



Johanneberg Science Park
Annual Report 2018

TURNOVER

31 003 k SEK

The founders are the two largest owners, the City of Gothenburg and Chalmers University of Technology. The revenue comes from our shareholders, partners, project funds and property owners, Chalmersfastigheter and Akademiska Hus, as well as from the Västra Götaland Region.

EMPLOYEES

20

In 2018, 20 people (12 women and 8 men) were employed at Johanneberg Science Park AB, which is an increase of two persons compared to the previous year.

NEW PARTNERS

1

In 2018, Husqvarna signed a partnership agreement with Johanneberg Science Park and at the same time, initiated a pilot study for the creation of a test bed for the maintenance of urban green areas.

EVENT - VISITS

3 356

Johanneberg Science Park welcomed 3,356 visitors to 53 activities in 2018, such as breakfast seminars, workshops and study visits.



Johanneberg Science Park does not develop by itself, but is a result of co-creation. As the network around us grows and the diversity broadens, we grow stronger and can create new opportunities for innovation.

Great cooperation is what makes a Vinnväxt application go all the way, what enables the Celsius project to continue to spread knowledge about heating and cooling in Europe and what makes new ideas thrive – who would have thought that the batteries from ElectriCity's electric buses could be used to store solar energy in a new residential building?

I would therefore like to thank all our partners and owners for their commitment to contribute to the development of Johanneberg Science Park. Thanks also to all of you who come here, participate in our activities and contribute to keeping our common innovation environment alive!

Our door to cooperation is always open to old as well as new friends. Together we create Sweden's best collaborative arena for sustainable urban development!

Mats Bergh

CEO Johanneberg Science Park

AREA DEVELOPMENT



The palette of test bed environments in the area around Johanneberg Science Park was expanded in 2018 with several innovative development projects.

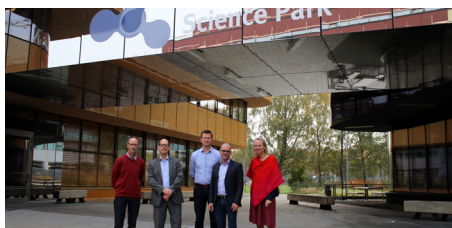
The development of Akademiska Hus A Working Lab continued throughout the year and Johanneberg Science Park pushed the strategic planning to get the surfaces inside and between the buildings on both sides of Sven Hultin's Plats to complement and

strengthen each other.

In addition, parts of Riksbbyggens Brf Viva, where Johanneberg Science Park participates in a number of innovation projects, were ready for occupancy during the autumn.

The Etablera initiative continued to attract new tenants by highlighting and lifting the various activities taking place on campus in a number of articles on the website and on social media.

HUSQVARNA NEW PARTNER FOR GREEN INNOVATIONS



In 2018, Husqvarna signed a partnership agreement with Johanneberg Science Park and at the same time initiated a pilot study for the creation of a test bed for the maintenance of urban green spaces.

- Husqvarna has a strong innovation capability and is a leader in the development and manufacture of products for maintaining green spaces. The collaboration with JSP provides an opportunity to develop

and evaluate new sustainable solutions for the management of parks and other green spaces in cities, as well as collaborating with other key players in urban development, says Kalle Lind, Husqvarna.

The focus of Johanneberg Science Park's activities has so far mainly been on built environment, energy, materials and mobility, but the company is now looking forward to taking on outdoor environments.

- With Husqvarna we will have a new partner, who with their strong focus on electrification and digitization gives us new networks and visions on how we can create increased quality of life for people in our green cities together, says Göran Havert, Business Development Manager at Johanneberg Science Park.

NEW PROJECTS

A selection of projects, with Johanneberg Science Park in a leading and/or collaborative role, initiated in 2018.



CELSIUS INITIATIVE

In 2018, Johanneberg Science Park was commissioned to lead a continuation of the successful CELSIUS project, led by the City of Gothenburg between 2013 and 2017, to drive the development of district heating and cooling in European cities. With funding from Climate-KIC and the Swedish Energy Agency, the Celsius Initiative is working on disseminating knowledge and networking on issues relating to heating and cooling.

During the autumn, the Celsius Summit conference was held in Brussels, where a joint manifesto was signed and submitted to the European Commission.



