traffic lights. Bus stops have elevated platforms to make boarding faster and easier, and many stops now have weather protection to make waiting more comfortable. In addition, over 100 stops across the city are equipped with electronic timetables so passengers know how long they must wait for the next bus to arrive (Photo 5). Real-time bus arrival information is also available on mobile phones using either mobile internet or a downloadable program.

In addition, from the southern border of Västra Hamnen it is just one kilometer to Malmö Central Station. This station will be connected to the Øresund Bridge through the new City Tunnel, which was scheduled to open in December 2010 and will link train travel north of the city to southern connection points including Copenhagen. The City Tunnel will consist of 17 kilometers of railway and 6 kilometers of tunnel, representing the largest investment in public transport in Malmö's history (*Malmö Stad Website*).

Public transportation in Malmö is run by Skånetrafiken, the regional public transportation authority and operator in Southern Sweden. Skånetrafiken uses a zone-based fare system with integrated tickets between different transport modes and for travel between southern Sweden and Denmark. Public transit tickets may be purchased onboard buses, at automated ticket machines in train stations or at staffed customer service centers. In addition, bus tickets can be purchased and displayed on mobile phones. In 2009 Skånetrafiken introduced a contactless smartcard called "Jojo." Patrons can load transit tickets, monthly travel passes and discount travel cards onto this smartcard. Children pay a discounted price and discounts are also available for family members traveling together. (*Skånetrafiken Website*)

Efforts have also been made to reduce emissions from buses. In 2003, a pilot project was launched in which two city buses operating in the area were fueled by a mixture of 8% hydrogen gas from wind power and 92% vehicle fuel (*Guide Western Harbor 2009*). The project was very successful and now a majority of buses in the city use this fuel mixture. These buses are green in color and promote the efficient fuel mixture through a message on the bus stating "Gas bus for a greener and more beautiful Malmö."

Carsharing

In 2005 the city of Malmö started a program (supported by The CIVITAS Initiative) to introduce carsharing to Malmö. The program is part of the city's aim to develop a transport system where citizens are not dependent on traditional private car ownership for all of their mobility. Membership in a carsharing organization can eliminate the need to own a private car and can reduce the number of car trips taken and vehicle miles traveled. The first Sunfleet Carsharing site was opened in 2005 close to Malmö Central Station. In 2006 the second carsharing site was established in Västra Hamnen. During 2007 two additional carsharing sites were opened in the inner city. By the summer of 2008 all five carsharing sites were opened with a total of 15 cars operating in the city and over 200 members. All of Sunfleet Carsharing's cars are green vehicles, which either run on natural gas, biogas or E85 fuel (85% ethanol and 15% petroleum).

A survey found that local awareness of carsharing grew from 28% in 2003 to almost 47% in 2008. By virtue of the shift from petrol to green fuels, there appeared to be a reduction in emissions from the use of carsharing vehicles in Malmö. The emissions reduction estimates for 2008, based on distance traveled by participating vehicles, are detailed in Table 2 (*The CIVITAS Initiative*).

Today there are two carsharing locations in Västra Hamnen. One location is situated next to Boo1 and has seven vehicles. The other location is in Universitetsholmen and has one vehicle (Figure 1). A survey in 2010 found that 3% of Västra Hamnen residents have a carsharing membership (*ITDP Europe 2010*).

Parking

The planners of Västra Hamnen have recognized the importance of limiting parking in order to reduce car use, however implementation of this strategy has proved challenging. Parking in the Boo1 development was limited to 0.7 parking spaces per household, as compared with the typical Malmö requirement of 1.1 parking spaces per household. However, local residents' demand for parking exceeded that available, indicating that the scheme had ecological expectations more ambitious than current behavior warranted. Eventually, a multi-story parking garage was built in conjunction with the HSB Turning Torso (*Roberts 2008*).

The parking issue was readdressed during the planning process of Västra Hamnen's newest neighborhood, Fullriggaren which requires just 0.75 parking spaces per household. The policy is not a restriction on the number of parking spaces allowed to be built; it is a decrease of the number of parking spaces that are required to be built. It does seem that only 0.75 spaces per household will be built, at least initially. The passage of this policy is at least one step towards limiting the number of parking spaces provided in the district (*Magnus Fahl, pers. comm.*).

