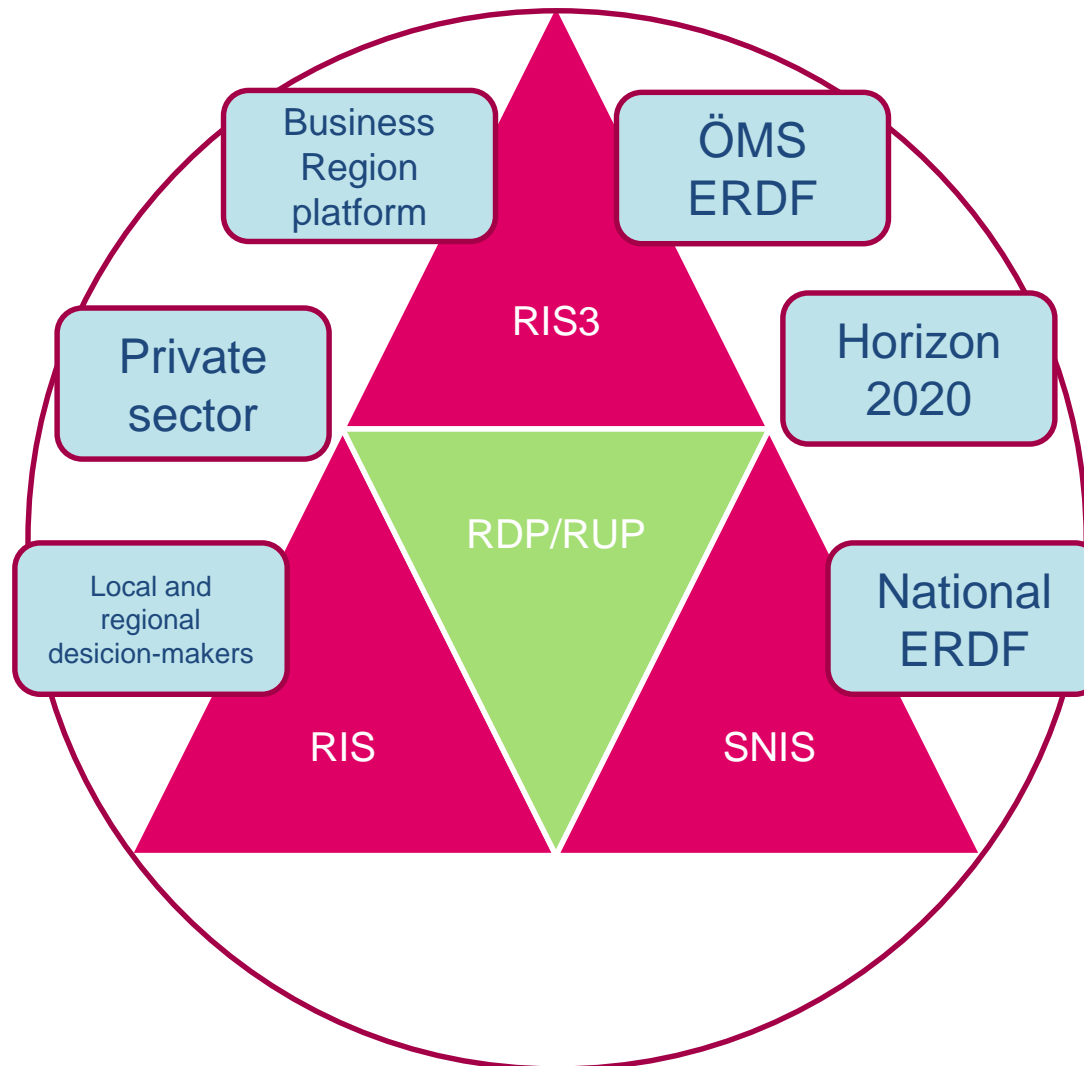