# Region Östergötland

## From innovation policy to implementation of smart specialisation

4th meeting Östergötland, 14th February 2017

# Contents

- **Region Östergötland**
- Regional innovation system and Smart Specialisation
- Regional innovation policy measures

# Region Östergötland

Overview of responsibilities and services

# Basic facts

- 440 000 inhabitants
- 2 h travel from Stockholm
- 13 municipalities
- Half of Sweden's population and 30% of its industrial production within a radius of 200 km
- About 40 000 companies
  SAAB, Ericsson, Siemens, Toyota App 3600 farming businesses, 3400 forestry companies, 160 food industry

[redacted]

# Swedish tax system

- Municipal tax (average 31%)
- Additional state income tax (20-25%)
- VAT on goods and services (25%)
- Local authorities are free to set income tax rates in their respective municipalities and county council districts
- Social security contributions are included in the tax (social insurance, pension fees) and are regulated by law

# How Sweden is governed

**Riksdag (Parliament)**

**Government**

**Ministries**

| | *Government agencies* | *Regional/municipal authorities* |
|---|---|---|
| *Central level* | State-owned companies<br>regulatory authoroties, e.g.<br>Swedish Road administrations | |
| *Regional level* | County Administrative Boards | County Councils<br>Regions<br>Regional Councils |
| *Local level* | Employment offices etc. | Municipalities |

[redacted]

# Who does what?

**Regional Level**

County Administrative Board – supervisory authority

Region – healthcare & regional development

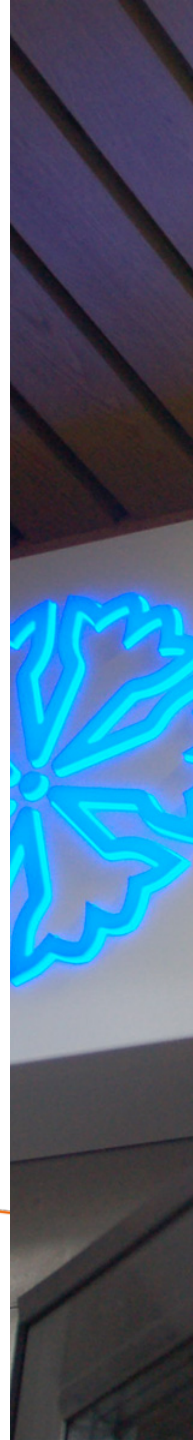
**Municipalities**

*Schools, childcare, eldery etc.*

[redacted]

# Responsibilities of Region Östergötland

- Healthcare
- Dental Care
- Public Transport
- Regional Development



# How Region Östergötland is governed

- Region Östergötland is a democratically governed organisation
- The highest decision making body is the Regional Assembly consisting of 101 politicians elected on a four-year term
- Regional Executive Committee

  Three committees

  - Healthcare Committee
  - Transport and Regional Planning Committee
  - Regional Development Committe

# Regional Executive Committee

- Manages and coordinates the activities of Region Östergötland
- Ensures that decisions by the Regional Assembly are enforced and monitored
- Coordinates the work in the committees
- Compiles data and documentation for the Regional Assembly
- In charge of collaboration with regions, universities and authorities
- 10 meetings/year
- 17 ordinary members, 11 substitute members, (majority and opposition)

# Healthcare Committee

- Responsible for;
  - consider the inhabitants need for healthcare
  - allocate resources for regional healthcare
  - purchase healthcare services from public and private providers
  - International Relations linked to the tasks of the committee

- 17 ordinary members, 11 substitute members

[redacted]

# Transport and Regional Planning Committee

- Responsible for;
  - Spatial planning
  - Public transport
  - Infrastructure
  - Rural development
  - Energy and climate
  - International Relations linked to the tasks of the committee
- 15 ordinary members, 9 substitute members

# Regional Development Committee

- Responsible for;
  - Sustainable economic growth
  - Business development and innovation
  - Skills provision and employment
  - Culture & Creativity
  - Nature and outdoor activities
  - Regional public health
  - Attractiveness of the region
  - International relations linked to the tasks of the committee

- 15 ordinary members, 9 substitute members

# Region Östergötland

## From innovation policy to implementation of smart specialisation

4th meeting Östergötland, 14 February 2017

# Contents

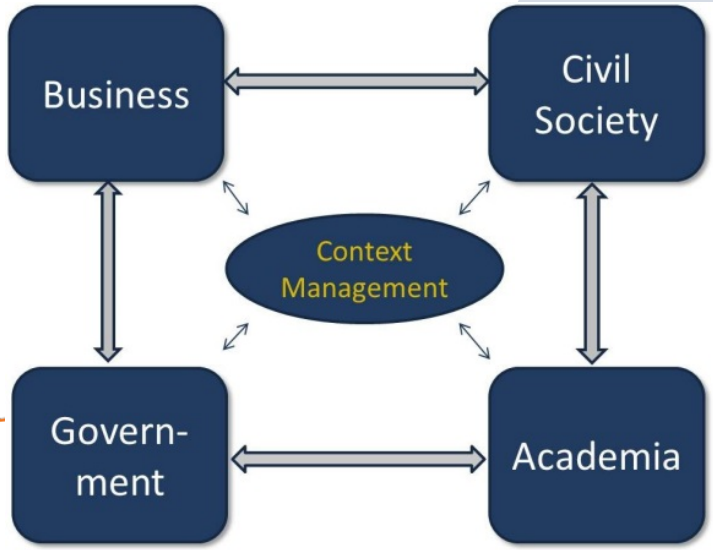
- Region Östergötland
- **Regional innovation system and Smart Specialisation**
- Regional innovation policy measures

# Overall goal hierarchy

Region Östergötland

EAST SWEDEN BUSINESS REGION


Everyone to join the vision




| | |
|---|---|
| Attractive, internationally competitive, high growth industry | Vision |
| Increasing no of enterprises<br>Increasing no of new enterprises<br>Increasing employment<br>Increasing valued added<br>Increasing no of investments | Mission |
| Regionally and locally-based development efforts with strong regional leadership | Strategy |

EmpInno

S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Business Region - Platform structure


Region Östergötland

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Main ingredients of the regional innovation system

## A coordinated innovation system

- East Sweden Business Region
- Smart specialisation strategy
- Private public partnerships
- Local Authorities

