ACTION PLAN FOR SUSTAINABLE AND CIRCULAR PRODUCTION

in the Stockholm Region

Region Stockholm

Action Plan for Sustainable and Circular Production in the Stockholm Region
RS 2024-0588

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Introduction

THE ACTION PLAN FOR SUSTAINABLE AND CIRCULAR PRODUCTION IN THE STOCKHOLM REGION is based on the Business and Growth Strategy for the Stockholm Region, and will contribute to the vision of the Stockholm region as Europe's most attractive metropolitan region. This action plan is limited to the priority area: Industrial transition through sustainable production, which is one of four smart specialisation areas that have been identified as strategically important for public research and innovation efforts in the Stockholm region[1].

Sustainable and circular production in the Stockholm region

The transition to a circular economy will contribute to achieving the environmental and climate goals, as well as the Sustainable Development Goals of the 2030 Agenda[2]. Sweden has undertaken to achieve climate neutrality by 2045, which will require a transformation of Sweden's society and economy. Sustainable and innovative goods, production processes, services and business models can contribute to the transition and provide growth opportunities for the region's businesses. The companies that best manage the transition will be able to compete successfully in the global marketplace, contributing to both sustainable growth and sustainable societies. This is one of the reasons why Industrial transition through sustainable production is one of the priority areas in the Stockholm Region's Smart Specialisation Strategy.

Stockholm County is the second largest for manufacturing in Sweden

Stockholm County ranks second in Sweden for manufacturing, with around 63,000 employees working in the industry[3] and approximately 20 percent[4] of goods exports. Manufacturing is also an important generator of employment in other sectors. On paper, automation, digitalisation and the servitisation of production companies are leading to a decline in manufacturing employment, while the ICT sector and technical consulting firms, whose business is specifically automation and digitalisation, are growing.

Around a third of all manufacturing jobs are in Södertälje municipality. Other municipalities with large manufacturing industries include Järfälla, Solna, Huddinge, Upplands-Bro, Haninge and Botkyrka. The county is home to both successful large companies and a wide range of subcontractors in a number of industries, including automotive, pharmaceutical, food processing, etc.

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[1] Read more about the Business and Growth Strategy for the Stockholm Region and smart specialisation on page 10.
[2] 2030 Agenda. Agenda 2030 - globala mål för hållbar utveckling - Svenska FN-förbundet (2030 Agenda – Sustainable Development Goals – UN Association of Sweden)
[3] Tillverkningsindustrin i Stockholms län, 2020 (Manufacturing industry in Stockholm County), 2020 Tillverkningsindustrin i Stockholms län (regionstockholm.se)
[4] Styrkeområden i Stockholmsregionen, 2023 (Areas of strength in the Stockholm region, 2023) Stockholmsregionens styrkeområden (regionstockholm.se)

Challenges and opportunities

One of the global challenges is the high consumption of resources at a time when the availability of raw materials and minerals is in decline. This brings a risk of raw material shortages, higher prices and increased regulation. According to the Circularity Gap Report, the transition to resource-efficient, circular flows could reduce Sweden's material use by 42.6 percent[5].

To secure their future competitiveness, the Stockholm region's small and medium-sized enterprises need to accelerate their transition to more sustainable production through electrification, automation and digitalisation. Developing the required knowledge is not easy, but even more challenging is building the capability and resources to translate this into practical business development and, as a subcontractor, managing the transformation at a pace that is fast enough to meet the changing demands of major customers. Improving resource efficiency in manufacturing companies not only places new demands on design, production and reuse, but also on the development of new business logic for the individual company and for new types of cooperation between companies in different industries. Another challenge is the uncertain geopolitical environment, which is driving the relocation of supply chains and the development of new ecosystems of collaborating companies in a quest for more robust and resilient business models and reduced environmental impact.

As the world increasingly recognises the importance of living in a more sustainable manner, demand is growing for goods and services that reduce the environmental impact of human consumption. As a result, new business opportunities are emerging with sustainable and innovative goods and services that bring added value to entrepreneurs, society and the environment.

Companies in the Stockholm region are way ahead

Many companies in the Stockholm region are at the forefront of steering towards sustainability, and play an important role in driving the development of a sustainable, internationally competitive Stockholm region. The region is leading the way when it comes to sustainable production and lean manufacturing in ongoing initiatives and collaborations between academia, business and public-sector actors. The ambition is for the Stockholm region, by harnessing leading research and acquired industrial know-how, to be an international role model when it comes to sustainable and circular production in symbiosis with the rest of society.

[5] The Circularity Gap Report. CGR Sweden (circularity-gap.world)

Production

This action plan has been produced in consultation with Södertälje Science Park (SSCP), which in turn has facilitated dialogue and meetings with representatives from companies, trade associations, universities, research institutes and other support actors at local, regional and national level. Relevant studies and reports have also been used to inform the development of this action plan.