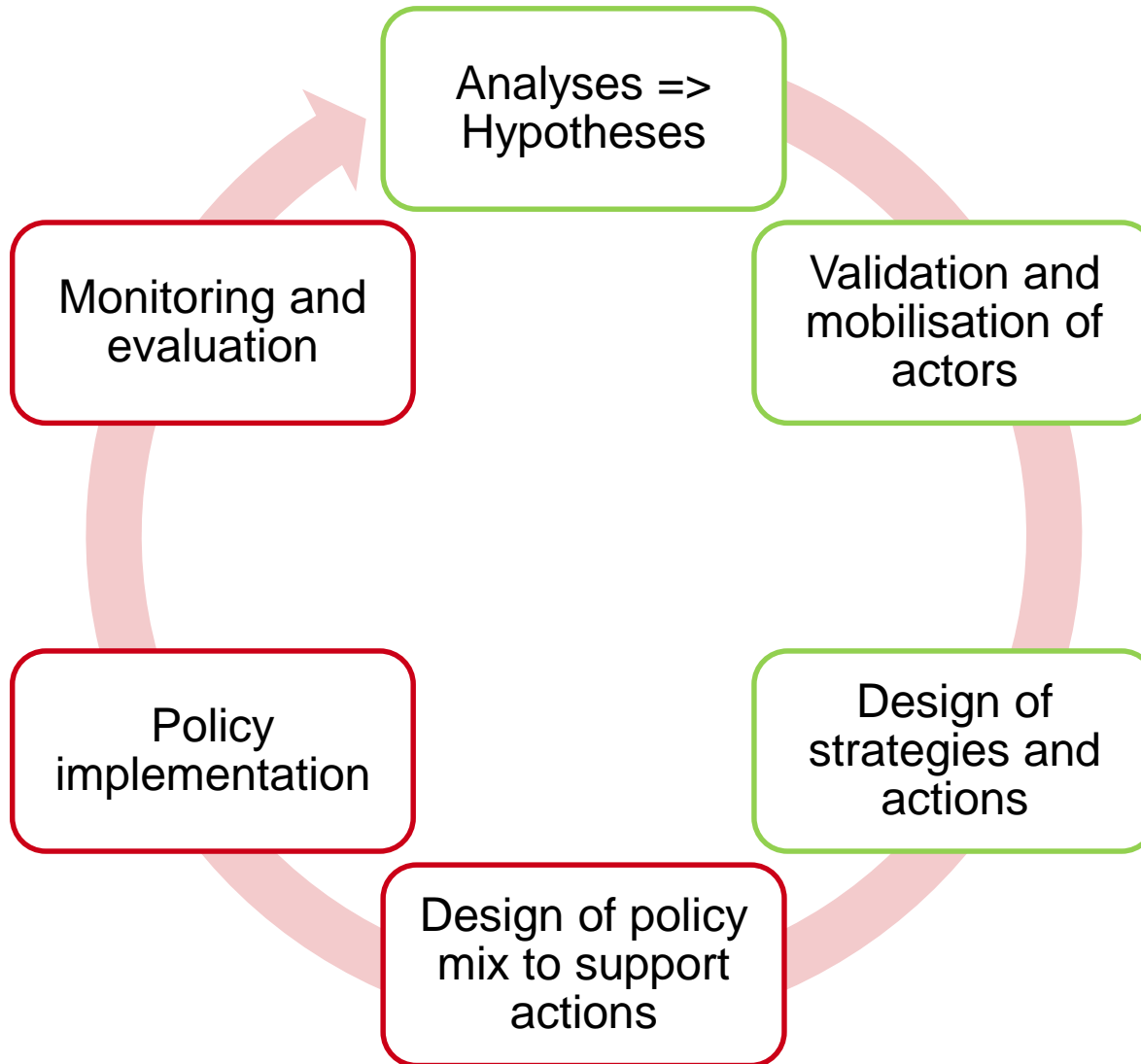# Content of the presentation