## Interdisciplinary research

- Linköping University
- Specialised research institutes

## Living labs and demo environments

- Clusters, Science centres
- Open Innovation Arenas

Region Östergötland

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

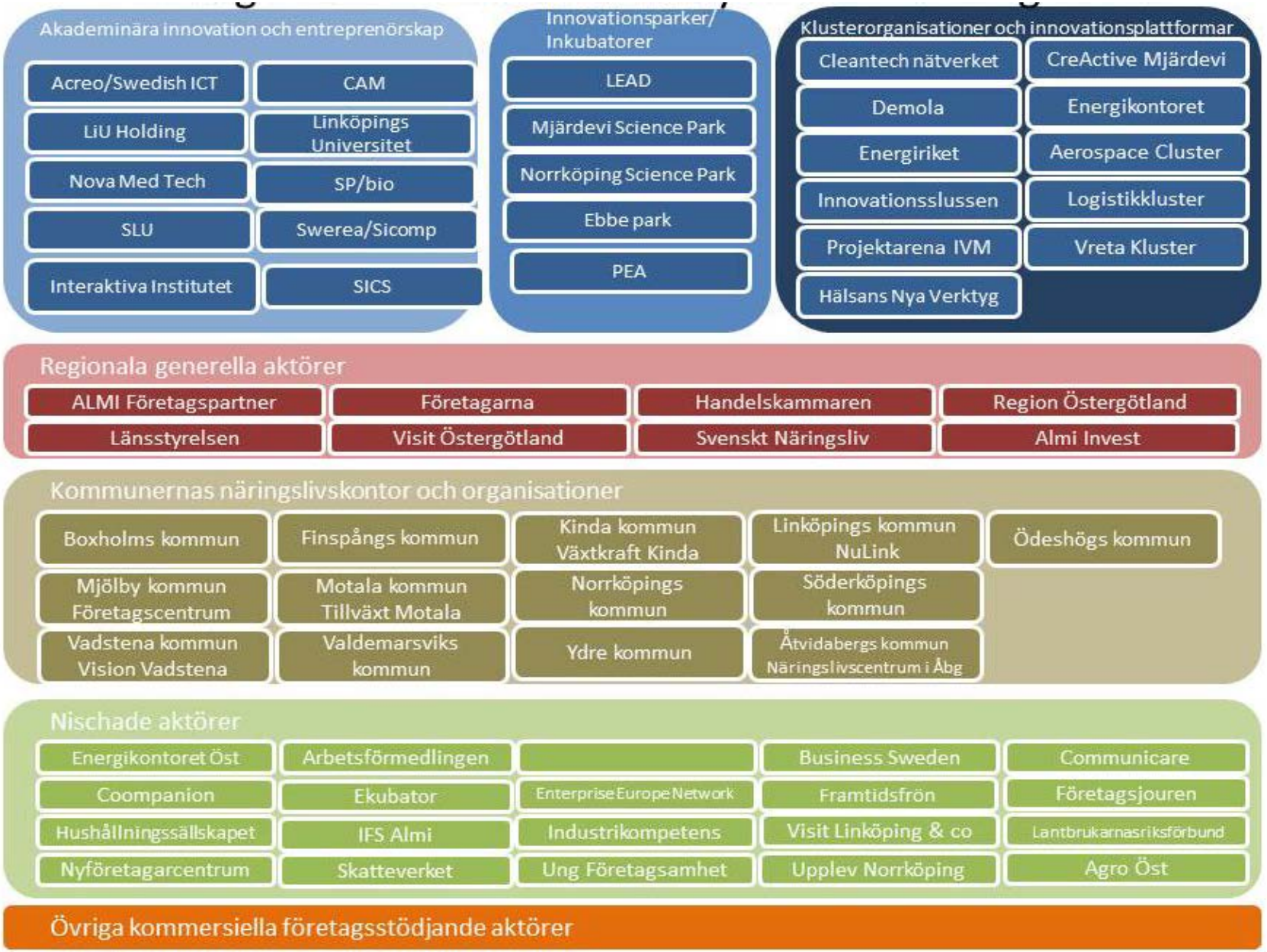
# Collaborative actors of ESBR

- East Sweden Regional Council **(coordinator)**
- Linköping University
- The County Administrative Board
- The Chamber of Commerce
- East Sweden Seed Capital
- Business Organisations
- 13 Municipalities
- ALMI/INVEST
- Science Parks
- Incubators
- Clusters

Region Östergötland

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Actors in the regional framework for growth



# Regional innovation policy mix

- Physical environments:
  - Science Parks and Visualisation centre
  - Cluster initiatives
  - Research centers
  - Linköping University and applied research institutes and Tech Transfer Office
- Venture capital provision
- Support to large scale thematic innovation initiatives
- Open innovation platforms (Demola, Projektarena IVM)
- Incubator facilities
- Entrepreneurship promotion programmes
- Business development schemes (HELIX, Framtidsföretag)

# RIS3 analysis framework

| Industrial back bone of the specialisation area | Research and Development in the specialisation area | Regional framework conditions |
|---|---|---|
| **Competitive companies/products/service** | Resources (human and infrastructure) | National and international position/image |
| **Regional value chains** | Relevance for regional industry and transfer models/structures | Regional support initiatives |
| **Industrial renewal (investments, entrepreneurial activities, patents, etc)** | National and international position/strength | Ability to shared vision and objectives |
| **Horisontal benefits (for a wide range of sectors)**<br>**International growth potential**<br>**Unique regional profile** | | |



| | | |
|---|---|---|
| Industrial sectors | Research at University, research institutes and companies | Cluster and other initiatives |

S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Structured workshops

## Defining, evaluating S3-areas

Industry

Academy

Region

Innovation system

Institutes

I.E. Visualisation & Simulation

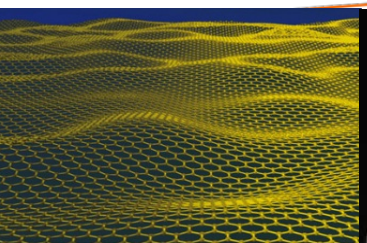
Moderator

Region Östergötland

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Smart specialisation areas

- **Efficient Logistics;**
  logistical processes including goods, people and material as well as service delivery.
- **Smart ,secure and stabile connected products and systems;**
  systems of secure, Internet-integrated, communicating electronics and sensors as well as innovative methods for manufacturing and distribution, e.g. printed electronics.
- **Simulation and visualization;**
  visualization of complex data, processes and interactions through virtual models, simulation as well as visual, interactive media and games.
- **Advanced materials;**
  novel materials: Graphene, nano-engineered surface coatings for metals and plastics.
- **Business models and arenas for sustainable systemsolutions**
  Green product development and business models, circular systems (e.g. waste, energy)

