



Action Plan

Climate- and Resource Efficient Attractive Regional Cores in the Stockholm Region

Åtgärdsplan för att utveckla klimat- och resurseffektiva attraktiva
regionala stadskärnor

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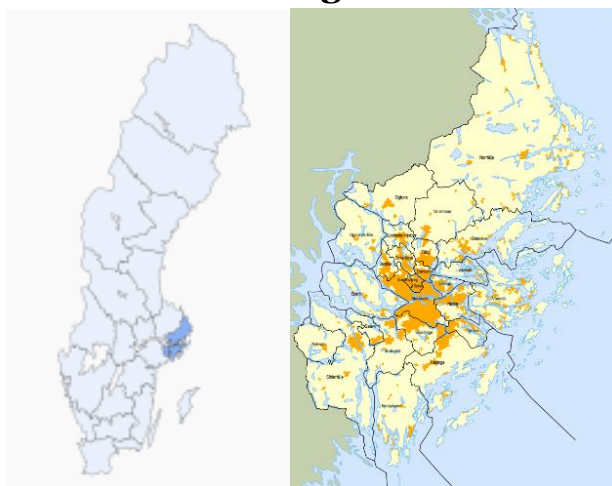
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Part 1. In English

I. General information

Project	SmartEdge
Partner organization concerned	Region Stockholm (former Stockholm County Council)
Country	Sweden
NUTS 2 region	Stockholm
Contact person	Peter Karnung
Email address	peter.karnung@sll.se
Phone number	+4672 46 73 731

The Stockholm region



The Stockholm region follows the administrative boundaries of the county of Stockholm and is both NUTS 2 and NUTS 3 level. It includes 26 municipalities, among them the City of Stockholm, and a total number of inhabitants of more than 2.3 million on 6,500 square kilometres of land.

In Sweden the residence and service sector accounts for about 40 % of the energy usage. In total the sector has lowered its energy consumption in absolute numbers over the years due to extensive energy efficiency actions. Despite these efforts, assessments

show that most of the properties in the county of Stockholm still under perform from an energy usage point of view.

The energy usage in the residence sector is almost completely free from fossil fuels nowadays, as it constitutes only 2 % of the energy used. District heating and electricity are the two biggest energy sources (40 % and 56 %), while the remaining 2 % comes from biofuels. A trend in Sweden and Stockholm is that tenant-owner associations disconnect from the district heating and heats the buildings with electricity. This reduces the economic base of the district heating while it at the same time puts more load onto an already critical grid situation. Thus, energy efficiency measures are important for several reasons, both to lower the climate impact and relieve important infrastructure. The regional cores are, as stakeholders in this project, seen as areas which should lead the way into the future of the Stockholm region. They are to be test beds and model in the transition towards a climate neutral society.

Region Stockholm

The regional body, with the regional parliament and its organisation, is since January 1st, 2019 called Region Stockholm (former Stockholm County Council). Region Stockholm is responsible for public transport and health care in the Stockholm county, as well as the regional planning and regional development/regional growth of the region and culture¹.

SmartEdge

The project

Edge cities are an integral part of the existing metropolitan fabrics. The development of smaller cities within metropolitan areas play a crucial role in the transition towards a low carbon economy. It is a huge potential for reducing the greenhouse gas emission in the metropolitan regions. We believe that by addressing this issue with the perspective of both the region and the edge city, we might be able to support relevant authorities, stakeholders and other actors in the process of creating smart, green and economic solutions.

The overall objective of the SmartEdge-project (Sustainable Metropolitan Areas and the Role of The Edge City) is to improve low carbon economy policies in edge cities and their metropolitan regions. To achieve this, the eight partners from the metropolitan areas of Akershus (now a part of Viken), Barcelona, Brandenburg, Ilfov, Krakow, Milano, Stockholm and the Romanian Ministry of Environment have exchanged experiences in 5 thematic workshops. We have identified good practices, exchanged experiences and facilitated learning between the partner regions and our stakeholders. For each workshop the partners have issued an inventory, described a good and bad practice and at the workshop we have been able to learn from the partners and seen the results in the organized study visit, where practical experiences have been presented and discussed on site or digitally. The last two WSs have been carried out digitally due to Covid 19, while as the site visits will be planned spring 2021 if the Covid status allows us to travel again.

