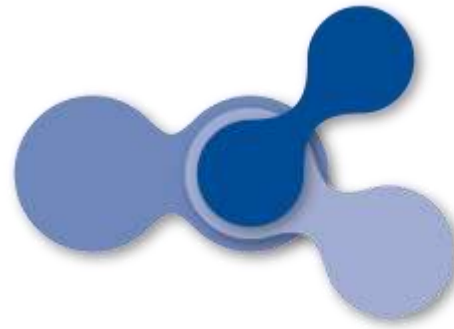


**Croatian President
Business delegation visit to
Johanneberg Science Park**

Thursday 23 of March 2017 GOTHENBURG – SWEDEN



**Johanneberg
Science Park**

PROFILES

Sustainable Urban development


Energy

Materials/Nanotechnologies



Program 23th of March, Johanneberg Science Park

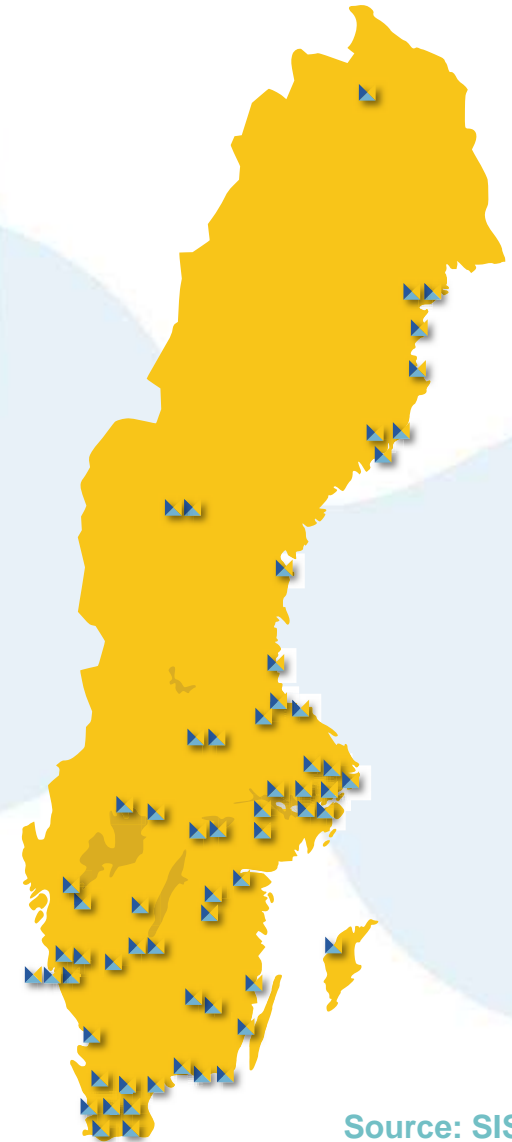
- 10.15 Arriving at Johanneberg Science Park, Café Ooto
- 10.30 Presentation/Introduction Johanneberg Science Park
- 10.45 City of Gothenburg, Vision for the Future
- 11.00 Positive Footprint Housing
- 11.10 Smart Sustainable District- Climate KIC
- 11.20 ElectriCity
- 11.45 Lunch Restaurant Ooto
- 12.40 HSB Living Lab
- 13.30 Departure



GOTHENBURG
INNOVATIVE AND SUSTAINABLE CITY
– OPEN TO THE WORLD

Innovation in Sweden

- ✓ Triple helix-based nodes in regional innovation system
- ✓ 80 Areas of Innovation
- ✓ 6 Science Parks in West Sweden of which 3 in Gothenburg
- ✓ Ca 5000 growth companies with 72000 employees



Source: SISP

<https://www.youtube.com/watch?v=loIQp9ed5hE>



JohannebergSP

- Meeting point for Enterprise, Research and Development.
- We strengthen competitiveness, attractiveness and growth.
- Increasing the pace for solutions to create sustainable cities and reach the 17 UN global goals.
- Our owners are our founders. City of Gothenburg, Chalmers University of Technology and industry.



