

AGENDA

Make in Sweden 2030



KNOWLEDGE, CO-OPERATION & TECHNOLOGY

Produktion2030 is a Strategic Research and Innovation Platform. The aim is to increase competitiveness in Swedish manufacturing industry, through co-operation between industry, academia and research institutes.



THE PLATFORM

Produktion2030 is a strategic research and innovation platform supported by VINNOVA, the Swedish Energy Agency and Formas.

Produktion2030

Our vision is to work towards competitive and sustainable manufacturing industry in Sweden. To realize the vision, we need to transform new know-how from research and development into innovation. We also need to increase and strengthen the cooperation between manufacturing industry, academia, and research institutes. Produktion2030 aims to be a meeting place and a platform for actors in the production area.

Produktion2030 is a strategic innovation platform supported by VINNOVA, Swedish Energy Agency and Formas. The goal is to ensure that Sweden remains to be a competitive production country. We do this by translating industry challenges to relevant and innovative solutions for the industry; We build and strengthen networks and cooperations, both in Sweden and internationally; and link ideas, actors and funding opportunities to create valuable solutions for the future manufacturing industry.

We are spearheading the development of an innovative and efficient production in Sweden.

Sweden has more global manufacturing companies per capita than any other country in the world

The manufacturing industry is a pillar of the Swedish economy and a foundation for our employment. Many Swedish companies used the potential of digitalization at an early stage. So far, we have maintained our com-

petitiveness on an increasingly tough global market. Now we need to gather power around the production area to further develop the industry in Sweden. We do this to ensure future welfare and jobs, but also to make sure that Sweden is doing well internationally as a manufacturing country for advanced products and services.



CECILIA WARROL,
PROGRAMME DIRECTOR
PRODUKTION2030

»Sweden is home to many world leading manufacturing industries. To increase their competitiveness it's vital to invest in innovation, digitalization and education.«



»Public investments in industrial relevant R&D and innovation is vital for Sweden's competitiveness. Produktion2030 is by comparison one of the most efficient platforms I am aware of for co-creation involving industry, academia and research institutes.«

JAN-ERIC SUNDGREN, PROFESSOR, FORMER EVP AT VOLVO GROUP AND CHAIRMAN OF PRODUKTION2030

Our operations

Produktion2030 aims to renew and strengthen the competitiveness of Sweden's manufacturing industry. Through innovative knowledge, strong partnerships and cutting edge technology, Produktion2030 contributes to Sweden's attractiveness as a production country. In this way we create growth and welfare together.

I. Projects

Produktion2030 conducts calls for (I) idea projects, (II) research and innovation projects and (III) testbed projects. On our website produktion2030.se you will find information about ongoing and completed projects. You can filter the projects based on their areas of strength and whether they are ongoing or completed.

