

Sustainable Shared Mobility

Case study: Car Sharing in Housing Developments in Stockholm

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Car sharing in housing developments in Stockholm

The Sustainable Shared Mobility (SuSMo) project aims to catalyse systemic change by instigating behaviour change, enabling connections and collaborations, and removing barriers through policy change. SuSMo brings together leading European cities with experts in the transport sector to provide decision-makers with tools and knowledge to maximise the benefits and mitigate the negative impacts of shared mobility modes. Funded by EIT Climate KIC, SuSMo was launched in 2019 and has worked with city representatives and private sector shared mobility providers to establish the key needs and priorities for the effective deployment of sustainable shared mobility.

The City of Stockholm

With 1 million residents living in the municipality, Stockholm is the most populous urban area in Sweden. The city is situated on fourteen islands on the east coast of Sweden where lake Mälaren flows into the Baltic Sea. This leads to a city where 30% of the area consists of waterways and another 30% is made up of parks and green spaces. This restricts the space that can be used for other purposes like housing and infrastructure, making it a valuable commodity. One of the ways the city of Stockholm hopes to conserve space is to reduce private car ownership, and the accompanying need for parking space, by stimulating shared mobility.

In 2015 the City of Stockholm introduced the Green Parking Permits with the goal of reducing parking spaces, providing access to alternative modes of transport, decreasing costs of construction due to reduced parking needs, and increasing the quality of life. The permits led to the introduction of several car-sharing services in new housing development projects.

As one of the SuSMo partner cities, Stockholm has been involved since the project's start. This case study was the city's first complete mapping of shared car services in housing development since the introduction of the Green Parking Permit system.



In 2020, an evaluation of the existing car-sharing schemes was carried out as part of a case study within the SuSMo project. The aim was to map the existing schemes and evaluate how key stakeholders experience the development of car-sharing services.

Framework for car sharing schemes and lessons learned

When establishing car-sharing schemes in connection to property development, there are three main phases: early planning, operation, and evaluation. Figure 1 shows how these phases fit in the framework for establishment of car-sharing schemes in connection to property development. The framework illustrates that the stakeholder collaboration in all three phases is key for developing successful car-sharing schemes in property development.



Figure 1: Framework for establishing car-sharing schemes.

Policy, Regulation & Procurement

Adopting a strategy for shared mobility within the sustainable urban mobility plan (SUMP) or similar policy document. It is recommended to include a section on how to deal with shared mobility in the city and how it can help to accelerate the transition towards the climate goals.

To find a solid base for collaboration between the stakeholders, improved partnership agreements are needed. This would help define and clarify the roles and responsibilities of the stakeholders in the operational phase, as well as securing long-term relationships among the involved actors.

A structured monitoring and evaluation method is needed to collect and store data. The city administration should be responsible for developing a clear structure, stating which data the property owners and operators are required to share. This will increase the knowledge of the effects of shared mobility, making it possible to identify if and where steering is needed.

Integrated planning of sharing services and public transport through mobility hubs could further enhance the complete offer of sustainable mobility, further decreasing the need for privately owned cars.

Private Sector Engagement

Involve all stakeholders early in the process. This may sound obvious but is often forgotten. Shared mobility operators, building developers and the city should all be involved from the early planning phase to establish a clear view of what all stakeholders need and can offer in return. This also includes communication with the residents, an integrated communication platform will help with clear communication. On-boarding campaigns in order to profile the project from a sustainable mobility perspective and to inform about the possibilities to use shared vehicles should be communicated early to the residents.

After the housing development is completed, when the sharing service is in operation, the collaboration between the operator and the property owner is a key aspect. It is usually a tenant owner association, municipal- or private property owner who takes over responsibility from the property developer. In Sweden it is usually the tenant owner association, often managed by the residents themselves with small or no experience in collaborating with shared mobility operators. In this context developing support and guidelines for tenant associations on how to handle this situation is important.



Figure 2: Shared cars on the street, Norra Djurgårdsstaden. (City of Stockholm)

Behavioural Change

Increase the knowledge of shared vehicle schemes. Property developers and cities need a better knowledge of how the service works. Mapping existing schemes and developing a structure for monitoring is a good start. This also means that operators need to share their information to partner stakeholders.

Increase the commitment and conviction of creating good, long-lasting schemes. Stakeholders should create a framework on how to deal with shared vehicle services as a base for long-term services. They should also be made aware of the benefits and goals of implementing shared services. Incentive programmes for involved stakeholders could be a way to increase commitment.

City administrations should facilitate decisions and establishment of the shared services. They should implement a framework to contribute to clear decision making, giving a clear structure as to which stakeholders are responsible for what and when. Furthermore, frameworks, agreements and incentives programmes should all contribute to the implementation of the services.

To maintain commitment and conviction, regular feedback about the success of the service is essential. New findings, experiences and knowledge from the feedback should be used to update the existing frameworks, agreements and requirements. The stakeholders should discuss this in regular meetings.

Finally a behaviour change framework for potential users should be set up. This frameworks should include at least four elements. Raising the awareness of the benefits of using the service, together with an incentives programme increasing the attractiveness. Advice and support for on-boarding and how to use the service will make the usage as easy as possible. To maintain commitment and conviction of the service, regular feedback should be given about inhabitant usage and gains. Comparing the users to their neighbours or other relevant groups.

How did SuSMo contribute to Stockholm

The study provided valuable insights on how the permit system influenced the implementation of shared mobility, as well as in what locations and what ways the implementation can be improved. The city has been using this information to improve sharing services in property development, from the early planning phase to the operational phase and evaluation of shared mobility schemes, resulting in an ever improving shared mobility network.