INDU-ZERO

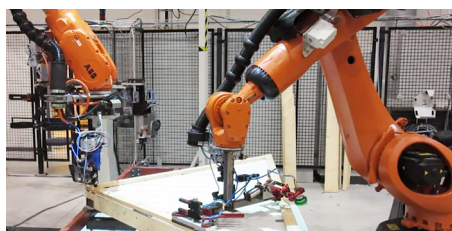
Many older buildings and homes in Europe need to be renovated and be made energy efficient. In a new project funded by the European Regional Development Fund, 14 organizations and companies from six countries in north-western Europe will jointly design a factory that will be able to mass-produce

special renovation packages with the goal of cutting the current price in half. Johanneberg Science Park and the Building Future Institute are the two Swedish partners who are involved in the project.

MANUFACTURE IN WOOD

The EU, through the Swedish Agency for Economic and Regional Growth, is granting SEK 7 million in support for the project Manufacture in wood to create a test environment and a development centre for industrial wood production in Västra Götaland.

- Our role will be to broker partnerships and maintain a dialogue with property owners. Virtually the entire construction sector is developing and scaling up its work with wooden house construction, so most of our partners will be able to be involved in the work during the project, says Peter Selberg, project manager Johanneberg Science Park, one of a total of 19 partners in the project led by Innovatum.



ENERGO

In 2018, Johanneberg Science Park, Chalmers Ventures and GU Ventures received a joint assignment from the Swedish Energy Agency to strengthen start-ups and SME companies in the region. The purpose is to contribute to a transformation of the energy system both in Sweden and globally in the long and short term. The initiative, called EnerGo, will gather start-ups and SMEs in the energy field in a cluster and through a number of activities promote knowledge exchange, cooperation and financing opportunities.

MAJOR INITIATIVE: WESTERN SWEDEN TO BE WORLD LEADING IN SUSTAINABLE INDUSTRY



The West Sweden Chemicals and Materials Cluster is granted SEK 51 million by Vinnova for a ten-year commitment to fight climate change in Western Swedish industry.

The vision is to go from being a fossil-dependent industrial region to a region where the industry is world-leading in the production of chemicals, materials and fuels based on renewable and recycled raw materials.

The initiative is expected to halve the amount of carbon dioxide emissions, create up to 500 new job opportunities and up to ten new green chemistry companies in the region.

- It is gratifying that Vinnova chooses to invest in sustainable development in this sector together with us, says Birgitta Losman (MP), Chairman of the Regional Development Board.

Specifically, the initiative involves paving the way for a refinery for recycling plastic waste and a production plant based on renewable raw materials, improving the use of forest raw materials and increasing resource efficiency through digitization.

- Western Sweden is the heart of Sweden's processing industry. The majority of Sweden's refinery capacity as well as its largest concentration of chemical industries is found here. Having many major players backing us means that we have good opportunities to succeed in realizing a change over the next 10 years while maintaining competitiveness and

long-term growth in the region, says Caroline Löfgren, from Johanneberg Science Park, who will lead the project together with RISE Research Institutes of Sweden.

The initiative, called Klimatledande Processindustri (Climate Leading Processing Industry), was one of the winners in Vinnova's competition Vinnvåxt, where regional innovation initiatives focused on growth areas that have the potential to achieve international success, receive long-term funding. It has a total budget of

SEK 116 million and is led by Johanneberg Science

Park and RISE in close collaboration with the Västra Götaland Region.

- We are pleased to get the backing from Vinnova, Region Västra Götaland and other parties to head this initiative together with Johanneberg Science

Park. This is well in line with our mission to strengthen business competitiveness and contribute to a sustainable development. The challenges will engage our expertise in digitization, process engineering, recycling, renewable raw materials and demand large-scale interdisciplinary capabilities, says Markus Norström at RISE.

The initiative involves the entire West Sweden Chemicals and Materials Cluster with about 40 members from academia, industry and the public sector, all of whom have the transition to non-dependence on fossil fuels and the promotion of circular socioeconomics high on their agendas.



RESULTS

A selection of results and implementations of projects where Johanneberg Science Park has had a leading and/or collaborative role.

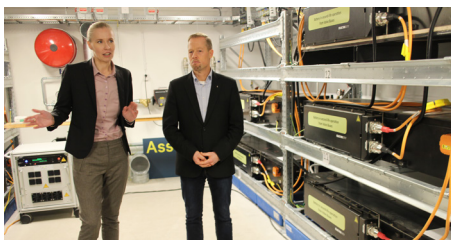
MOVING INTO BRF VIVA

In November 2018 the move into Riksbyggen's Housing Association (brf) Viva started at Guldheden in Gothenburg.