Partners - funders



Göteborgs
Stad



HSB - där möjligheterna bor



AKADEMISKA HUS



CHALMERSFASTIGHETER



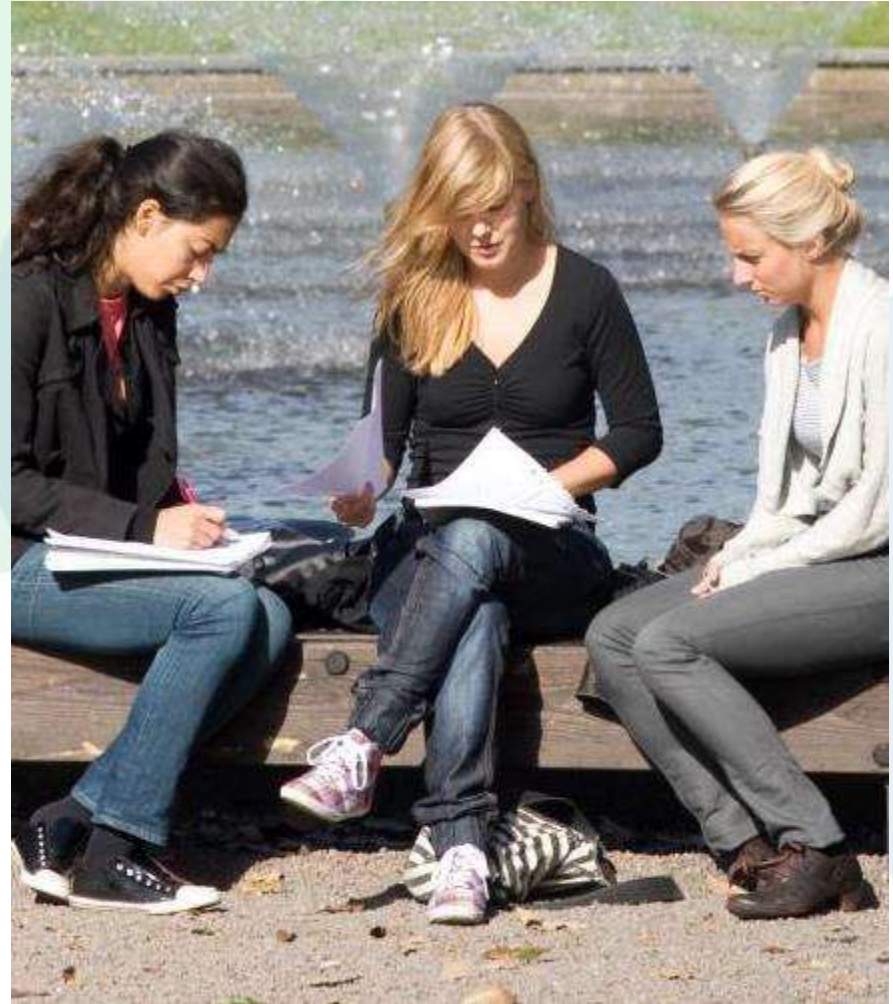
Climate-KIC



EUROPEISKA
UNIONEN
Europeiska
regionala
utvecklingsfonden

The area we are located in

- 3000 university staff
- 8500 students
- 1500 employees in 150 businesses
- 1 100 graduate students
- 1 incubator
- 300 000 m² office space
- 403 000 m² science park area
- 15 science park staff



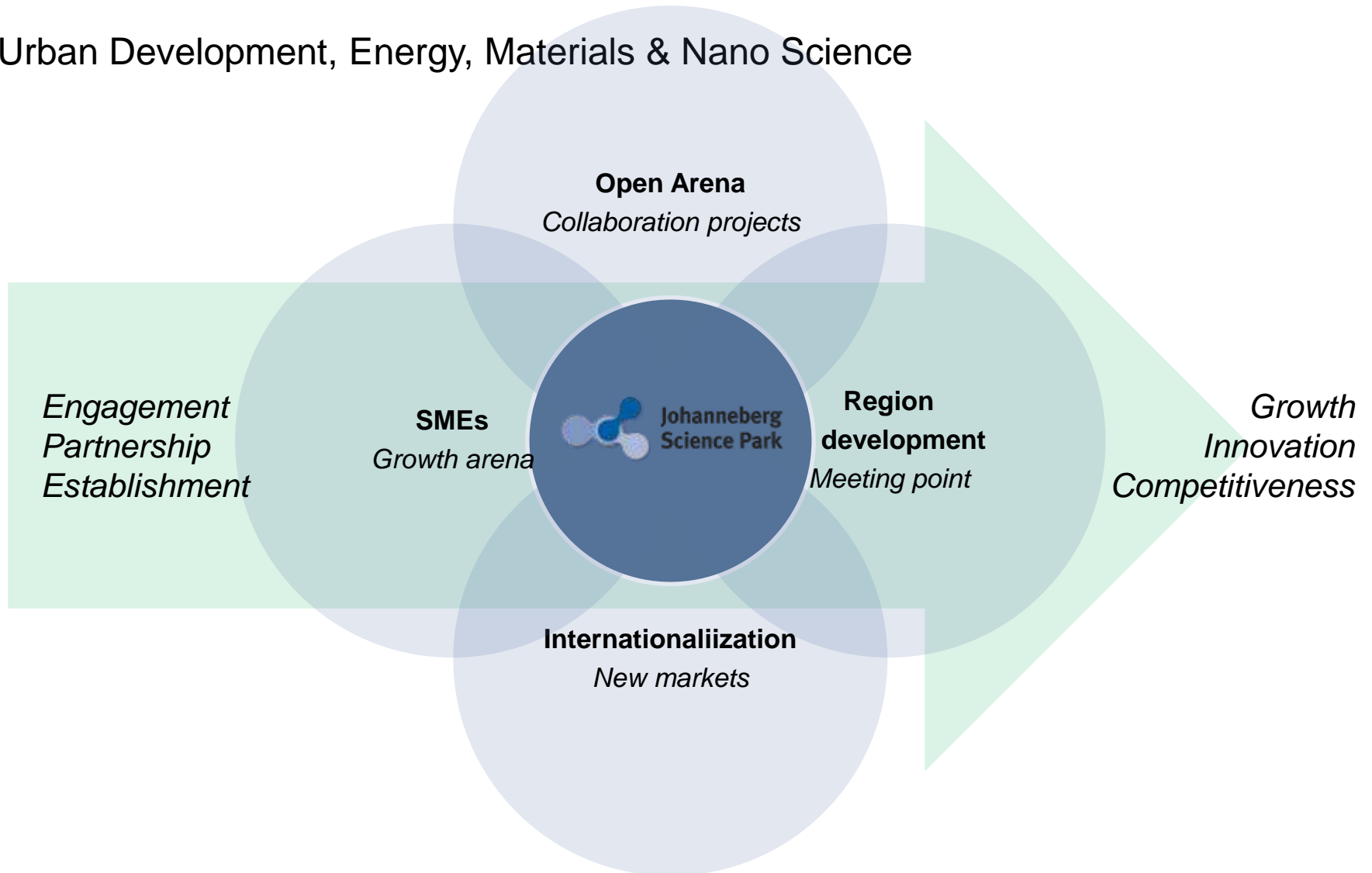
Goal

- 4000 new jobs in the area
- 40% large Swedish companies
- 30% Swedish SMEs
- 30% international companies
- 100 000 m² of new office space