1. East Sweden Region

2. Regional innovation policy and RIS3
   – the journey from Regional Development Plan to Smart
     Specialisation strategy

3. Simulation and Visualisation - the augmented region

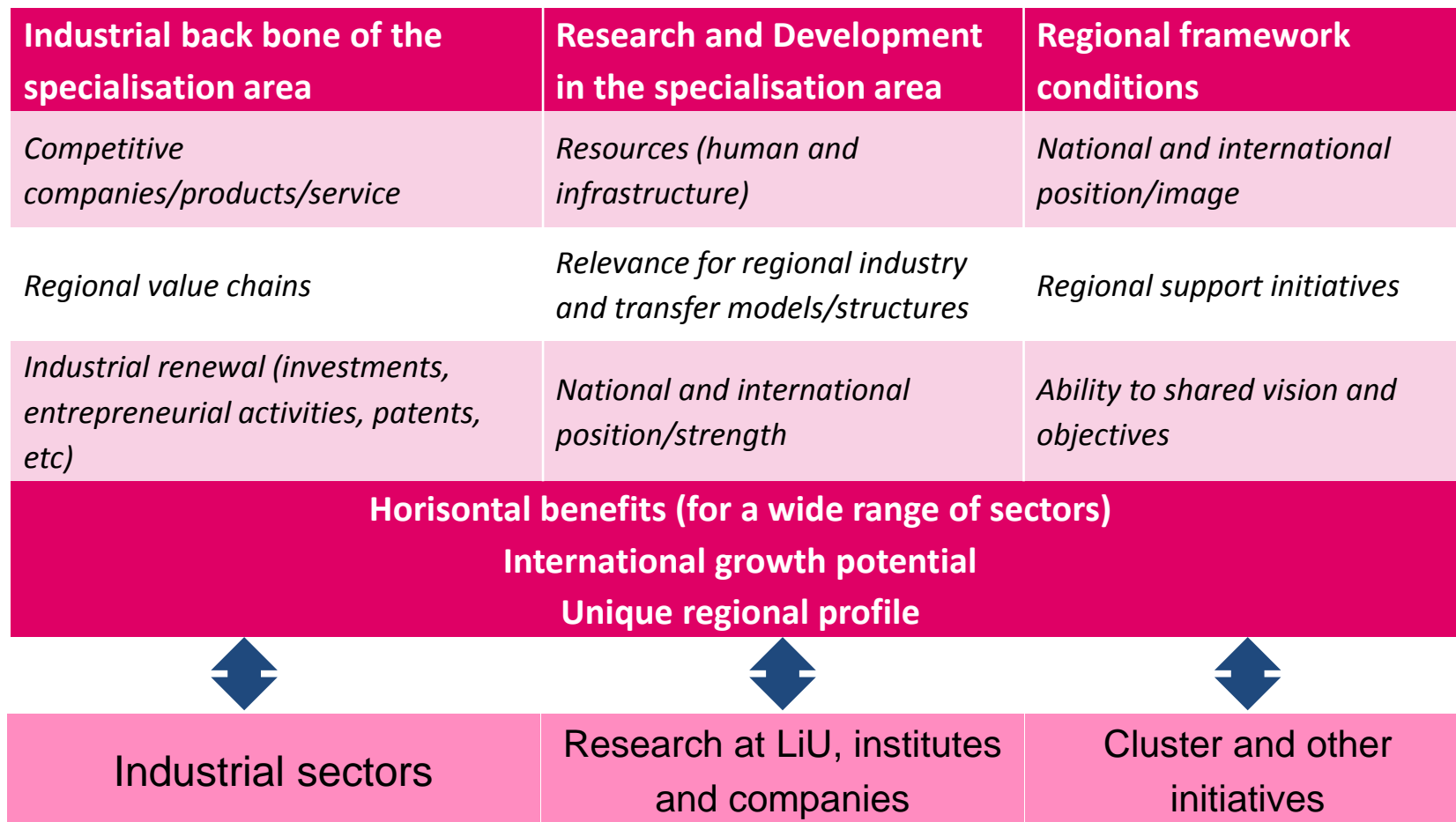4. Logistics of goods, services and humans – lean region

5. Challenges

East Sweden Region

- Accessibility – a key issue

- Proximity to the Stockholm region

- Strategic location

- 430 000 inhabitants

- Area:10 562 km^2

- 40 inhabitants per km^2

- 2 h travel from Stockholm

- 13 municipalities

- Linköping & Norrköping

- Sweden's fourth largest region

RIS3 status

Analyses => Hypotheses

Validation and mobilisation of actors

Monitoring and evaluation

Design of strategies and actions

Policy implementation

Design of policy mix to support actions

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)
International growth potential
Unique regional profile

Industrial sectors	Research at LiU, institutes and companies	Cluster and other initiatives

Thematic specialisation areas

❖ **Logistics of goods and services;**

- logistical processes including goods, people and material as well as service delivery.