With the aim of creating Sweden's most innovative and sustainable housing project, Brf Viva is based on solid research within Positive Footprint Housing, PFH.

Solar panel installations, energy storage, recycling of heat from ventilation (FTX), car and electric bicycle pools, remote workplaces and resource-efficient construction in climate-smart concrete show the way to sustainable housing.

The project was initiated by Riksbyggen in collaboration with, among others, Johanneberg Science Park, Chalmers University of Technology, Gothenburg University, Göteborg Energi, the City of Gothenburg and RISE.



SOLAR ENERGY IN BUS BATTERIES

Brf Viva is now testing a unique system where energy from solar panels on the roofs is stored in recycled electric bus batteries from route 55. With the help of the energy storage, flexibility in the use of energy is created and the properties' energy peaks can be reduced.

The energy storage also helps to streamline the surrounding electricity grid in the city. The project is a collaboration between Riksbyggen, Volvo, Göteborg Energi and Johanneberg Science Park, supported by



the EU project IRIS – Smart Cities, where Johanneberg Science Park coordinates Gothenburg's commitment.

KLIMAT 2030

Within the Klimat 2030 initiative of the Västra Götaland Region, Johanneberg Science Park has a coordinating role within the focus area Healthy and Sustainable Homes and Facilities as well as the initiative Greater Market for Bio-based Materials and Fuels.

The focus during the first full year of the project has been on mapping, interviews and analyzes in order to get an overall picture of the setting and understand where the greatest potential lies and what support is needed. A number of forums and panel discussions have also been arranged.



DISSEMINATION



Over the year, Johanneberg Science Park had 3,356 visitors to 53 different activities, but also presented itself at conferences and meetings both nationally and internationally. Here are some examples.

POLITICAL AFTER WORK

Before the 2018 elections, Johanneberg Science Park arranged a series of panel discussions about safe cities, the digital community, future transport and built environment, where the political parties met with representatives from JSP's partner companies.



EU SUSTAINABLE ENERGY WEEK

The EU project FED – Fossil-free Energy Districts, coordinated by Johanneberg Science Park, was presented, together with the three other energy transition projects within the Urban Innovative Actions program, at the EU Sustainable Energy Week in Brussels.

PARTNER MEETING IRIS – SMART CITIES

In March, representatives from the 43 partners from nine countries included in the EU project IRIS – Smart Cities met at Johanneberg Science Park for sharing knowledge and experiences, study visits and networking. Gothenburg is one of three Lighthouse cities in the project, aimed at spreading smart solutions in energy, mobility and ICT.



SME SEMINAR AHEAD OF COP24

Johanneberg Science Park's network for SMEs is regularly invited to seminars. On December 10, 2018, nearly 200 people attended a half-day seminar preceding the international climate summit COP24. In honour of the Nobel day, the hosts Katarína Nordström (Johanneberg Science Park) and Kent Rundgren (Chalmers Industrial Technology) chose to really dress up.

Partners



City of
Gothenburg

CHALMERS
UNIVERSITY OF TECHNOLOGY



AKADEMISKA HUS



Vi bygger det hållbara samhället för framtiden



HSB – home of opportunities



SKANSKA



VOLVO



Funding Agencies



EUROPEAN
REGIONAL
DEVELOPMENT
FUND



Funded by the Horizon 2020
Framework Programme of
the European Union



Johanneberg Science Park - Sweden's leading collaborative arena for urban development

We co-generate innovations for a society that is good for people and the environment. We bring together academia, society and a variety of large and small companies. Together we run national and international innovation projects and test solutions for future challenges.

Our partner network consists of the City of Gothenburg and Chalmers University of Technology together with AB Volvo, Bengt Dahlgren AB, Förvaltnings AB Framtiden, Göteborg Energi, HSB, Husqvarna AB, MölnDala Fastighets AB, Peab AB, Riksbyggen, Tyréns AB, Skanska, Wallenstam, White Architects, Akademiska Hus, Chalmersfastigheter, Västra Götalandsregionen, West Sweden Chemicals and Materials Cluster, and more than 150 small and medium-sized companies.