Activities

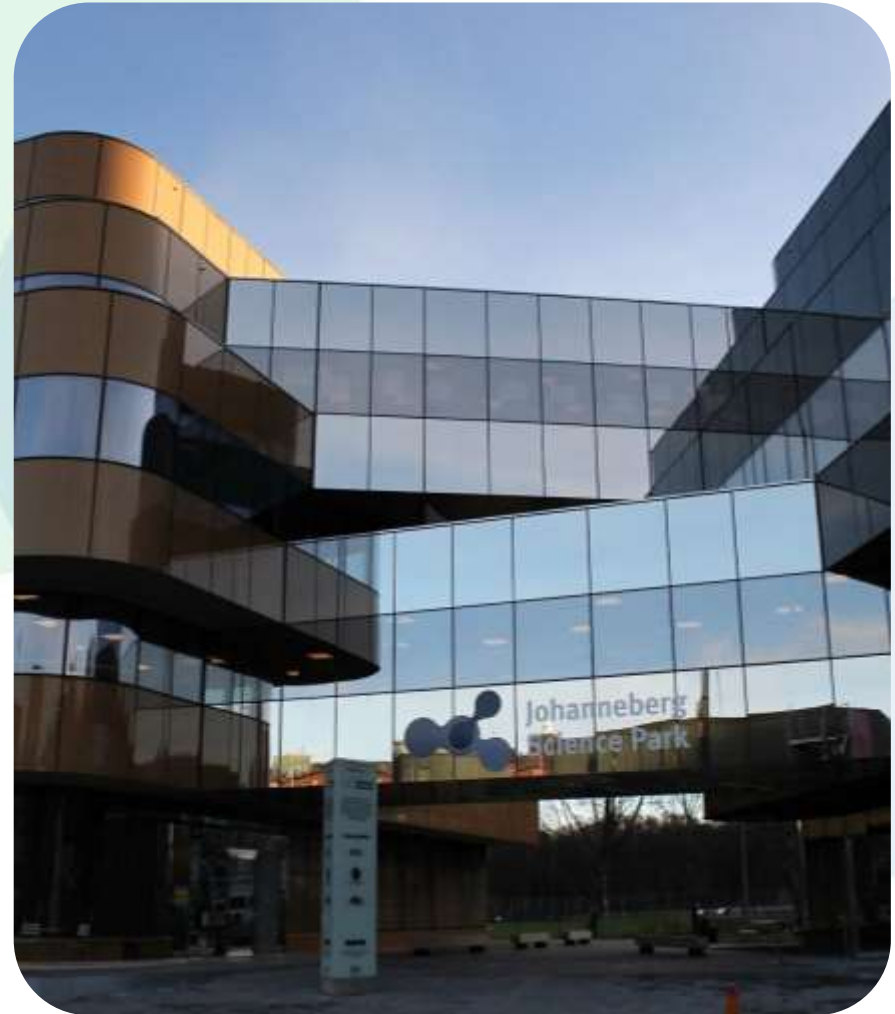
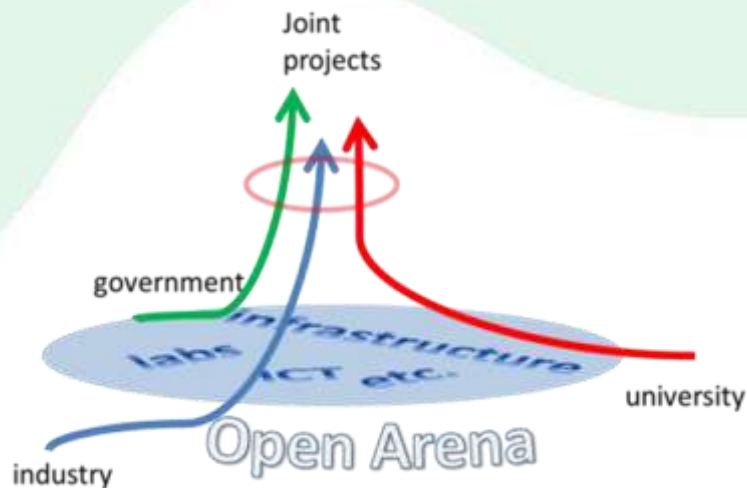
Urban Development, Energy, Materials & Nano Science