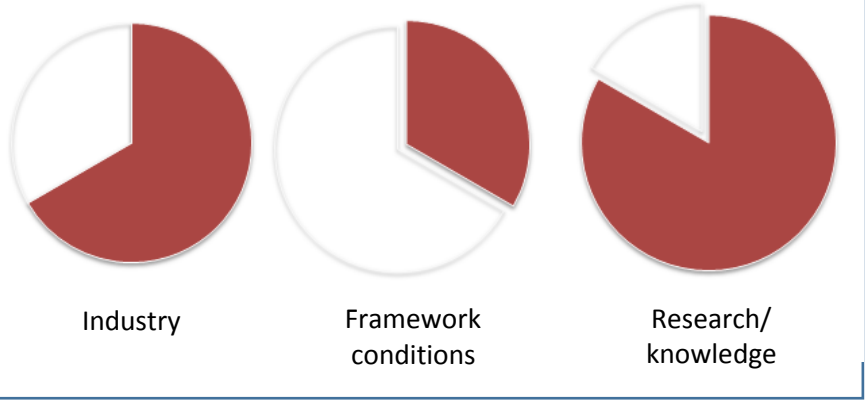




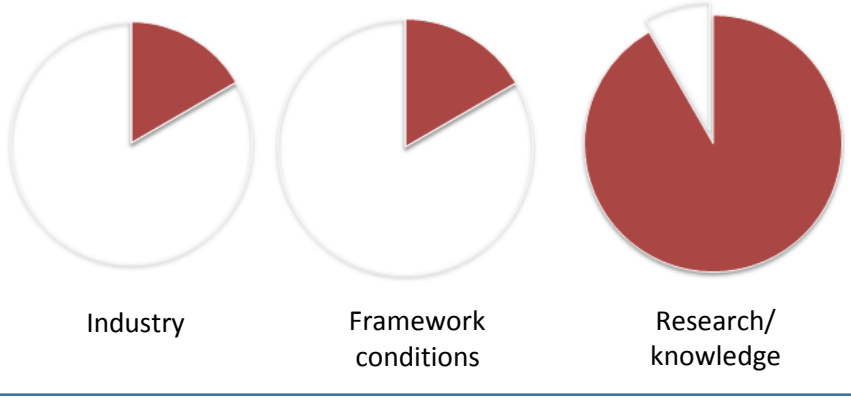
# Overview of specialisation areas

Region Östergötland

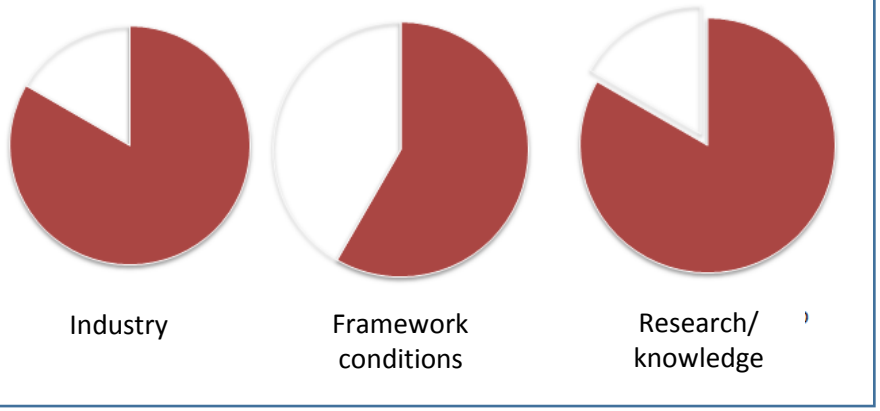
## Efficient Logistics