II. Small and medium-sized enterprises

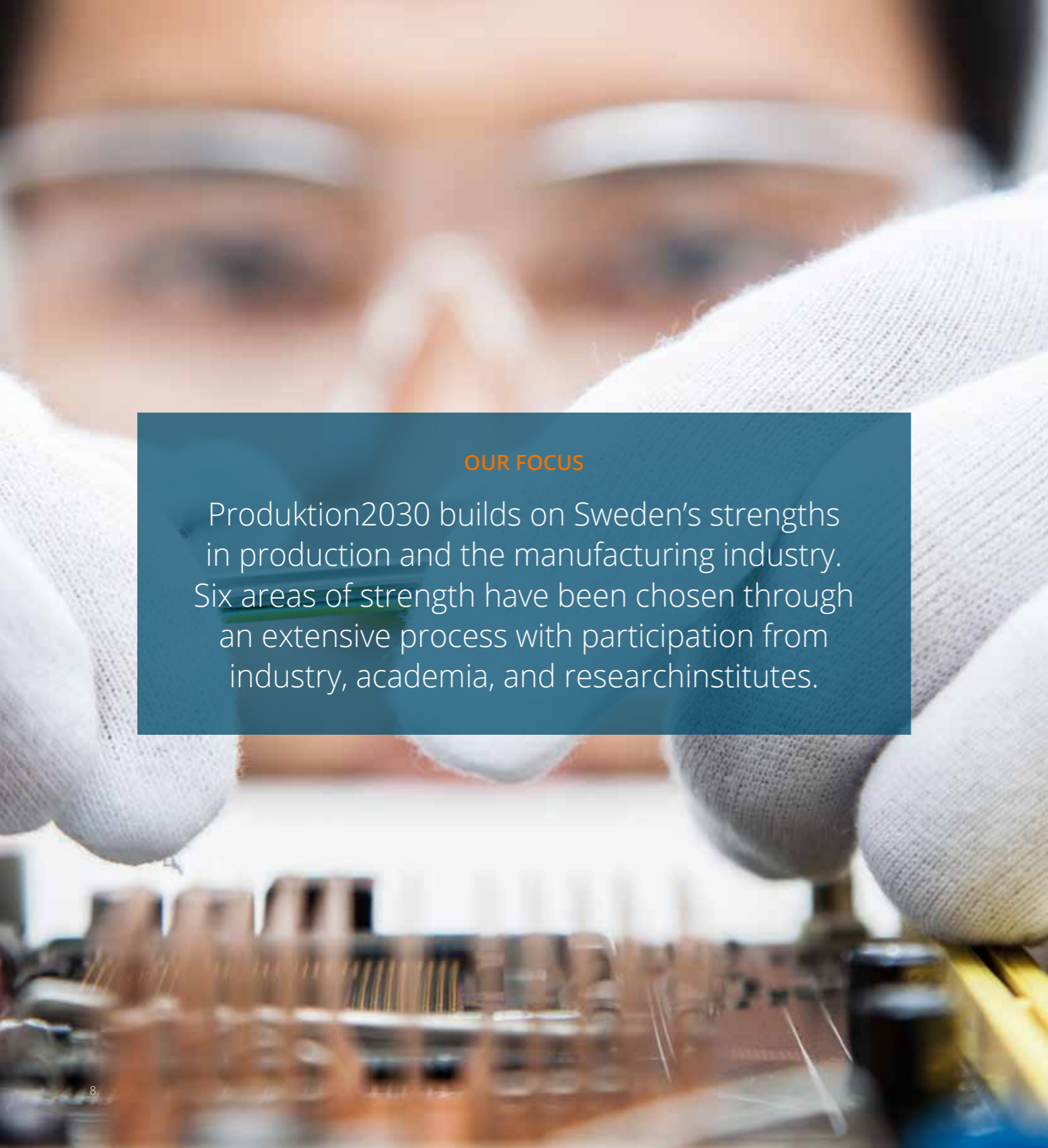
Small and medium-sized enterprises (SMEs) play an important role for the competitiveness of the Swedish industry. Produktion2030 packages and distributes results from projects to SMEs all over Sweden. Together with regional industrial networks, we conduct workshops and seminars for companies and other stakeholders. If you are a smaller company, we offer you to test new technical solutions, within our areas of strength.

III. Education

Access to competence in manufacturing is key to industrial development and production investments in Sweden. Higher education in the production area should be characterized by strong collaboration between industry and academia. Produktion2030 organizes a national PhD School in production since 2014. Starting in 2017, courses for M.Sc. in Industry 4.0 will be available. All our activities in education involve collaboration with industry.

IV. Internationalisation and analysis

International networking and collaboration is an important part of Produktion2030's operations. We collect international experiences and business information through study trips and presence in Brussels. Produktion2030's research and innovation council continuously analyses national and international trends.



OUR FOCUS

Produktion2030 builds on Sweden's strengths in production and the manufacturing industry. Six areas of strength have been chosen through an extensive process with participation from industry, academia, and research institutes.