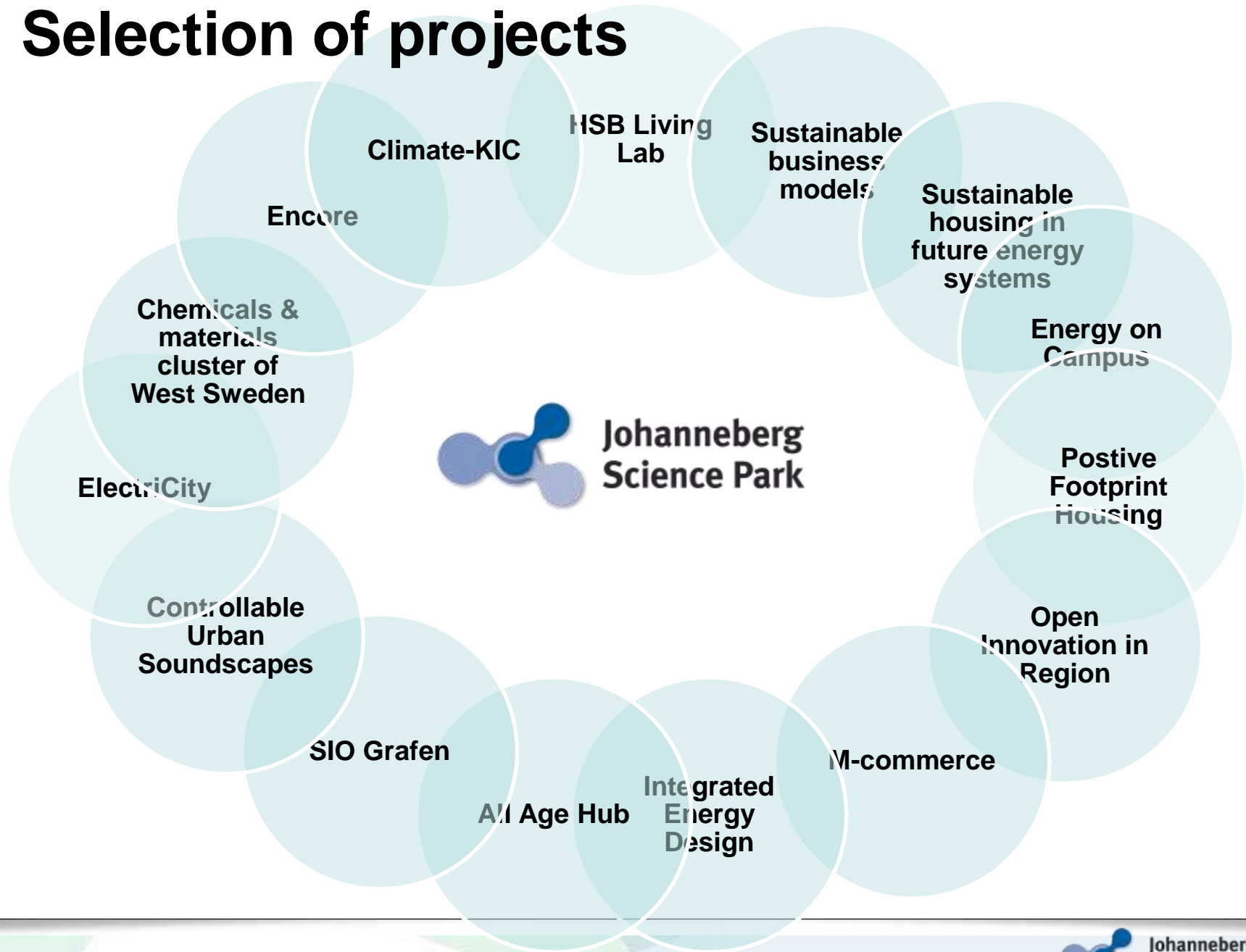
Johanneberg Science Park

Open Arenas

- ✓ Collaborative
- ✓ Neutral
- ✓ Open
- ✓ Application oriented



Selection of projects



A scenic view of a river in Göteborg, Sweden, with historic buildings and a church tower in the background. The water is calm, reflecting the sky and the buildings. The sky is a clear, bright blue. The buildings are multi-story, with many windows. The church tower is a prominent feature, with a clock face and a cross on top. The overall atmosphere is peaceful and historic.