The five themes we have addressed in the SmartEdge project are:

- Multi-level governance
- Participation in urban and climate and energy planning,
- Business development based on energy production,
- Energy efficiency and energy systems in the built environment
- Energy efficiency and energy systems in the transport sector

We have identified innovative tools for urban and energy planning, measures in order to reduce greenhouse gas emissions in transport and buildings, and on the other side institutional or structural barriers that needs to be addressed in order to comply with the overall goal. We have explored the potential for local renewable energy production, reduction of emissions from transport through renewable energy and energy systems and reduction of emissions from buildings through renewable energy and energy systems.

¹ Since January 1st Region Stockholm is also the organization responsible for Structural Funds operational programmes.

SmartEdge has been an important arena to challenge our view on what measures to implement when working with low carbon policies, and we have used the arena allowing our local actors and partners to be exposed to other ways of seeing and solving a policy challenge.

The SmartEdge-project has shown that the challenges in our partner regions are overlapping and, in some cases, the same, but each partner region might have their take on how to address the challenge. The project outputs such as the selected good practice descriptions and regional stakeholder meetings contributes to the Interreg Europe Program by aiding managing authorities and regional and local authorities in improving low carbon economy policies. At metropolitan level the partners have used the experience gained through SmartEdge to set own activities and goals that are presented as an action plan.



The partners met in Brandenburg in phase 1

Regional stakeholders

Region Stockholm has chosen to work with the municipalities with a regional core in the Stockholm county:

- | | |
|----------------------------|--|
| - Södertälje | <i>(Södertälje municipality)</i> |
| - Flemingsberg | <i>(Huddinge and Botkyrka municipalities)</i> |
| - Kungens kurva-Skärholmen | <i>(Huddinge and Stockholm municipalities)</i> |
| - Haninge stad | <i>(Haninge municipality)</i> |
| - Barkarby-Jakobsberg | <i>(Järfälla municipality)</i> |
| - Kista-Sollentuna-Häggvik | <i>(Stockholm and Sollentuna municipalities)</i> |
| - Täby centrum-Arninge | <i>(Täby municipality)</i> |
| - Arlanda-Märsta | <i>(Sigtuna municipality)</i> |

The regional stakeholders have participated in regional stakeholder meetings organized by Region Stockholm. Some of the stakeholders were meant to join for the last two conferences in Milano and Barcelona but due to Covid-19 the planned visits were cancelled.

These nine municipalities represent the growing edge cities of the Stockholm County that have an important role in making the region more polycentric. The polycentric approach has

been identified as very important to tackle issues like traffic, diversification of business and resilience in the expanding region of Stockholm. The transition from a monocentric to a polycentric region is a process which has been in motion for many decades and the regional cores were pointed out as key players in the early 2000's.

The Action Plan in short

The action plan for the Stockholm SmartEdge project is focusing on implementing the regional priority in RUFS 2050 to develop climate and resource efficient regional cores in the Stockholm region. The project will contribute to this priority through actions in energy efficiency in buildings. The actions chosen are:

1. **Establishing a platform for increasing efforts made in energy efficiency measures in publicly owned buildings.**

To increase the efforts to improve the energy performance in buildings, a platform to share information, methods and good practices will be launched. This platform will coexist with already established networks and projects. It will be cooperated with Energikontoret Storsthlm.

As inspiration for this project Stockholm draws upon the experiences shared from the Milano project Virtuous Territories. A preparatory needs analysis was conducted during phase 1.

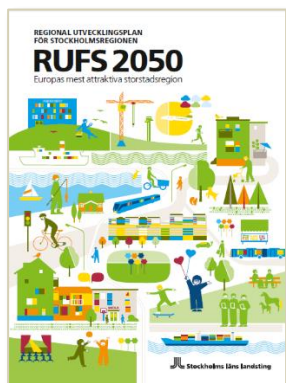
II. Policy context

The Action Plan aims to impact	The implementation of the regional development plan of the Stockholm region, RUFS 2050
Name of the policy instruments addressed	The regional development plan of the Stockholm region, RUFS 2050

The policy instruments

RUFS 2050

The regional development plan of the Stockholm region, RUFS 2050, is the region's plan for the next 30 years of development and growth. It is a regional spatial development plan according to the Swedish Plan and Building Act, as well as a regional growth and development strategy and the regional policy tool.



The plan was adopted in 2018 and is valid until 2026. The plan cannot be changed; hence the aim is to make the action plan contribute to reach the goals of the plan/the implementation of the plan. The action plan will also influence other important policy documents such as the Climate Roadmap 2050.