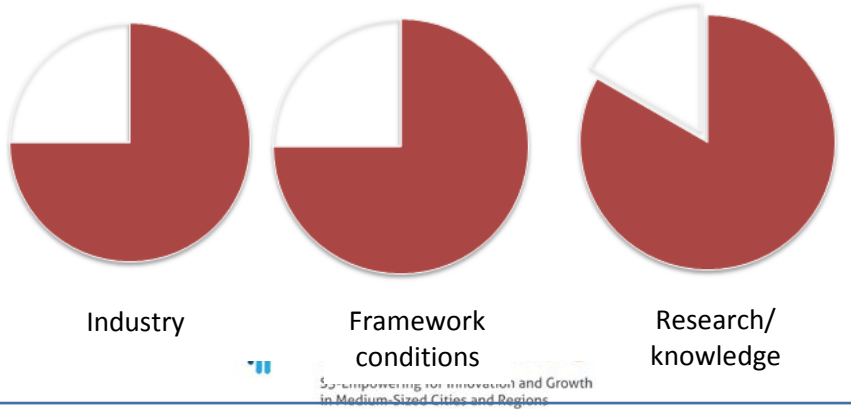

## Advanced Materials



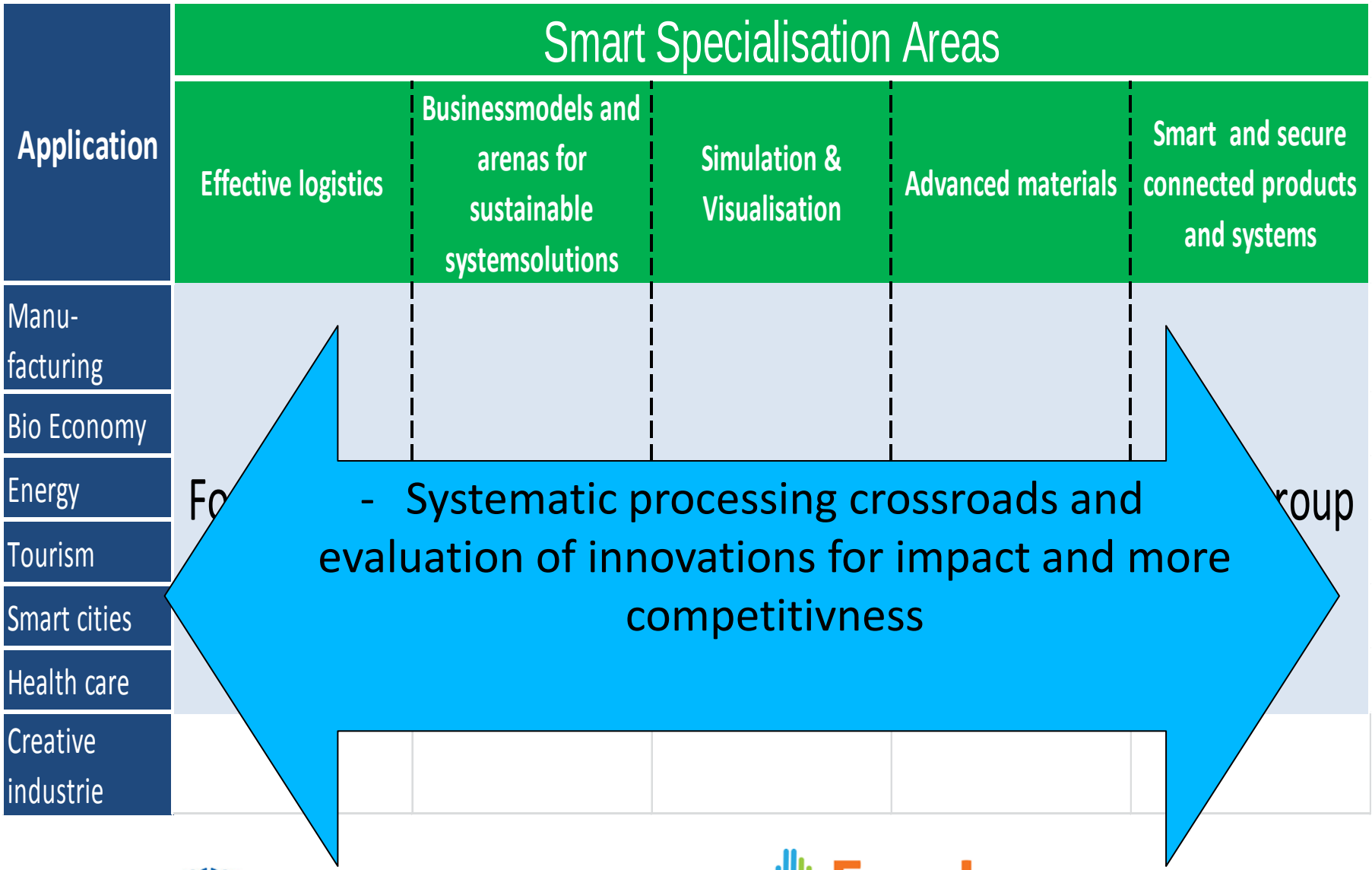

## Smart and secure connceted products and systems




## Simulation & Visualisation



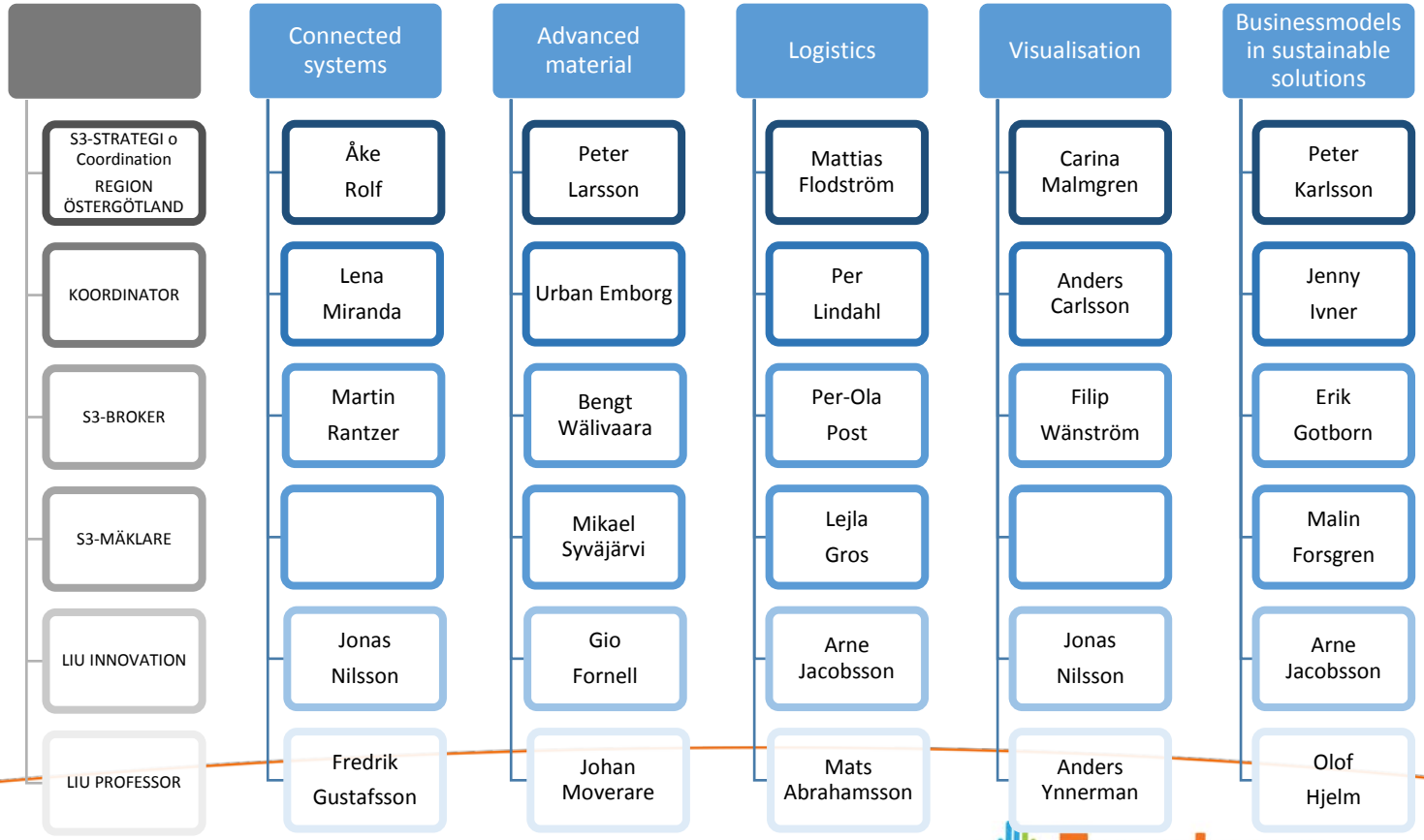