Our focus

Produktion2030 focuses on six main challenges and areas of strength where the Swedish industry, academia and research institutes are internationally competitive. At the same time, these strengths require continued investments in order to strengthen Swedish manufacturing industry's competitiveness in the longer term.

Sweden can take a global leadership position where we solve challenges in the production area, thus strengthening the competitiveness of the manufacturing industry. The six areas of strength have been prioritized through dialogue with a large number of industry, academic and research actors. The strengths are also in line with the EU's priorities for industrial research and innovation.

Digitalization and sustainability

Digitalization and sustainability are cross-cutting themes that affects all parts of the production chain, and is a prerequisite for securing future production in Sweden. Sustainability includes economic, environmental and social sustainability and is a matter of course for future production.

Areas of strength

01: Resource-efficient production

Minimize resource consumption and environmental impact in production systems and products.

Resource-efficient production is a prerequisite for manufacturing in a country like Sweden with high wages, quality levels and material costs. Resources such as materials, people, energy, capital and time must be used efficiently for the production to be competitive. Research and innovation within this field requires a holistic view and affects all life cycle phases for products and production systems.

02: Flexible production

To further develop manufacturing processes to match demands of customers in the future.

Present and future consumers demand increasingly customized and individualized products. It places great demands on flexibility in the production. Flexible production can handle volume changes, different variants, new materials and combinations of materials. We need new knowledge, innovative manufacturing methods and automation solutions. Automation and digitalization contribute to flexibility through, for example, simulation or integration of systems to achieve decentralized management and monitoring of the production process.



Sweden is the first choice for the development and production of advanced goods and services.

03: Virtual production

Converting information and data into knowledge and decision support in virtual and physical production systems.

Virtual tools and digitized models are essential for developing future complex products and production systems. In tomorrow's factories, basically everything is connected to the internet. It provides the ability to collect and analyze large amounts of data, which in turn allows the production to be developed virtually. The digital twin helps the company to make the right decisions by optimization of complex data and development of smart production strategies.

04: People in the production system

Strengthen cooperation between humans and automation, develop people's potential and increase productivity and flexibility.

Although the future industry is digital, humans still have a vital role. Complex, virtual and flexible production requires competent people to collaborate with advanced automated production systems and robots. Digitalization, sensors and large amounts of data impose new demands on personal safety, wireless communication, interfaces and allocation of tasks between people and technical systems. Technological development brings virtual and global networks, it also enables access to information regardless of language. New technical solutions also make it possible to develop new working methods and ergonomics.

05: Circular production systems and maintenance

To develop systems for circular production and smart maintenance.

Circular production strategy, such as re-manufacturing, is a way to enable smart and resource-efficient products and production systems. The shift towards a circular economy and circular production requires new design at the product and production levels. Through smart maintenance, new combinations of materials and components, and data analysis, the life expectancy of products and production systems can be extended. To achieve this, we need to develop data analytics, skills and develop new services.

06: Integrated product and production development

To strengthen the product development processes as well as tools for innovative product development.

A product must create value for all actors in a supply chain. The development of products and production systems needs to be parallel, integrated and to be done faster, to meet market demands for speed and flexibility. Strengthening the integration of product and production development is key to competitive manufacturing companies.

A large number of companies, universities, and research institutes all over Sweden are involved in Produktion2030

»Produktion2030 is great at translating manufacturing research into innovation and useful results. The strong collaboration between university researchers and industrial experts is a key to success.«

PROFESSOR JOHAN STAHRE, CHALMERS UNIVERSITY OF TECHNOLOGY, CODIRECTOR OF PRODUKTION2030





info@produktion2030.se
produktion2030.se

VISION

Towards Competitive and Sustainable
Manufacturing Industry in Sweden.

COORDINATOR



Teknikföretagen

FOUNDERS

swerea
swedish research



CHALMERS



**The Swedish
Production Academy**

FUNDING AGENCIES

With support from:



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