Andreas Göthberg,
Head of Foreign Direct Investment

Business Region Göteborg



BUSINESS REGION
GÖTEBORG

Growth in Gothenburg region since 2000

170,000

NEW RESIDENTS

2000-2016

117,000

MORE JOBS

2000-2015

61%

HIGHER REAL WAGE SUM

2000-2015

60 %

HIGHER REAL GRP

2000-2014

40 %

HIGHER PRODUCTIVITY

2000-2014

Source: Statistics Sweden

Strong clusters in the Gothenburg region



INFRASTRUCTURE
AND LOGISTICS



LIFE SCIENCE



CHEMICAL
INDUSTRY



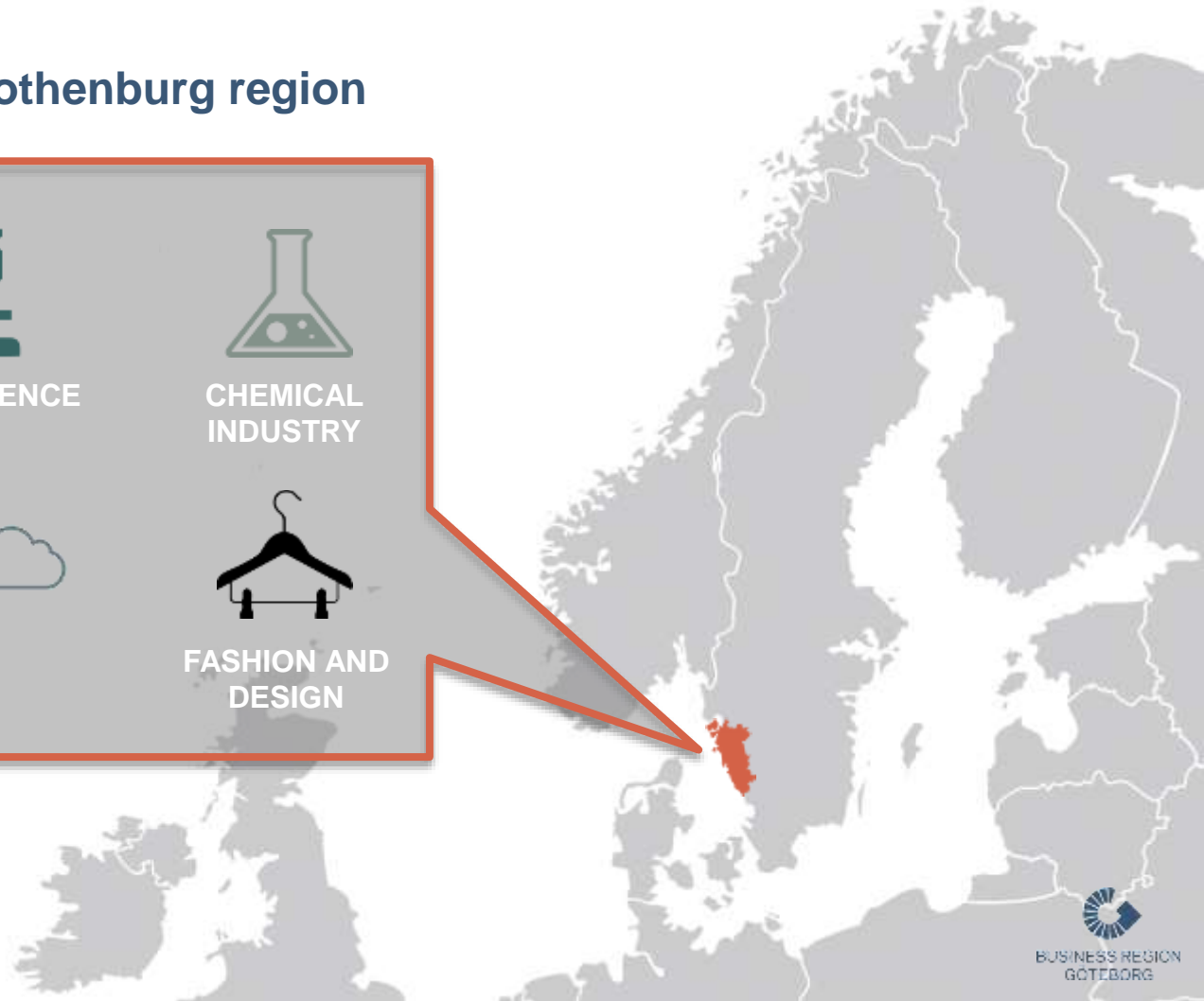
AUTOMOTIVE



ICT



FASHION AND
DESIGN



BUSINESS REGION
GÖTEBORG



BUSINESS REGION
GÖTEBORG

Home of Global Innovators

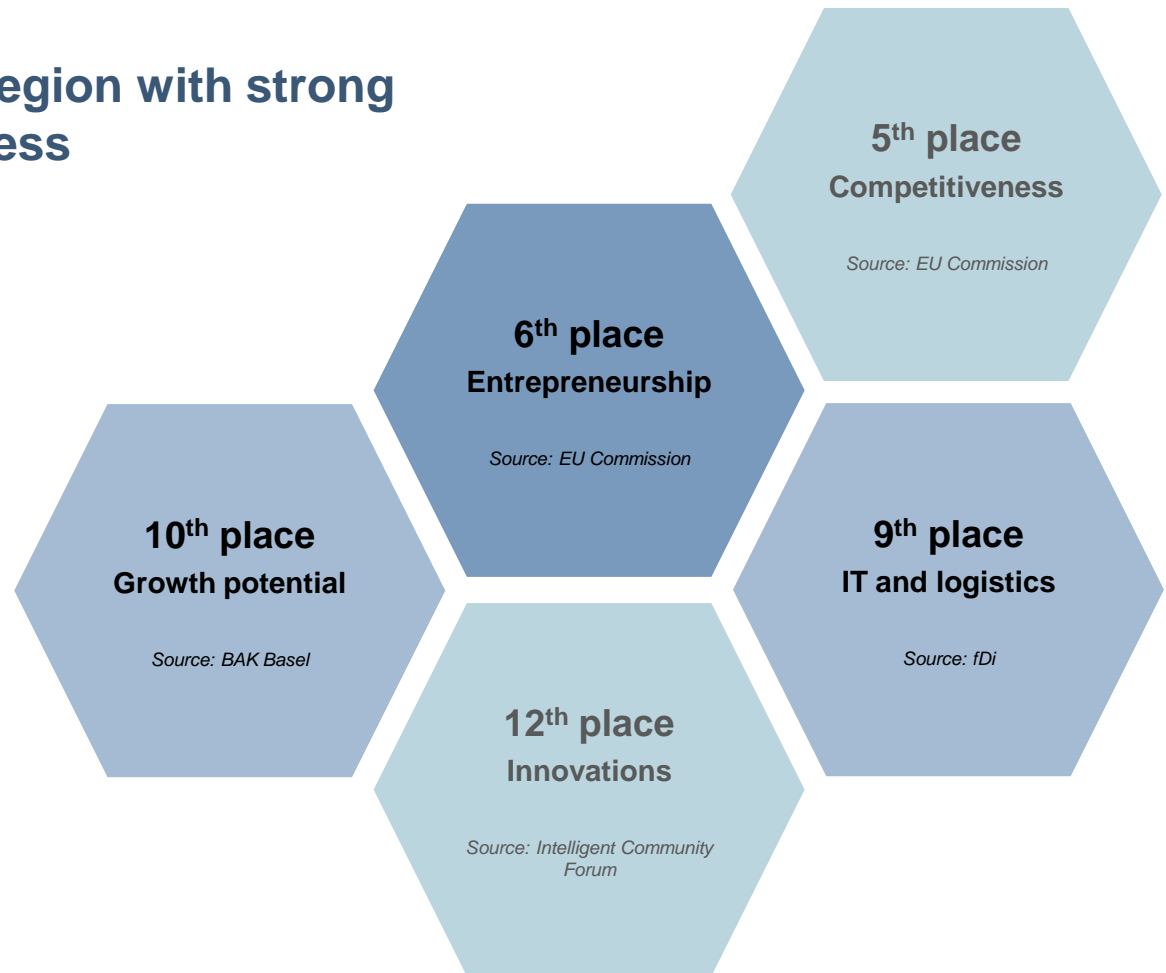