❖ **Smart and secure 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.

❖ **New industrial materials;**

- novel materials: Graphene, nano-engineered surface coatings for metals and plastics.
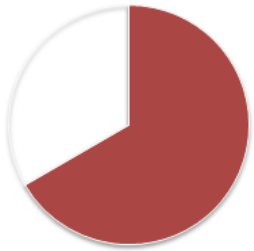
Cross-cutting specialization area:

❖ **Sustainable and resource efficient business development**
- Green product development and business models, circular systems (e.g. waste, energy)

Overview of specialisation areas

Logistics

Industry	Framework conditions	Research/ knowledge

New Materials

Industry	Framework conditions	Research/ knowledge

Smart and secure connceted products and systems
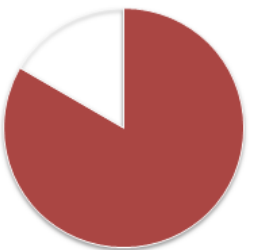
Industry	Framework conditions	Research/ knowledge

Simulation & Visualisation

Industry	Framework conditions	Research/ knowledge

Regional innovation policy mix
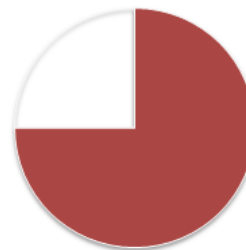
- Physical environments:
  - Science Parks and Visualisation centre
  - Cluster initiatives
  - Printed Electronics Arena
- Venture capital provision
- Open innovation platforms (Demola, Projektarena IVM)
- Support to large scale thematic innovation initiatives (HNV, Nova Medtech,)
- Tech Transfer Office at Linköping University and applied research institutes
- Incubator facilities
- Entrepreneurship promotion programmes
- Business development schemes (HELIX, Framtidsföretag)
- Ad hoc small project funding

Process for developing policy mix

Application	Smart Specialisation Areas				
	Logistics of goods and services	Sustainable and resource efficient business development	Simulation & Visualisation	New industrial materials	Smart and secure connected products and systems
Manu-facturing					
Bio Economy					
Energy	Focus group	Focus group	Focus group	Focus group	Focus group
Tourism					
Smart cities					
Health care					

Format: Thematic focus groups of 5-10 members

Composition: Emphasis on industry, complemented by academia and intermediaries

Duration: Q4 2013 to Q2 2014

Intensity: 3-4 workshops per group

Result: Strategy and action plan as well as proposals for policy instruments

Sustainable regional growth

Regional development co-ordination and support

Growth- and innovation strategies (RIS3)