Implementation

The smart specialisation action plans are implemented in collaboration between Region Stockholm and actors relevant to the smart specialisation area in question.

Implementation of the action plans is coordinated within relevant groupings or networks. If necessary, a coordination group is formed. In accordance with the recommendations from the European Commission, initiatives and development in the priority areas for smart specialisation must be continuously monitored and evaluated. Region Stockholm does this within the framework of action plan follow-up and feedback to the government. If necessary, the activities of the action plans are adjusted during follow-up.

Goals and activities

Four goals and associated activities have been formulated for the Action Plan for Sustainable and Circular Production in the Stockholm Region, based on the vision and goals for the development of the Stockholm region set out in the Business and Growth Strategy:

GOAL 1:

Public sector supports industry's transition to sustainable and circular production

Activities:

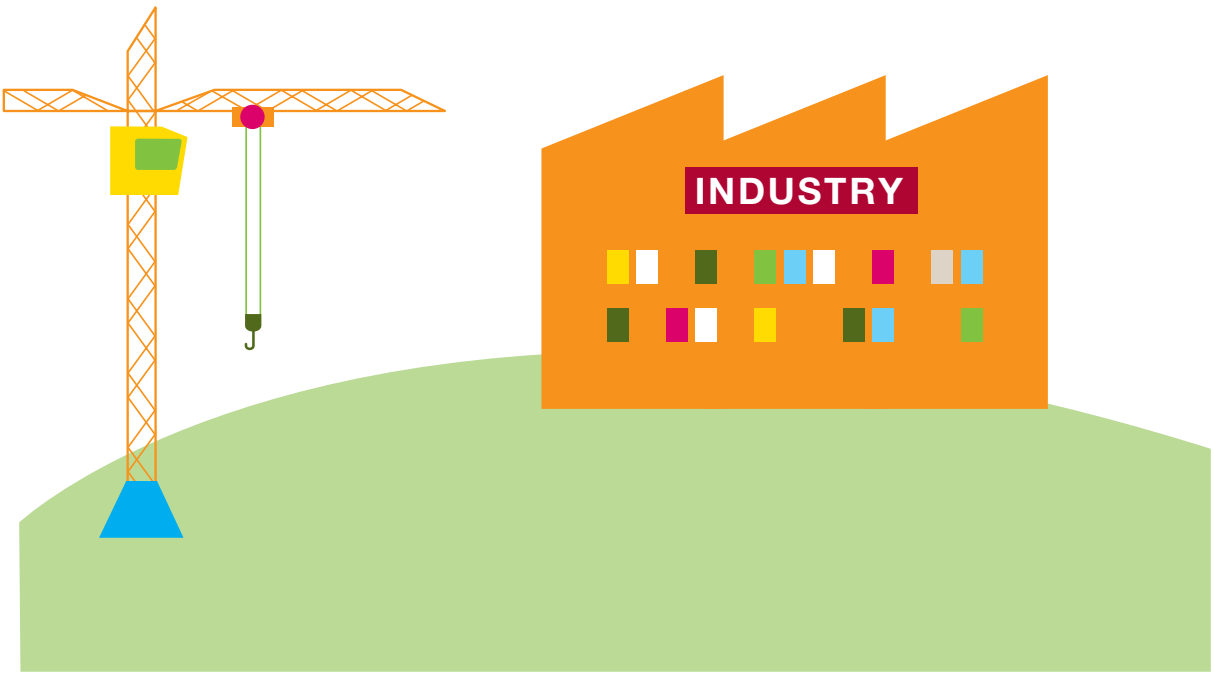
1. Promote simpler rules and identify interpretations and applications of regulations that hinder the implementation of sustainable and circular production.
2. Use public procurement as an incentive to drive the transition towards sustainable and circular production.
3. Improve financing opportunities for the transition to sustainable and circular production by providing guidance and support for businesses and organisations to access (public) regional, national and international (EU) funding programmes, private equity and grants.

GOAL 2:

The business and innovation support structure promotes industry's transition to sustainable and circular production

Activities:

1. Develop and communicate an actor map in the field of sustainable production in the Stockholm region, indicating companies, academia, institutes, industry organisations and support actors (landscape map).
2. Develop and evaluate three pilots (lighthouses) of applied circularity in and around the manufacturing industry and investigate the environmental, social and economic impacts. This is to demonstrate how circular industry, for example in the automotive, pharmaceutical and food industries, adds value and is an essential tool in the transition.
3. Promote the establishment of business models in SMEs that contribute to circular, low-carbon production methods.
4. Develop a resource mapping exercise to look at the potential for industrial symbiosis – where one actor's waste products become a resource for another actor.
5. Promote research and innovation for sustainable goods and services in collaboration between the public and private sectors. Implement targeted investments in research areas and innovation environments exploring new production applications that contribute to sustainable production.
6. Develop the use of regional city centres as testbeds for new ideas and innovations in sustainable and circular production.
7. Explore opportunities for building a pilot line for battery production.
    a. Establish/build a pilot line where different battery chemistries can be tested and evaluated.
    b. Test different production methods and materials to identify the most sustainable options.