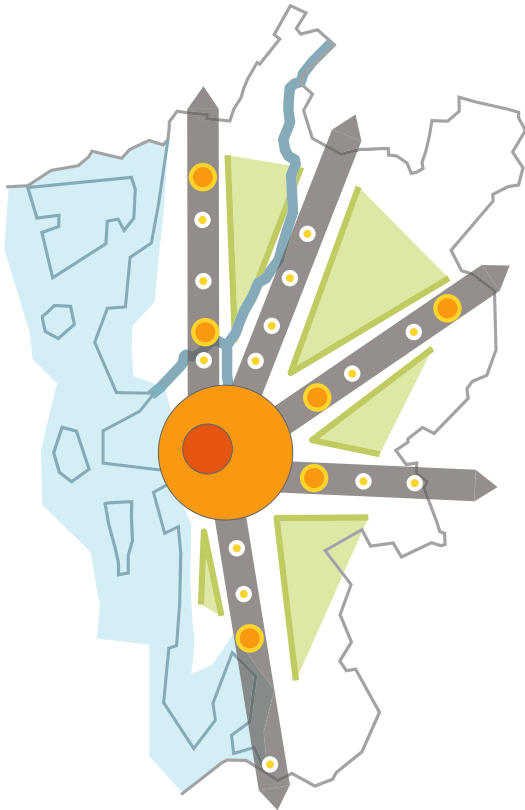
A world leading research region with strong international competitiveness

22 %

of Sweden's R&D investments are made in the Gothenburg region




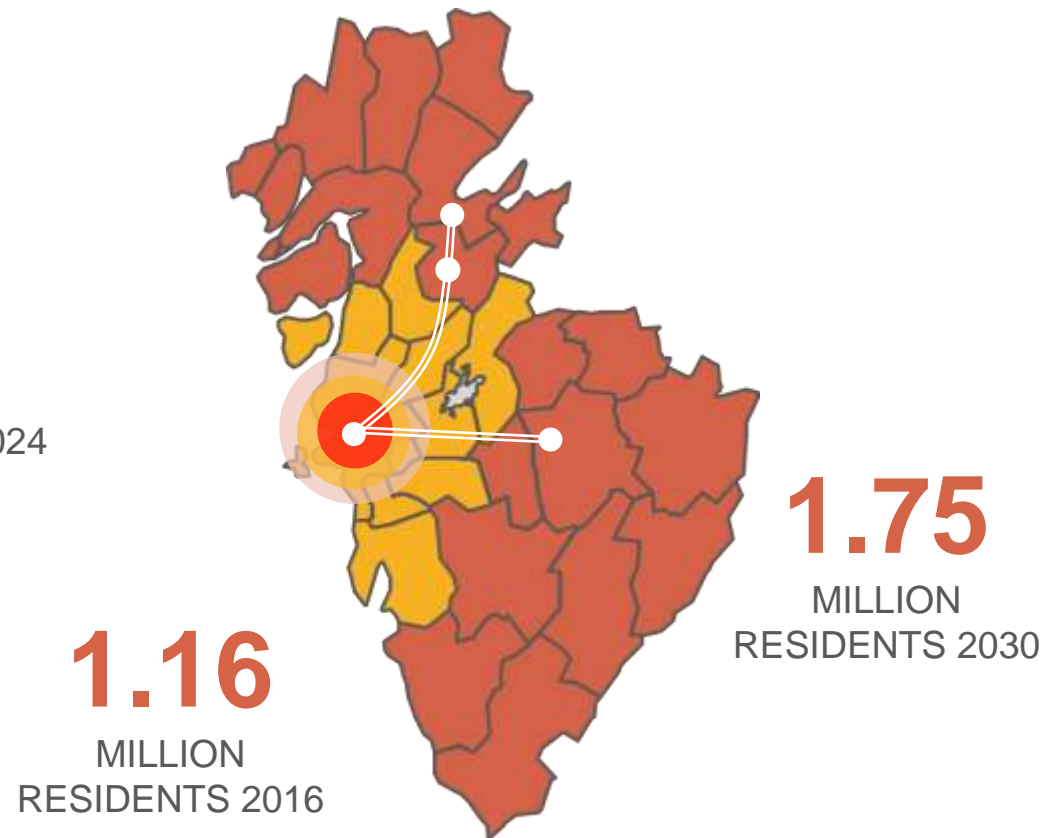
Strategy for supporting future growth



- **Enlarge the labour market region**
- **Strengthen the city area(s)**

Large investments for a continued labour market expansion and strengthening of its core

-  €1.4 billion invested in road and railway to Trollhättan in 2012
-  €3.4 billion invested in The West Swedish Agreement 2012 -2028
-  €1.5 billion invested in high-speed railway Gothenburg–Borås 2020-2024



A growing metropolitan region!