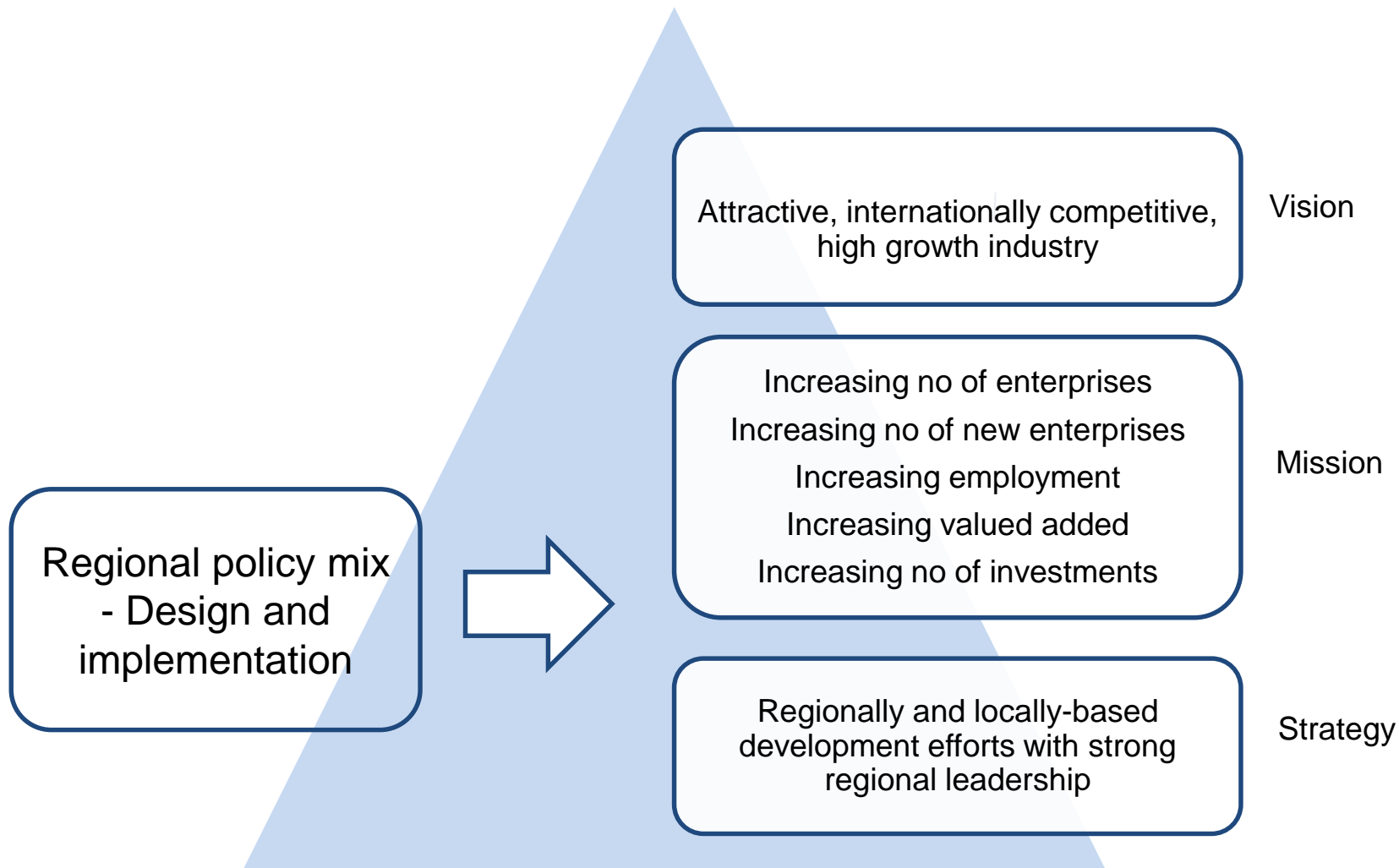| **Business development** | **Innovation** | **Investment promotion** | **Talent attraction management** |

Place management and marketing

Strategic project management
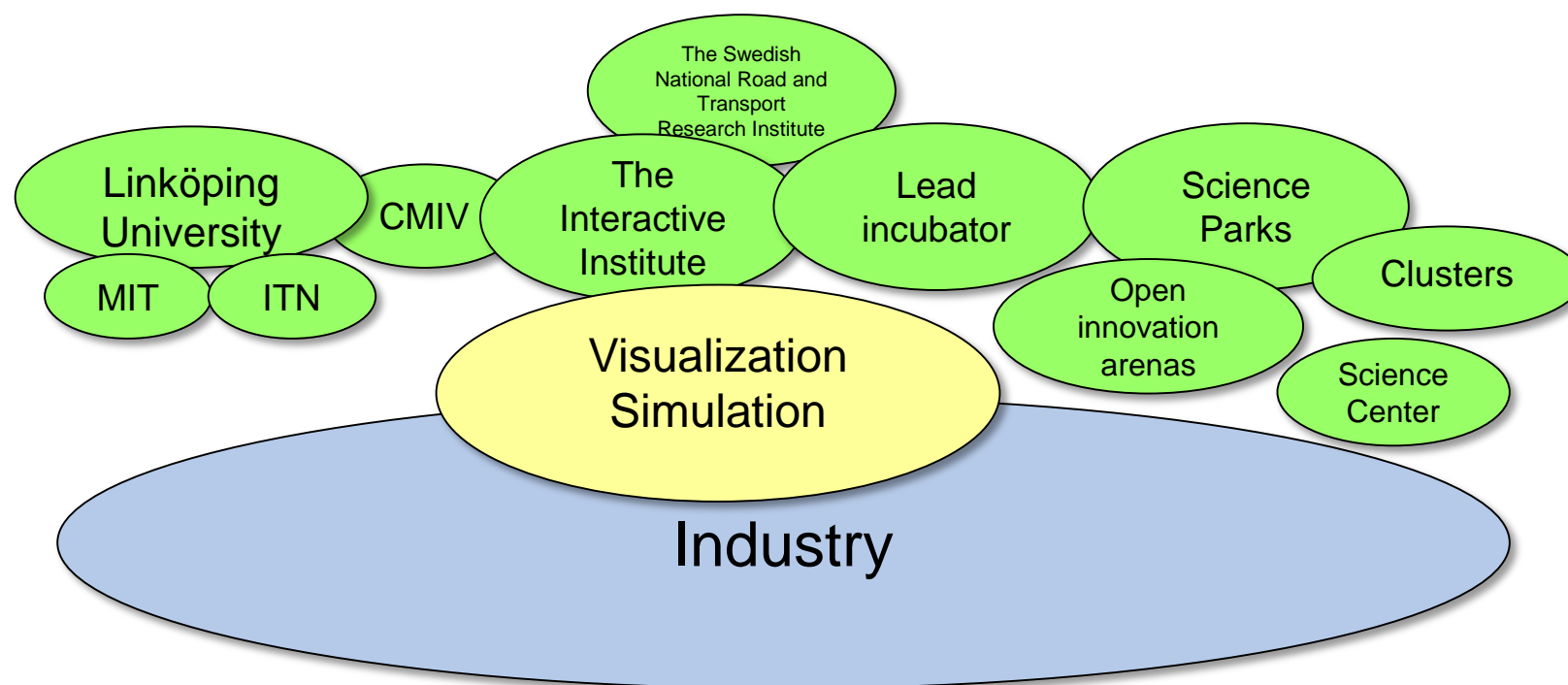
Mechanisms   Indicators   Follow up