# Process for developing policy mix




Region Östergötland

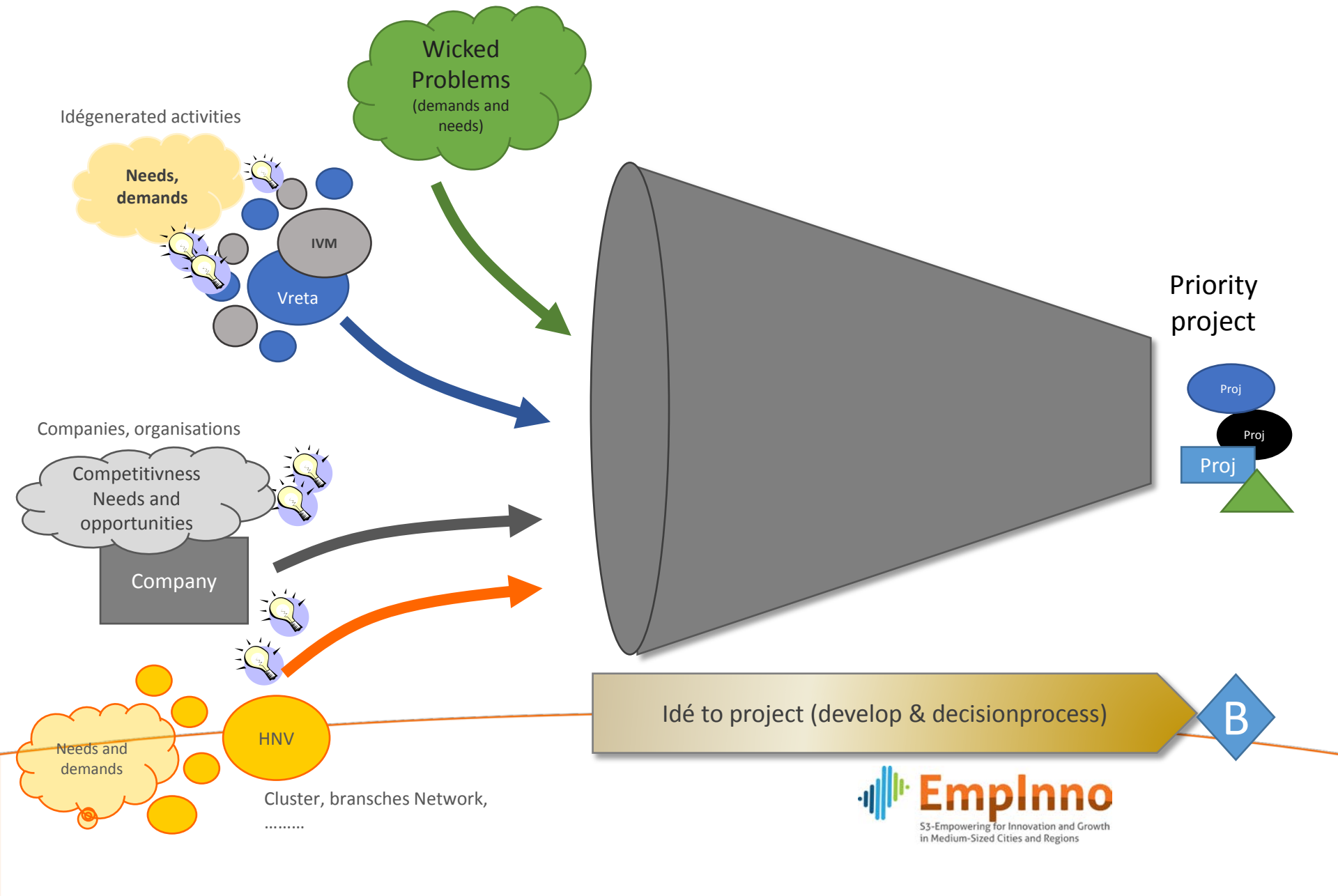
EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Smart Specialisation in Östergötland key persons