The plan has four long term goals – before the year of 2050 the region should be:

- An accessible region with good living conditions
- An open, equal and inclusive region
- A leading growth and knowledge region
- A resource efficient and resilient region with no greenhouse gas emissions.

The outlined regional structure aims for a more polycentric approach with interlinked regional cores, urban development close to public transport and resource efficient systems for both people and freight transports.



The long-term goals, targets and regional priorities – and the spatial vision for 2050 – from RUFS 2050.

For the implementation of the regional development plan there are nine chosen regional priorities. The ninth regional priority is “develop climate- and resource efficient regional cores in the Stockholm region” and is a priority for the region as the regional goal is to decrease the annual energy usage per capita to below 16 MWh. Since the residential sector make up such a big part of the energy usage, this cannot be done without achieving large scale energy efficiency measures in the sector.

Other policy instruments

There are some other important policy instruments in the region that also have strong relevance to this action plan.

- **The climate roadmap 2050** has been produced by Region Stockholm and adopted by the Stockholm Region Council Assembly. It is a continuation of the regional development plan RUF5 2050 on the subject of climate mitigation.
- **The regional climate and energy strategy** is produced by the County Administrative Board on assignment from the national government. The strategy has been on consultation during the autumn of 2019 and was approved in January 2020.



III. Details on the action

Action 1. Implement the concept of “one stop shops” to further increase energy efficiency measures in public property and decrease the energy efficiency gap

1. Relevance to the project

The action aims to increase the energy efficiency refits in public buildings. This will lower the energy consumption and operating costs as well as lowering the impact on the climate.

The inspiration to the action comes from the experiences shared from the Milano project “Virtuous Territories” and the Milano programme “+Community”. In the Virtuous Territories project the EPCs (Energy performance contracts) were presented as a solution for implementing energy refits in public buildings. The EPC is a solution where a third party is procured to conduct the energy refit. In the Virtuous Territories project this is combined with the possibility to acquire structural funds.

The initiative +Community is a platform that builds on multilevel governance and aims to share the best partnership resources and increase the skills of the metropolitan territory. It is also meant to be a laboratory to simplify work process, among other things. This platform inspires us to reach out to other major players within the field of energy-efficiency measures and to try to streamline and simplify the energy efficiency processes for our stakeholder.

The example from Milano focuses on one kind of solutions to implement large scale energy refits, but our project will have a wider approach as regards financing the energy retrofits. This is because property owners have different business models and might not be open to the use of EPCs. Therefore, our project will investigate how different companies’ work processes enables different kinds of approaches. Our study will also be influenced by projects conducted in Sweden, to build on already existing knowledge of a Swedish context.

The policy document RUF2050 is adopted by Region Stockholm, hence this action plan will support the implementation of the policy. RUF2050 is a guiding document for municipal planning. Because of this, the actions in our action plan is more hands on than in the Milano project. Our focus is to activate the public stakeholders on a local level.

As a preparatory action, a needs analysis was conducted in phase 1 of the project. Two public stakeholders were chosen to conduct energy audits and a life cycle cost assessment in two public properties. The analysis also included interviews with key actors in the chosen organizations to investigate obstacles for large scale energy efficiency measures. The study was supplemented with data about energy performance in buildings in the region. It concluded that buildings in the Stockholm region generally underperform energy usage wise and that property owners could use some guidance to implement energy efficiency measures. It also contains a handbook which can be useful for the property owners to evaluate different actions on their own.

This need analysis shows that public property owners at local level can do much more when it comes to energy efficiency retrofitting, but there is an information gap hindering this to happen. Many studies nationally as well as internationally demonstrate the existence of a so-called energy efficiency gap, i.e. the gap between what should be carried out from a rational perspective as the technology is obviously cost-effective and what is de facto implemented.

This energy efficiency gap is usually explained by the existence of various obstacles to energy efficiency such as lack of time, lack of information about possible solutions, management's lack of prioritization of the energy issue. To overcome these obstacles, increase energy efficiency retrofitting and reduce the gap between the current level of energy efficiency and the level that would be desirable, actions are required.

Hence, this action will help overcome that gap by establishing a platform for public property owners where experiences are exchanged along with best practices. The Region Stockholm together with Energikontoret StorSthlm will through this facilitate the knowledge exchange and strengthen existing networks with the long-term goal of large-scale energy efficient retrofitting of public buildings in the regions, and hence creating a more climate friendly public property portfolio.