Overall goal hierarchy

Attractive, internationally competitive, high growth industry — Vision

Increasing no of enterprises
Increasing no of new enterprises
Increasing employment
Increasing valued added
Increasing no of investments — Mission

Regionally and locally-based development efforts with strong regional leadership — Strategy

Regional policy mix - Design and implementation

Evaluation framework

| Level	Policy interventio	Effects	Results	Evaluation approach and management	Periodicity
System	ESBR	• Efficient and effective • Accessible • Demand-oriented • Attractive	Knowledge of and benefits for • Entrepreneurs • Innovators • Politicians • Civil servants • Visitors and investors	• Questionnaire • Workshops with regional stakeholders	TBD
Projects	Policy measures (e.g. support to science parks, incubators, etc.)	• Specific for each measure taken • Alignment with RIS3 priorities	Specific for each measure taken	E.g. external evaluators Stakeholder summits	TBD
Mission objectives			• Increasing no of enterprises • Increasing no of new enterprises • Increasing employment • Increasing valued added • Increasing no of investments	Analysis of regional and national statistics	TBD

Visualization/Simulation

Åke Rolf

(CEO Norrköping Science Park)

SMART
SPECIALISATION
PLATFORM

E⊳ST
SWEDEN
BUSINESS REGION

The Visualization/Simulation Eco-system (East Sweden)

The Swedish National Road and Transport Research Institute

Linköping University

MIT

ITN

CMIV

The Interactive Institute

Lead incubator

Science Parks

Clusters

Open innovation arenas

Science Center

Visualization Simulation

Industry

World Class Research

- # Research areas
  - ## Scientific visualization
  - ## Medical visualization
    - ### Illumination of medical images
  - ## Information visualization
  - ## Computer graphics and image processing
    - ### Virtual objects rendered real
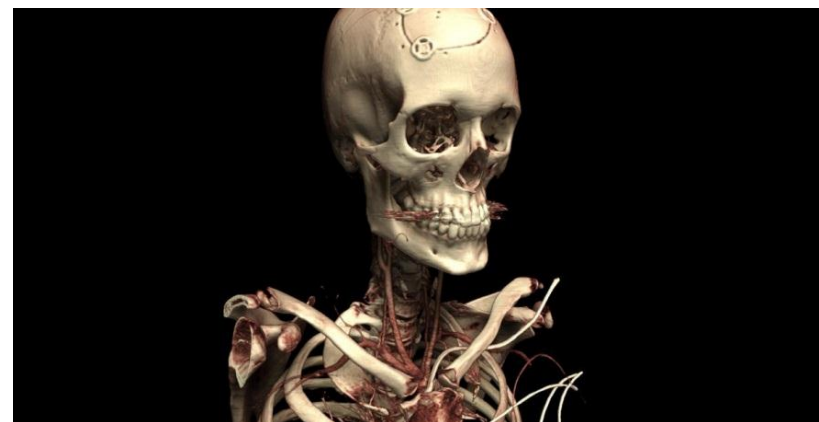
Research Institutes