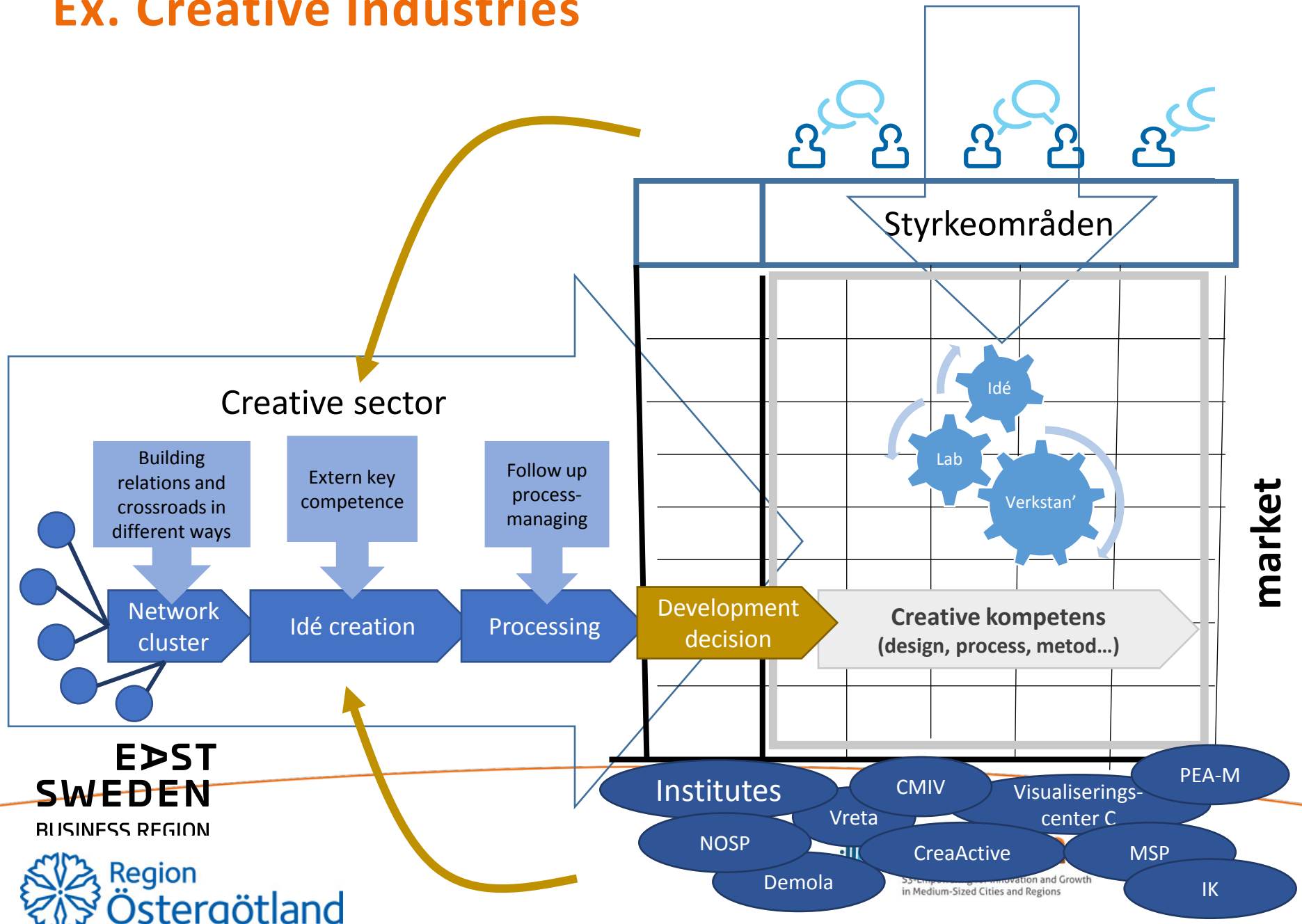

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Idea-generation and decision-making process

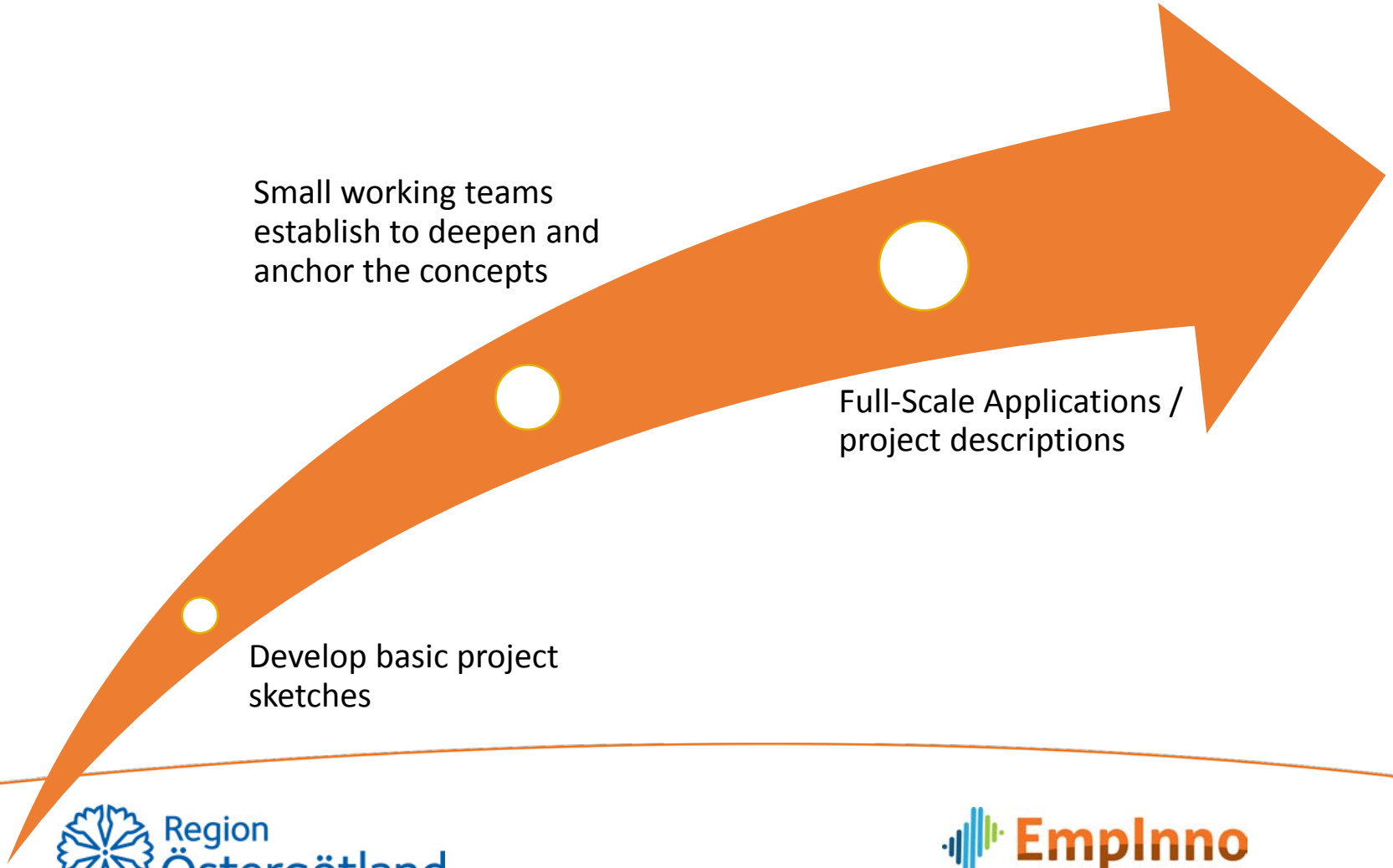



EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Ex. Creative Industries



# Concretization process for project development




Region Östergötland

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Region Östergötland

## From innovation policy to implementation of smart specialisation

4th meeting Östergötland, 14 February 2017

# Contents

- Region Östergötland
- Regional innovation system and Smart Specialisation
- **Regional innovation policy measures**

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Regional flagship initiatives

- Vreta cluster
- Future company scheme
- Printed Electronics Arena
- Visual Sweden

# Agro Food Innovation Centre Vreta Kluster

# From idea too dynamic innovation arena




EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Founding stakeholders of Vreta Kluster

- Property owner and base for the cluster
  - Sankt Kors Fastighets AB
- Financing
  - Region Östergötland
  - Linköpings kommun / city
- Former project owner
  - AgroÖst

SANKTKORS

Region Östergötland

Linköping
Där idéer blir verklighet

AgroÖst

# Competens- och development centre for bioeconomy

“The goal is to create jobs, growth and development by connecting companies with R&D and different industries with each other”

“The goal is also a green world-class cluster”


EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# The Vision

Vreta Cluster is the best meeting place and interdisciplinary development arena for technology and business development within the green industry, and a major contributor to the industry's development and growth.


EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

## Innovation & development

- Business networks, seminars, workshops
- Developement projects

## Meetings & Conferences

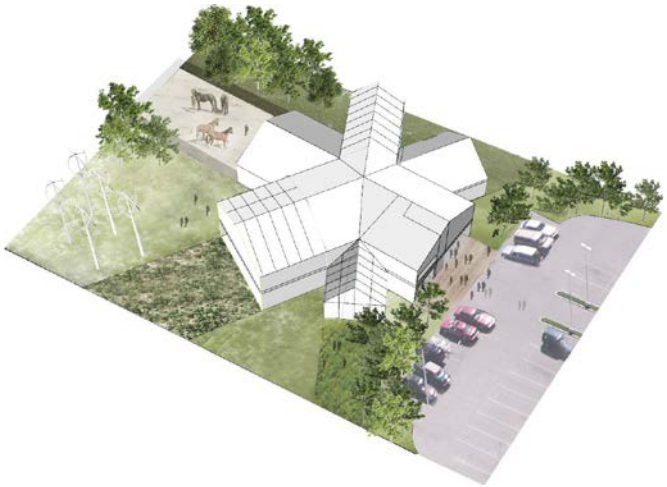
- Meeting facilities and service
- Catering with Swedish and local produce

## Business park

- Office premises, parking, pet day-care
- Cluster coffee, off-work activities

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Vreta Kluster ”Future State”



EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Phase 3 – thematic focus

Water management

Smart Farming

Food

Poultry

Animal welfare

Sustainbility/
Environment

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions


ARION
CLAAS
430
ARION


System
Cameleon
LIQUID Edition
3m³

# The future Company Scheme

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# The future Company Programme in a nutshell

- Targets regionally-based companies with 20-100 employees that are willing and capable of growing their business.
- Funding through ERDF and Region Östergötland
  - Total budget approx. 1,5 mio EUR
- Involved 100 companies in total and 50 companies in a dedicated growth programme

# Programme objectives

- Reach/involve 100 regional companies
- Contribute to doubling turnover in the period 2009-2013
- Contribute to creating 1000 new jobs 2009-2013

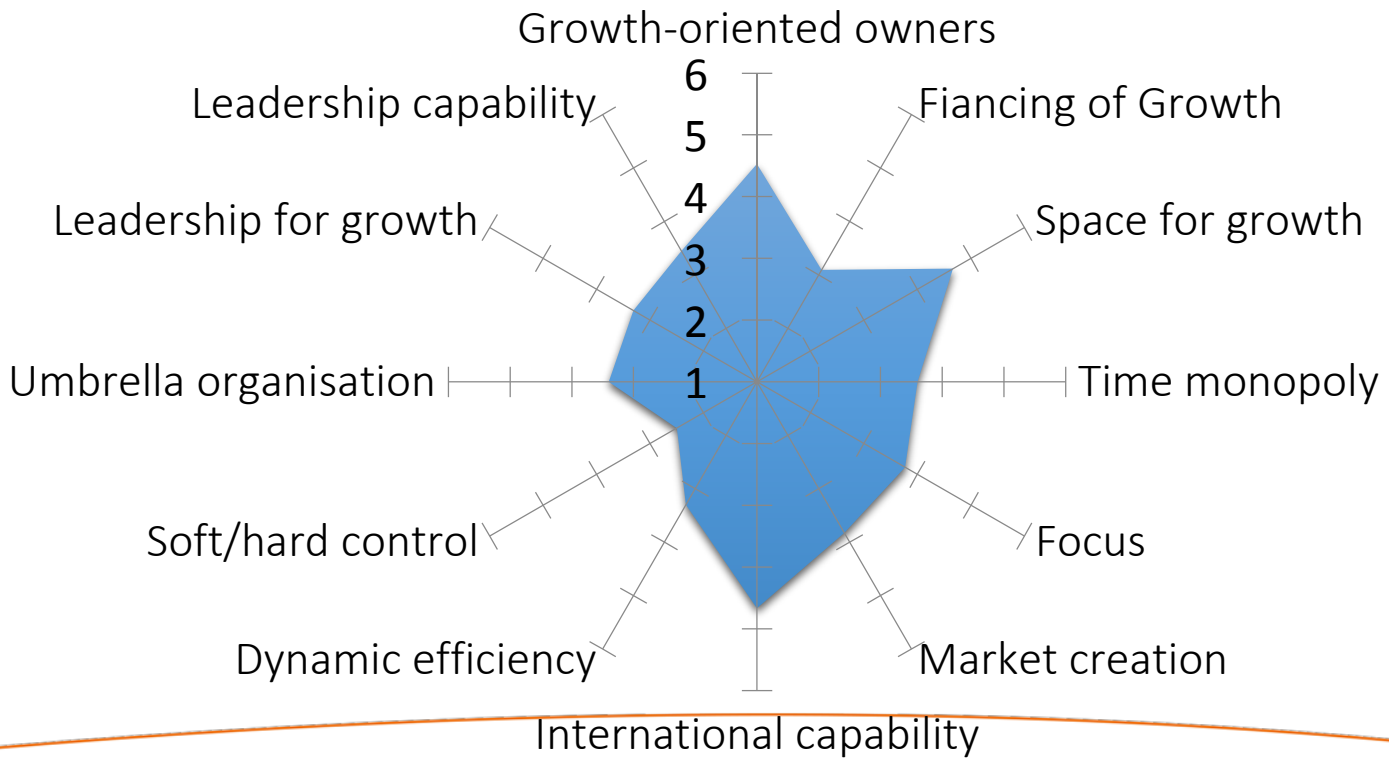
# Programme offer

1. The growth barometer: analysis of strengths and weaknesses relevant for future growth

2. The growth programme (12 month process):

   - smaller groups of CEOs meet and discuss barriers to growth
   - External experts a contracted to provide continuous advice and coaching of change processes
   - Knowledge exchange seminars