Västra Hamnen also uses parking pricing to discourage excess driving. The city of Malmö has three parking pricing zones for public, on-street parking, as outlined in Table 3. Like the city center, the neighborhoods of Boo1 and Flagghusen are classified as red zones and therefore have the highest on-street parking fees in the city. The University District, Universitetsholmen, is classified as a green zone. The neighborhood of Docken, however, does not have a parking zone classification and therefore people may park in this neighborhood for free for up to 24 hours.

Urban Design

Over twenty architectural firms were involved in the design of Västra Hamnen. Some of the most notable architects include Swedish architect Klas Tham, architect/planner Ralph Erskine, and innovative Spanish architect Santiago Calatrava. Klas Tham, in particular, was instrumental in the development and conceptual plan of the district, which includes a variety of notable design features.

Street Layout and Design

The street network of Västra Hamnen consists of a mix of individually designed streets, pedestrian ways, alleyways and open squares (Photo 6). Swedish architect Klas Tham himself describes the street layout as a "grid that has been distorted by the wind" (*Natural Space Website*). The district generally has a grid street network, however within the neighborhoods the streets are narrower and take on a more organic form. Further, the inner area of Boo1 is car-free, consisting of only pedestrian ways and cycle paths. This structure makes it easy for cars to cross Västra Hamnen, but provides a safer environment with reduced car traffic within its various neighborhoods.

Public Space Design

Västra Hamnen has several parks including Ankarparken and Daniaparken. The planners wanted citizens to be able to walk from Västra Hamnen to the city center of Malmö through parks and green spaces. They therefore created Stapelbäddsparken, which beyond providing a green pedestrian way also acts as an activity center including cafes, a climbing wall, a skateboard park, and an ecological playground for children. This mix has made the park a meeting place for all age groups, offering a broad range of activities promoting the health and well-being of visitors.

The conceptual planning architect Klas Tham also had the idea to transform a strip of the waterfront into a promenade. While the idea was controversial at first, today Sundspromenaden is a popular place for citizens and visitors to socialize, sunbathe and enjoy the waterfront views (Photo 7).

Table 2: Emissions reductions from shift to carsharing vehicles in Malmö (2008)

Emissions reductions	Percent reduction
2,530 kg CO ₂	42%
1,255 g NO _x	60%
15 g PM ₁₀	12.5%

Author's
elaboration

<http://www.civitas-initiative.org>

Table 3: Pricing by zone for the City of Malmö

	Price per hour	Charging period
Green Zone	10 SEK (1.1€)	09:00–18:00 Weekdays
White Zone	15 SEK (1.6€)	09:00–18:00 Weekdays
Red Zone	20 SEK (2.2€)	09:00–20:00 Weekdays 09:00–16:00 Saturdays

Author's
elaboration



1
Turning Torso
Tower

Västra Hamnen is known for high quality urban design and architecture. Its most famous landmark is the Turning Torso Tower designed by Santiago Calatrava.



2

The inner part of the Boo1 neighborhood is completely car-free. The city built 8 km of new cycle paths through the development.



3
Bike parking
near waterfront



4

All households in Västra Hamnen are within 300 m of a bus stop.



5

Buses offer real-time arrival information at stations and get priority at traffic signals.



6
Plaza in Västra Hamnen

7
Västra Hamnen waterfront



NO RIDICULOUS CAR JOURNEYS

A large number of “ridiculously short car journeys” (journeys shorter than five kilometers) 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 trips by car. One initiative in the campaign was a contest to win a bike by providing the details of a ridiculous car journey made in Malmö. When the campaign was launched in 2007, half of all Malmö residents were aware of it, and as a result, many have since switched their ridiculously short car trips to bike. *No Ridiculous Car Journeys* has gained widespread attention, both internationally and in 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. (*Malmö Stad 2009*)

Table 4: Breakdown of residential unit size in Västra Hamnen

	Area (ha)
Studio (without kitchen)	11%
1 Room	5%
2 Rooms	30%
3 Rooms	36%
4 Rooms	13%
5+ Rooms	5%

City of Malmö

Building Layout and Design

The architectural firms working in Västra Hamnen were given freedom of expression to create new, innovative design structures. One outcome of this is the building layout of Boo1, designed by Klas Tham, which consists of a row of high-rise (5–7 story) flats forming a wall along the sea, creating an effective climate barrier on the south-west side of the district, with a small scale interior including lower rise buildings, pedestrian ways and intimate plazas. This mix gives the area a unique character.