2. Nature of the action

Energy efficiency measures have been conducted in Sweden for a long time and has improved the performance in the property sector. However, recent studies show that a majority of the buildings in Stockholm county are still underperforming energy usage wise. It is difficult for property owners to know where to get information about possible actions to take, to get guidance of how to start a renovation project and how to acquire financial means. In the Stockholm region there are players within the energy efficiency sector that have a lot of knowledge on how to complete a refit project, from start to finish, though there is a need to gather this know-how in one place. The aim of the action, is therefore, to improve an already ongoing process of energy efficiency measures in the region.

The purpose of this action is to initiate a “one stop shop”² network/platform for, in first-hand but not only, public property owners to take part of and share knowledge about energy efficiency measures in properties. The one stop shop will be a competence centre where the property owners will be able to get information about technical assistance to get the most efficient results, different alternative financing solutions that suits their organisation and examples of best practices from other organisations. It is important to show a variety of different measures and methods, since the stakeholders operates differently. Some operators have the know-how inhouse while others will need external expertise. This one stop shop will build upon the aggregated knowledge of different players that works with energy issues in buildings in the region, as well as from the mentioned preparatory study. Region Stockholm will join forces with Energikontoret Storsthlm³ which is a very important player in reaching the public stakeholders. Together we can integrate the platform/network with other ongoing processes/projects which together will benefit the stakeholders.

The action is divided into the following sub-actions:

1. A kick-off to create interest in and share knowledge energy efficiency refits, with the starting point from the pilot study in the preparatory step

² The “one stop shop” concept is part of the Renovation Wave initiative and is supported by the European Commission and the EIB to facilitate energy-efficiency measures in buildings.

³ Energikontoret Storsthlm is a non-profit organization representing the municipalities in Stockholm county. They specialize in supporting municipalities in the matter of energy related issues and have a wide network and knowledge in this area of expertise.

2. Formalising the cooperation with Energikontoret Storsthlm to set the framework and ambitions for the one stop shop
3. Gather information relevant to property owners on good examples of different measures and different projects, on how to finance implementing of measures,
4. Officially launch the one stop shop by gathering property owners to share experiences of does and don't etc.

2.1 Kick off

A first meeting to kick off the idea, present the outcome of the pre-study, gather the target group and further discuss the needs and expectations of the one stop shop.

2.2 Initiate cooperation with Energikontoret Storsthlm to plan the launch of the one stop shop

Region Stockholm has a climate office which will cooperate with Energikontoret Storsthlm to run the one stop shop for property owners to improve the number and quality of energy efficiency measures in the Stockholm region. The organizations already have an ongoing cooperation but the framework of the one stop shop need to be further formalised.

This will be initiated in Q1 2021.

2.3 Gather information relevant to property owners

The information needed to guide the property owners is out there but needs to be collected and put into one place. This sub-action also includes doing an assessment of what kind of information is readily available. For example, there might be not exist aggregated information of what kind of financial means the property owners can apply for.

2.4 Launch the one stop shop

After setting up cooperation between Region Stockholm and Energikontoret Storsthlm for the one stop shop (sub-action 2.2) and after gathering the necessary information (sub-action 2.3), the platform will be launched.

3. Stakeholders involved

This action will mostly include Region Stockholm and Energikontoret Storsthlm. The stakeholders in the SmartEdge project might be consulted when needed. Other organizations such as the County Administrative Board could be an important player for this action.

4. Time frame

All of phase 2.

5. Indicative costs

No cost more than working time for Region Stockholm and Energikontoret StorStlm, indicatively one full time. These costs are approximately EUR 100 000.

Endorsement

This Action Plan has been made as a part of the SmartEdge project's requirements and has combined the learnings of the Interreg Europe-project with the ongoing processes and challenges of the Stockholm Region to help decrease the energy usage per capita in the Stockholm region, one of the nine regional priorities of the Regional Development Plan of the Stockholm Region, RUFS 2050.

The Growth and Regional Planning Administration of the Region Stockholm (former Stockholm County Council) is the policy-responsible body/managing authority for the Stockholm County's participation in the SmartEdge project, and the regional stakeholders participating in the project are Södertälje municipality, Botkyrka municipality, Huddinge municipality, Haninge municipality, Järfälla municipality, Stockholm municipality, Sollentuna municipality, Täby municipality and Sigtuna municipality.



Hanna Wiik

Head of Growth and Planning Administration of Region Stockholm