GOAL 3:

Value-adding national and international collaborations contribute to new, innovative solutions in sustainable and circular production

Activities:

1. Actors in the Stockholm region participate in national and international initiatives, conferences and events that focus on industrial transition, sustainable production and electromobility. This provides opportunities to share knowledge, identify trends and exchange experiences with others.
2. Establish networks and platforms (e.g. at the SSCP) where companies in the same sector can collaborate and share best practice to promote circular production, such as Industrial Development Centres (IDCs).
3. Establish a forum focused on circular production, where businesses, organisations, academia and the public sector can collaborate, exchange ideas and develop new solutions together.
4. Build partnerships with other regions (e.g. Västerås, Uppsala, Örebro (ÖMS)) and countries that are leaders in selected strategic areas. Exchange experiences and identify common challenges to promote circular production and develop sustainable solutions.
5. Disseminate good examples of national and international circular solutions and ecosystems via forums, events and meeting places.

GOAL 4:

Capacity to develop and attract the most advanced expertise in sustainable and circular production is strengthened in the Stockholm region

Activities:

1. Analyse and communicate the skills provision needs of businesses to manage the transition to sustainable and circular production. What are current and future skills needs, and what do actors need to do to respond to those needs?
2. Initiate and create the conditions for a leading sector-focused skills system in the industry-relevant regional city centres in order to develop, retain and attract the right skills.
3. Support the transition through skills development in SMEs.
    a. Develop, stimulate and create the conditions for a transition towards sustainable production in the region's SMEs via skills initiatives for lifelong learning.
    b. Create mentorship programmes to transfer knowledge and experience in sustainable production within SMEs from experienced industry experts to new talent.
    c. Implement targeted measures at SMEs to strengthen strategic work at board and management level towards sustainable transition.
4. Develop and test new pathways for career transition to industry enabled by targeted recruitment and shorter transition training programmes.
5. Develop cooperation between manufacturing companies via the sustainable production node and technical colleges and universities to increase the appeal of careers in sustainable production. Organise workshops and competitions for school students to raise their awareness of sustainable production.
6. Establish a Technology College (Teknikcollege) in Stockholm County.

Smart specialisation in the Stockholm region

The Business and Growth Strategy for the Stockholm region, which is also the region's Research and Innovation Strategy for Smart Specialisation, was adopted in June 2021. The Business and Growth Strategy is a concretisation of the Stockholm Region's Development Strategy RUFS 2050, and will contribute to the vision of the Stockholm region as Europe's most attractive metropolitan region and the following goals:

- a leading growth and knowledge region
- an open, gender equal, equitable and inclusive region

A strategic direction with four focus areas has been identified based on global trends, the strengths and challenges of the Stockholm region, extensive analyses and broad dialogue with the region's actors through discussions, workshops and written input. The four strategic focus areas to strengthen and develop are:

- Research, innovation and smart specialisation
- The competitiveness of small and medium-sized enterprises (SMEs)
- Internationalisation, exports and investments
- Strategic skills provision

In connection with the 2014–2020 Structural Funds period, the EU Commission launched the concept of regional research and innovation strategies for smart specialisation as a condition for funding initiatives for research, innovation and technological development via the European Regional Development Fund (ERDF). The aim is to identify and prioritise a limited number of key areas where public funding for research and innovation is expected to have the greatest benefit, and where regional actors have the right conditions to develop international competitiveness.

Based on regional areas of strength in business, research and the public sector, a regional analysis and buy-in process was initiated in 2015, through which four smart specialisation areas were identified as strategically important for public research and innovation initiatives in the Stockholm region. In many cases, these are clearly anchored in various regional city centres and their research and innovation environments or clusters. These prioritised areas are:

- Life science, care and health (there is a specific strategy for this area: Life Sciences Strategy for the Stockholm Region RS 2019-0751)
- ICT, tech and digitalisation
- Industrial transition through sustainable production
- Climate and environmental initiatives for sustainable urban development

The areas prioritised for smart specialisation will be strengthened and developed through actions from the four strategic focus areas.

To achieve the vision and objectives above, several actors may need to take action, both within their own organisations and jointly. Action plans are being developed with a number of more specific goals and activities to create collaborative arenas for coordinating implementation.