Santiago Calatrava’s HSB Turning Torso tower is another example of innovative design, not only its appearance, which has won international acclaim, but also due to its energy efficiency features and mix of uses.

The housing in Västra Hamnen has a mix of tenures including tenant-owned apartments, rental apartments and private housing. This mix guarantees social diversity in the district. The size of residential units also varies, as seen in Table 4.

Beyond housing, Västra Hamnen contains a mix of uses including Malmö University, the Kickum Fritid Sports Complex, the Salt & Brygga restaurant, Orkanen (Malmö’s new Teacher Training Department), the Malmö Business Incubator (MINC), and many other

businesses, schools, restaurants and other service centers. Overall the district is home to 262 businesses and employs over 9,000 people (*The Western Harbour Facts and Figures 2010*). The development’s expansion plans include additional residential uses, as well as a focus on education, training and knowledge centers.

Mobility Management

Malmö has recognized that simply building a sustainable development is not enough; ongoing effort is needed to encourage residents to adopt sustainable lifestyles. Therefore, Västra Hamnen was provided with its own Mobility Management office to carry out travel habit inquiries, develop informational material, and create campaigns to encourage sustainable mobility habits. One such campaign was recently carried out in Flagghusen. The project, entitled “New Address — New Travel Patterns — Flagghusen,” was based on a similar project implemented by the Ardeo Centre of Excellence for the City of Malmö in 2006-2007. The Flagghusen project, conducted in November-December 2008, consisted of three steps: 1. A welcome letter was sent by mail to residents, 2. Residents were contacted by phone, and 3. Mobility advisors provided customized mobility advice to residents and mailed information based on the telephone conversation. The phone conversations discussed travel habits, attitudes towards different modes of transport, car ownership, how to take advantage of public transit and cycle paths, advantages and disadvantages of different modes of transport, and information on carsharing. Results from the previous study found that it is most effective to approach residents when they are new to a neighborhood and before they establish travel habits, in order to have a greater influence on their travel choices. The aim of the project was to provide tips and ideas on ways to simplify and improve residents’ stay in the neighborhood while taking into account the environment and other residents.

Residents were given various offers, depending on their travel choices, in order to encourage them to use more sustainable modes of transport. For example, those who mainly drive and do not own a bike were offered a free bike for a month. In addition, those owning a car or planning to purchase a car were offered a three month free trial membership to Sunfleet Carsharing. Respondents were also asked what type of mobility information they would be interested to receive. The most popular item was a map of bicycle paths (69%), 47% wanted information on cycling, 34% wanted eco-driving information, and 23% wanted information on carsharing. The idea is that although many residents support the idea of sustainable transport, many need an extra push or incentive to try a more sustainable option for the first time. This first step is often the biggest hurdle to making a change in transport habits (*Ardeo 2008*).

QUANTITATIVE ANALYSIS

Västra Hamnen is located in Malmö, the third largest city in Sweden. The city has recognized transport’s role in producing harmful emissions and has taken many steps to reduce this effect. In particular, Malmö participated in the CIVITAS SMILE initiative between 2005 and 2009, during which the city implemented several measures aimed to reduce car dependency, lower hazardous emissions from city traffic and create a modal shift towards public transport, cycling and carsharing.