# Step 1: The Growth Barometer




EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Step 2: Participation in ”Growth Programme”

Knowledge-exchange seminars

Expert participates at each meeting


12 month programme

Coaching, 40 hours and topical expert 40 hours

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Significant company commitme

- 60 group meetings within programme
- 250 coaching meetings
- 2000 hours of consultancy support
- 12 seminars, 350 participants
- 24 participants in sales network

# Company benefits

2009-2014

- Turnover increase from 2,5 bn SEK to 4,6 bn SEK
- Median business +93%

- Employment increase from 1450 to 2570
- Median business +45 %

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Success factors

- High potential target group
- Initial analysis of strengths and weaknesses provides clear path for action
- Inter-sectorial groups secures new perspectives for participants
- Coaching in-between group meetings accelerates and supports change process implementation
- Highly qualified and experienced consultants/experts

# Printed Electronics Arena
# /
# PEA Manufacturing

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# Printed Electronics Arena

The vision

- Create lasting, sustainable growth in the region surrounding Norrköping by commercialising and utilising the solid research and development that has been carried out at Linköping University and the research institute Acreo Swedish ICT within the field of printed electronics

The objective

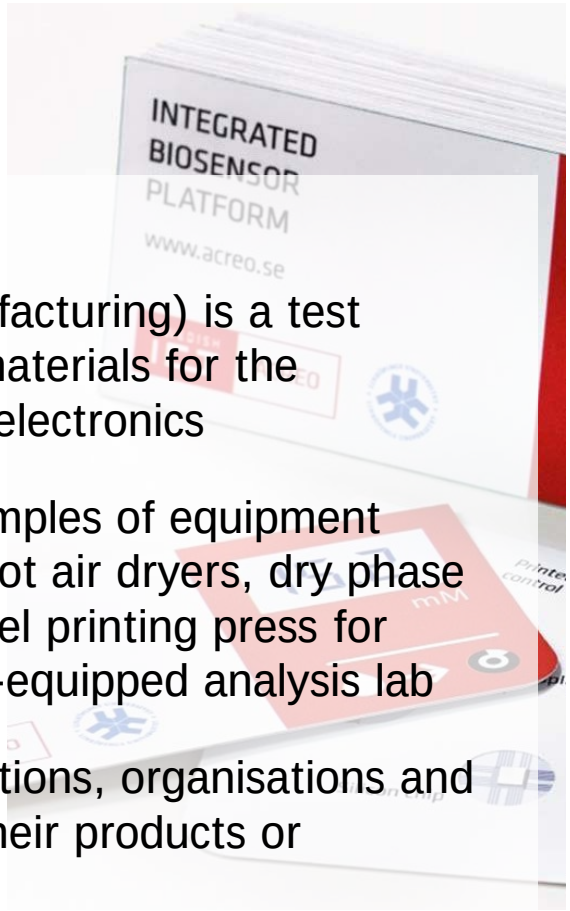
- to establish cluster networks with respect to printed electronics, where participating companies are able to exchange experiences and make use of the research and development results that have already been produced. For instance, this may involve cooperation in marketing activities, workshops, production and product development.

Financed by

- VINNOVA
- the European Regional Development Fund
- Regional co-financiers are Norrköping Municipality and the Region

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

# PEA Manufacturing




A Test Environment for Printed Electronics

- Printed Electronics Arena Manufacturing (PEA Manufacturing) is a test environment with a wide range of equipment and materials for the development and small-scale production of printed electronics
- PEA-M has complete manufacturing processes. Examples of equipment available include flat screen printers, UV-, IR- and hot air dryers, dry phase patterning equipment, inkjet printers, roll-to-roll label printing press for screen and flexo, lamination equipment, and a fully-equipped analysis lab
- The test environment is open to all types of associations, organisations and companies who wish to test Printed Electronics in their products or processes.
- The results of research from Linköping University and the research institute Acreo drives forward development in the test environment.

EmpInno
S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

PEA
Printed Electronics Arena

# Manufacturing

500 m$^2$ greenhouse for production
- Printing machines
- Test and inspection
- Ink manufacturing

Activities
- Prototype design
- Product development
- Pilot Production
- Technology transfer
- Workshops

Targeting
- Start-up companies
- Established industry

*Laser ablation*

*R2R label printer for display and circuitry manufacturing*

*Sheet printer for display and circuitry manufacturing*

*Coater for solar cell manufacturing*

*Dry Phase patterning machine for manufacturing of antennas, flex circuits etc*

Knut och Alice Wallenbergs Stiftelse

Linköpings universitet

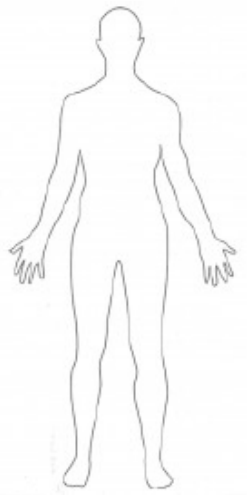
SWEDISH ICT ACREO

www.acreo.se

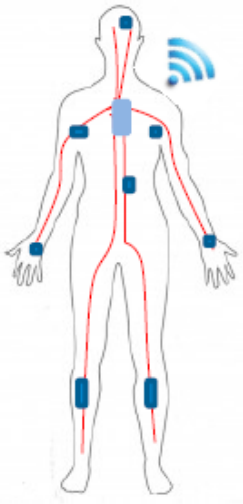
# BIOCOM LAB

1970

2014



2014



2030

Functions:
- Adaption
- Safety systems
- Emergency call
- Remote Diagnostics
- Remote service
- Connectivity

Conditions:
- Regulatory
- Reliability
- Harsh environment

Functions:
- Adaption
- Safety systems
- Emergency call
- Remote Diagnostics
- Remote service
- Connectivity

Conditions:
- Regulatory
- Reliability
- Harsh environment