+105,000

RESIDENTIAL BY 2035



+240 000

RESIDENTS BY 2035



+110 000

JOBS BY 2035



€100 BILLION

INVESTED BY 2035

Source: Business Region Göteborg

How is the €100 billion going to be distributed?

BREAKDOWN

BILLION €

RESIDENTIAL	41
INFRASTRUCTURE	13
MANUFACTURING	13
RETAIL	2
OTHER BUSINESSES	6
HEALTH CARE / ACADEMIA	4
UNSPECIFIED PROJECTS	21

TOTAL

100



BUSINESS REGION
GÖTEBORG



BUSINESS REGION
GÖTEBORG

Some of the larger projects



West Link – rail tunnel

(2 Bil Euro)



Göta Älv Bridge



Bus lanes



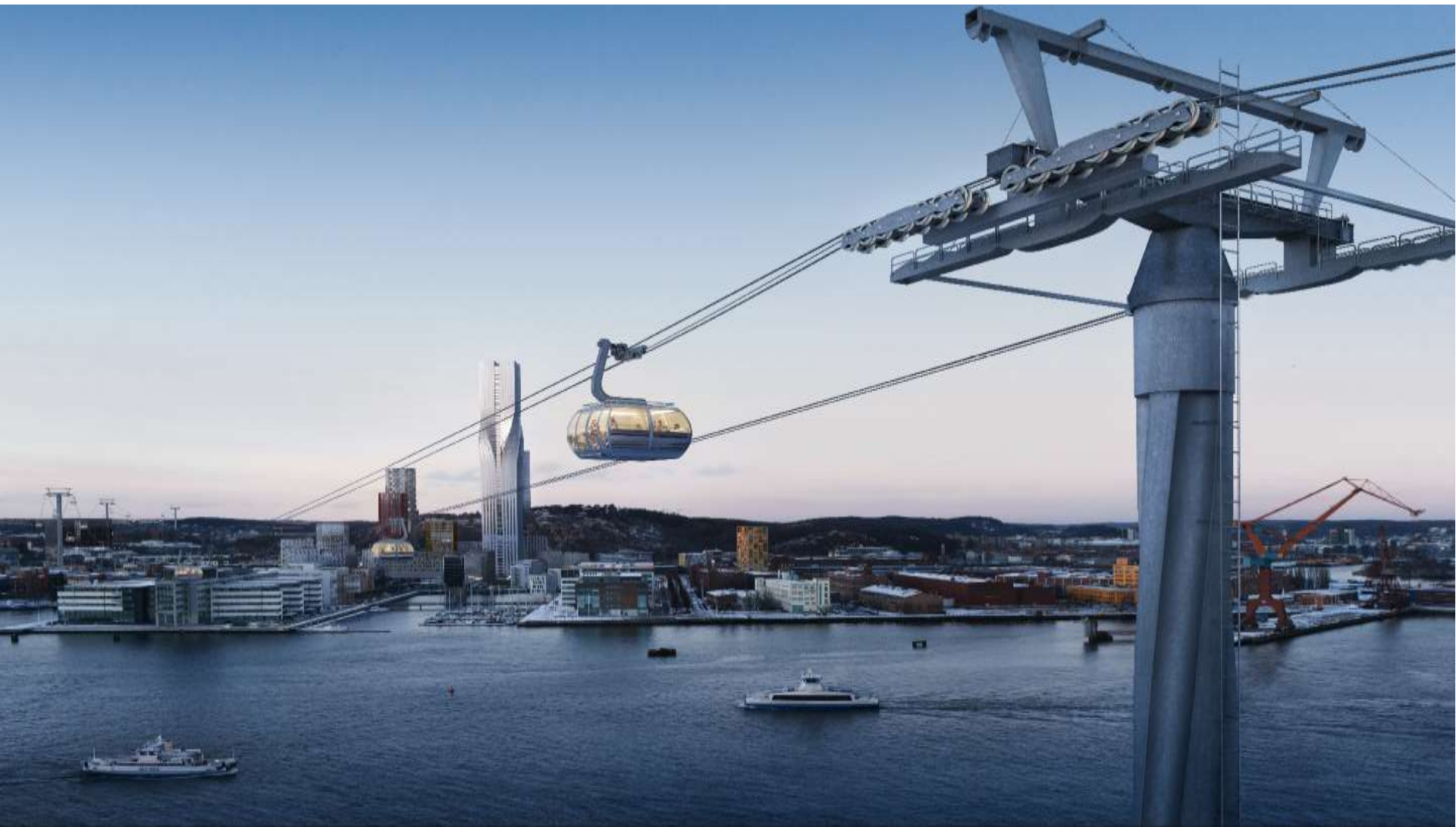
Marieholm high-way tunnel



New Vehicles

Fully implemented 2027





The West Link (Västlänken)



Varpunen





€100 billion in planned investment by 2035

Breakdown of planned investment in the Region	Billion €
Residential (new and reconstructed)	41
Infrastructure / logistics	13
Manufacturing	13
Retail	2
Businesses	6
Health care / academia	4
Others e.g. unspecified projects	21
Total	100

2021

2028

2035

NEW HQ
Volvo Group

River City

2021

2028

2035

NEW HQ
Volvo Group

+5 000,000
SQUARE METERS

+50,000
JOBS BY 2035

+25,000
RESIDENTIAL 2035

appr 30
BILLION INVESTMENT

gothenburg



1000 BILLION SEK
are estimated to be invested by 2035

At the heart of a region characterized by growth and expansion, Gothenburg is famous for its positive business climate and entrepreneurial spirit. Now the cityscape is changing and new areas ready for expansion are already appearing in city planning. A total of 1000 billion SEK are estimated to be invested already by 2035. Investing in Gothenburg means short lead times and efficient handling of your contracts. A shortcut to return on your investment.