Table 5: Västra Hamnen compared to surrounding area

	Västra Hamnen	City of Malmö
Population	4,326	290,000
Area (ha)	76.5*	15,600
Population density (persons/ha)	57	19
Residential units	2,558	146,700
Cars per 1,000 residents	440	480
Car parking spaces/residential unit	0.8	NA
Residents with carsharing membership	3%	2%
<i>Mode share</i>		
Car	23%	41%
Public transit	17%	16%
Bicycle	31%	23%
Walking	29%	20%

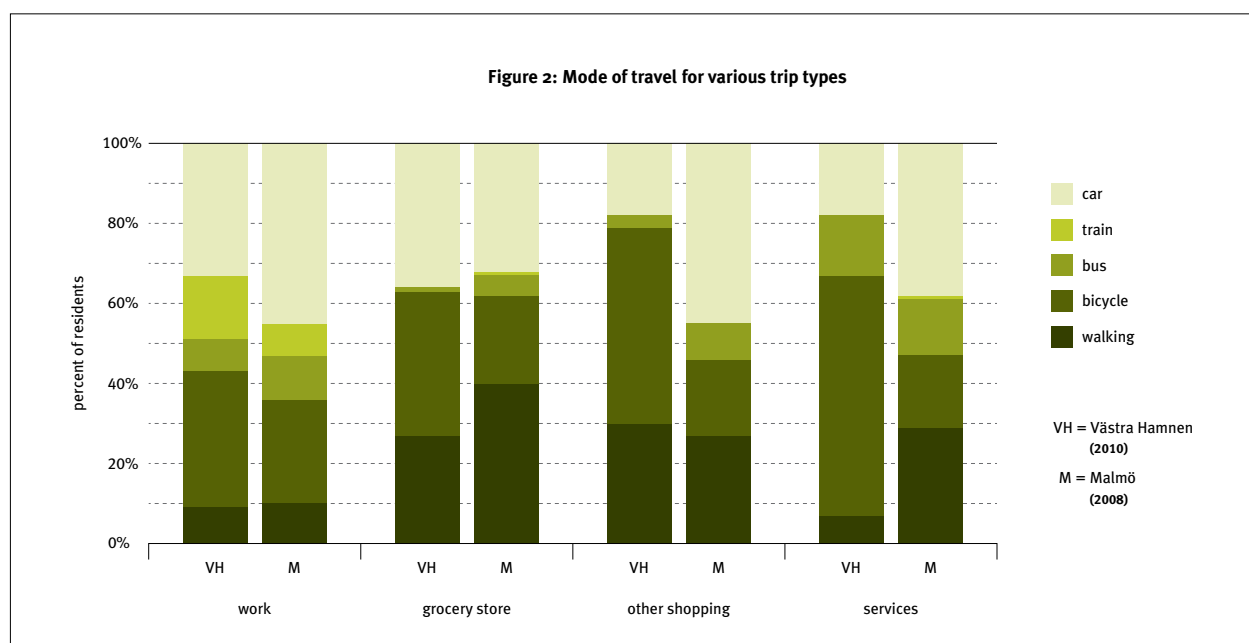
City of Malmö

* current developed area

Table 6: Residential unit densities of various neighborhoods in Västra Hamnen

	Land Area (ha)	Population	Number of Dwellings	Dwelling Unit Density (units/ha)
Boo1 (including Turning Torso)	22	2,293	1,394	63
Dockan	11	943	547	50
Flagghusen	4	1090	617	154
<i>Total</i>	37	4,326	2,558	69

City of Malmö

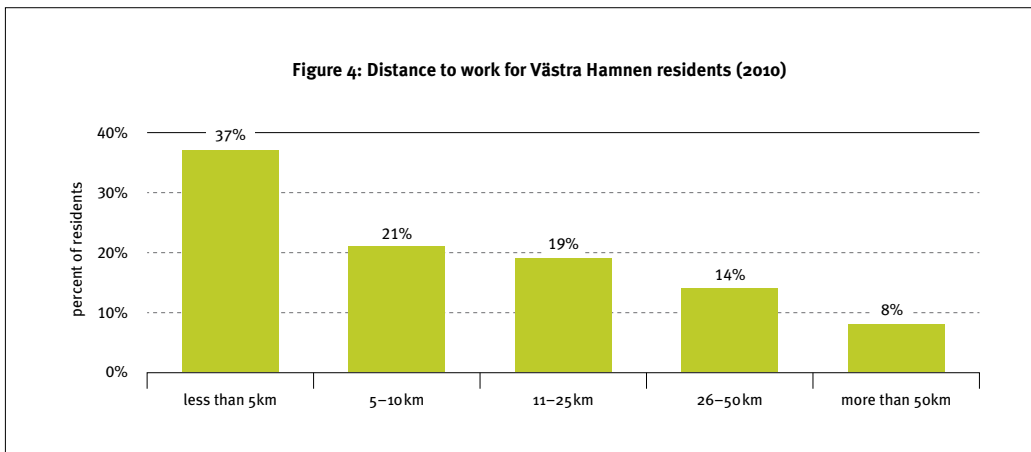
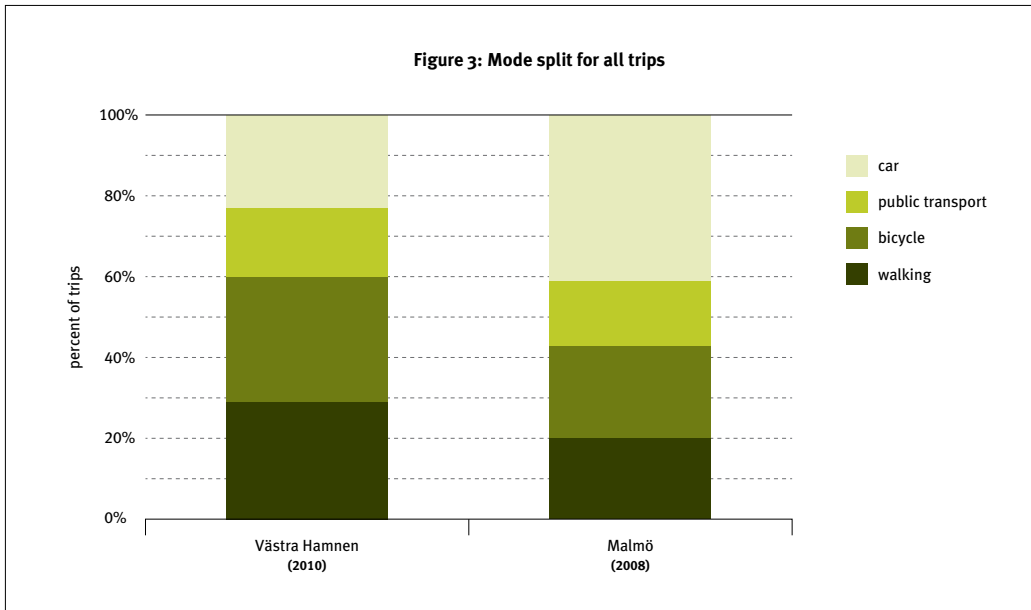


ITDP Europe 2010 and City of Malmö 2008

The following analysis compares statistics from Västra Hamnen to the City of Malmö to show that even within a city as ambitious as Malmö, further reductions in the carbon footprint of residents were possible due to the combination of policy and design measures present in Västra Hamnen.

Density

Västra Hamnen has a more dense settlement structure than the City of Malmö (57 persons/ha in Västra Hamnen versus 19 persons/ha in Malmö), as seen in Table 5. Increased density increases efficiency of resource use. The density of residential units in various



neighborhoods within Västra Hamnen varies, as seen in Table 6. The residential unit density in Flaggghusen is particularly high at 154 units per hectare.

Car Ownership Rate

The car ownership rate is actually quite high in Malmö, and the value for Västra Hamnen is slightly lower. In Västra Hamnen there are 440 cars per 1,000 residents while in the City of Malmö there are 480 cars per 1,000 residents.