gothenburg

For more information:
www.investinggothenburg.com

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Thank You

Andreas Göthberg,
Head of Foreign Direct Investment

Business Region Göteborg



BUSINESS REGION
GÖTEBORG

Positive Footprint Housing - Riksbyggen

- Research-, educational-, and housing project conducted simultaneously.
- Construction is ongoing of 132 new housing units at Johanneberg Science Park.
- Provides preconditions for a sustainable life, founded on collaboration as a governing idea.
- The goal is to develop a tool for every area of sustainability, as well as a new classification for sustainability; and construct the most innovative and sustainable housing building in Sweden
- Its success stems from the ambitious but humble holistic approach



Johanneberg
Science Park

Riksbyggen
Rum för hela livet

Analyzing the area's ecosystem services

– is there a positive footprint?

- Riksbyggen has developed their own tool for analyzing the ecosystem services in an area of land.
- Each planned development must score higher than the current situation to be approved.



Housing without your own car

- We have developed solutions for decreasing the usage of cars (when going to work, picking up from/leaving children at school, grocery shopping, going on vacation, etc. :)
- Walk and bike
- Use public transport
- Electrical bicycles and electrical cargo bicycles
- Innovative bicycle parking facilities
- Light electrical vehicles
- Membership in a vehicle-pool is included



Energy

- Large scale **Plus Energy building** – the buildings produce more energy than they use (total throughout a whole year)
- Cooperation agreement with GBG Energy for storing solar cell electricity produced by the RB solar cells, as well as charging electrically powered vehicles, Geothermal- and District heating
- Cooperation agreement with Cementsa – a new combination of cement and binding agents that emits about 30% less carbon is being developed
- The housing cooperative produces electricity for the members via the solar panels
- Second life bus batteries – power compensations and increased usage of solar power



Homes for young adults Bostäder för unga vuxna

- 6 apartments of 30 sq.m.
- Full members of the cooperative
- Voting
- Electable
- Low initial down payment of 95 000 SEK
- Monthly fee of 5400 SEK
- Cannot be resold with profit



Smart Sustainable Districts

With SSD we plan to create a Living Lab district, for living and working towards Factor 10, and as an inspiration for European districts

UTRECHT

The Municipality of Utrecht aims to embed sustainability in the redevelopment of Utrecht The New Centre. The main objectives of this ambition are an energy neutral area, a climate-proof area, an attractive area, through sustainable energy, optimum greening, water retention and clean personal mobility.

HELSINKI +

+ GOTHENBURG

+ MALMÖ
+ COPENHAGEN

QEOP, LONDON +

A new heart for east London, Queen Elizabeth Olympic Park is the city's newest, smartest and most sustainable park. The key themes are resource efficient buildings, energy systems, smart park / future living, and data architecture and management.

+
+
ROTTERDAM

+
ST. OUEN, PARIS

Les Docks de Saint-Ouen focused innovative solutions to mitigate environmental impacts of the neighborhood, such as

+ MOABIT WEST, BERLIN
Since mid-2014 the project team has explored options for implementing integrated district solutions in Moabit West with the



Climate-KIC is supported by the EIT, a body of the European Union





Riksbyggen
PFH

Power station

HSB
Living Lab

Smart
Sustainable
Office

Solar initiative

Visualisation
District

AllAgehub

Microgrid

Smart Building
Complex

Controllable
Urban
Soundscape

ElectriCity

Projects in progress



Collaboration office



Opportunities for improved well-being

- Support people's creative practices through making environments that allow for expression of self, seclusion, privacy, comfort, deep concentration and reflection

Collaboration office



- Encourage and enable new practices and work patterns by making environments that allow for collaboration, play and inspiration
- Enable having access to a variety of environments and possibilities

Phase II

Next phase of Johanneberg Scienc Park and an innovationarena/project ex shared space, indoor bus stop, virtual learning class room



ElectriCity – cooperation on tomorrow's public transport

Next generation workshop solutions



Innovative bus stops
5 new whereof one indoors



2 new bus types:
Electric Hybrid
Fully Electric



Test and development of new
IT solutions



ElectriCity Partners – Triple Helix model



Controllable Urban Soundscape

Sound & lightning solution
providing quiet, relaxed
recreational places in busy city
centers

The solution is build on 3
acoustics principles; **isolation,**
diffusion, absorption

3 demos in the city of
Gothenburg – one of them a
“quiet” bus stop



“Quiet” Pocket park in shopping center, Gothenburg



Controllable Urban Soundscape Partners – Triple Helix model



Watteriet



MAYOR OF LONDON

*Public funding by the Swedish Innovation Agency:



Swapping Bookshelf

- **Public outdoor bookshelf** with **free access** to the public **24/7**
- Makes **waiting at the bus stop** more **attractive & motivates** citizens to use the electric bus
- **Promotes the idea of sharing economy & reading**



Inauguration at Johanneberg campus area, Gothenburg, October 2016



Land Transport Authority from Singapore visiting the Swapping Bookshelf

- A **solar panel provides autonomous electricity & lighting** during the night
- **Made out of 100% recyclable materials (wood, metal, etalbond)**
- **Includes a touch screen & video with use instructions**



Thank you for your attention

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