Mode Split

Figure 2 compares the mode split of various trip types between Västra Hamnen residents and City of Malmö residents. The Västra Hamnen values come from an internet-based survey of residents conducted by ITDP Europe (in collaboration with the City of Malmö) in 2010; the Malmö values are taken from the city's 2008 resident travel behavior report. The non-motorized mode share for Västra Hamnen is higher than the City of Malmö for all trip types. In Västra Hamnen, 44% of residents commute to work by non-motorized modes (walking or cycling) versus 36% of Malmö residents. Furthermore, a

smaller percent of Västra Hamnen residents commute by car (33% vs. 45%). Västra Hamnen's non-motorized mode share for grocery store trips is only slightly higher than Malmö's (63% vs. 62%), and Västra Hamnen's mode share by car is actually higher (36% vs. 32%). This demonstrates a potential to shift grocery store trips of Västra Hamnen residents to more sustainable transport modes. Västra Hamnen's non-motorized mode share for other shopping trips is much higher than for the city of Malmö (79% vs. 46%) and its non-motorized mode share for service-related trips is higher as well (67% vs. 47%).

Looking at overall trips taken by residents (Figure 3), Västra Hamnen has a more sustainable mode split than the city of Malmö, as seen in Figure 3. 41% of trips made by Malmö residents are by car and only 23% in Västra Hamnen. Further, more trips are made by bicycle (31%) and on foot (29%) in Västra Hamnen than in Malmö (23% and 20% respectively). The share of public transport trips is similar for both.

Distance Traveled

Looking at distance traveled can reveal the potential for using non-motorized travel modes. People are much more likely to walk

or cycle for a trip that is less than 5 km than for a trip that is 25 km or more. According to the 2010 survey, the average distance to work for a Västra Hamnen resident is 18 km (Figure 4) and the average one-way commute time is 30 minutes. Figure 3 shows a breakdown of travel distance to work for Västra Hamnen residents. More than 35% of residents travel less than 5 km to get to work. These short travel distances make it easier for residents to commute by walking, cycling or public transit. Shorter travel distances also help reduce emissions generated by motorized forms of transportation. In addition, 27% of survey respondents stated that they work from home at least one day per week. Working from home reduces the need to travel and thus has the potential to reduce emissions.

Residents of Västra Hamnen also do not have to travel far to get to a grocery store. A third of residents travel less than 500 m to get to a grocery store and half travel less than 1 km. Based on survey responses, it is estimated that the average distance a resident of Västra Hamnen travels to reach a grocery store is 1.2 km. This is not measuring the distance to the closest grocery store, but rather the store at which the resident chooses to shop, which may or may not be the closest store. These short distances make it easy for residents to travel to the store by foot or bicycle. Furthermore, 4% of survey respondents stated that they have groceries delivered at least once per month. Having groceries delivered also has the potential to reduce emissions.

LESSONS LEARNED

Today Västra Hamnen attracts residents based as much because of its attractive location near the water and city center and high quality housing as because of its sustainability features. Therefore, many new residents own cars and want to use them. This has caused increased demand for parking and as discussed, although Boo1 was initially planned as a neighborhood with limited parking, eventually a multi-story parking garage was built to provide more parking. Catering to car users and making the district more car-friendly works in opposition to many of the core goals of the project.

Luckily, the city of Malmö has recognized this issue and is making more of an effort to advertise the district specifically as an eco-district, with a focus on reduced car use and ownership. In addition, a Mobility Management office has been developed to encourage residents to shift away from car use to more sustainable forms of transport such as walking, biking and public transport.

New sustainable districts in other cities should keep in mind that residents are attracted by a variety of features, not just environmental ones. Therefore it is important to market the focus on sustainable living and reduced car ownership from the beginning and also to provide an on-going effort (such as a mobility management office) to encourage sustainable transport habits. ■

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Image credits

Figure 1: googlemaps <http://maps.google.de/maps/ms?hl=en&ie=UTF8&vps=2&jsv=298d&oe=UTF8&msa=0&msid=116478322990710211544.0004925639cfb8b3008bf>
 Figure 2: City of Malmö
 Opening spread photo: La-Citta-Vita on Flickr
 Photos 1, 6: Simon Field, ITDP Europe
 Photos 2, 3: Streets and Parks Department, City of Malmö
 Photos 4: Nicole Foletta, ITDP Europe
 Photo 5: <http://www.norden.org/>
 Photo 6: visitsweden.com, Frederik Tellerup / Malmö Turism