- Interactive Institute Swedish ICT
  - Visualization for interactive and collaborative experiences

- Center for Medical Image Science and Visualization (CMIV)
  - multidisciplinary research center

- Acreo
  - research institute within electronics, optics and communication technologies

- VTI
  - The Swedish National Road and Transport Research Institute (VTI)

Science Center

- # Visualization Center C
  - Meeting point, lab, open innovation arena, public exhibitions, education, research …
  - Dome Theater

  - Consortium
    - Linköping University
    - The Interactive Institute
   - Norrköping Science Park
    - Norrköping Visualsering

Innovation support

- Open innovation arenas
  - Project Arena IVM
  - Demola
- Clusters
  - Interactive and Visual Medias (60 members)
- Incubators
  - Lead Incubator (regional)
- Science Parks
  - Norrköping Science Park
  - Mjärdevi Science Park
- Science center
  - Visualization center C
- Co production and living labs
  - Test bed Vilbergen
  - PEA Manufacturing

Open Innovation Arenas

- ## Project Arena IVM

  - Open collaborative innovation process

  - Joint project (ERUF)

    - Norrköping Science Park

    - LiU

    - Interactive Institute,

    - Norrköping Visualisering
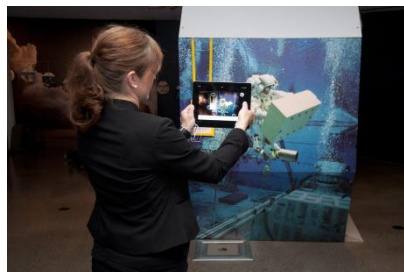
EU-project (2012-2013)
- 8 new companies
- 30 new jobs
- 58 development projects
- 26 prototypes
- 70 involved companies in projects

TILLVÄXT VERKET

CO-CREATION PLATFORM FOR TALANTED STUDENTS, COMPANIES AND UNIVERSITIES

eastsweden.demola.net

DEMOLA
EAST SWEDEN

DEMOLA
EAST SWEDEN

RESULTS | 2015

30 PROJECTS

160 STUDENTS

5 COMPANIES

25 EMPLOYMENTS

25 THESIS IDEAS

60 PROJECTS

300 STUDENTS

Focus area " Logistics of goods, services and humans – lean region"

- Presentation on pdf slide

Points for discussion

1. How do we secure continuous private commitment to the smart specialisation process?

2. What policy measures are effective to maximise university/research contribution to the smart specialisation process?

3. What approaches can be taken to ensure involvement of rural areas/smaller cities?

- Private commitment and contribution is crucial in order to secure need-orientation of both content (direction) and type of policy intervention. Furthermore, private involvement is needed to create sufficient impact of projects, etc.

- So far private involvement has been significant in the focus groups but also through the board of the regional marketing company.

- Focus groups have worked well, although differences in level of progress are apparent and depending on theme.

- Key issue now is how to maintain private involvement and commitment until projects can be started.

- The region is host to a number of public and semi-public research institutions including Linköping University. Research based knowledge is very strong in several areas relevant for innovation and therefore it is of very high importance to maximise the utilisation of this knowledge.

- There are several initiatives that aims at pushing and pulling out knowledge and results from the research institutions ranging from business development support (Framtidsföretag) to technology development (Nova Medtech and Printed Electronics Arena).

- In particular business-development supporting measures have been successful

- Technology development initiatives generally need more time and funding that originally accounted for, which creates problems from a regional policy point of view.

- The region has two metropolitan areas (Linköping and Norrköping) and their relative strength is polarising the region in terms of where people live and industry is located. However, regional innovation policy can not only target metropolitan areas but need to involve also smaller cities and communities.

- The regional initiative "East Sweden Business Region, ESBR" started in 2012 and aims at developing a common regional platform for innovation support.

- Achievements within ESBR include a new and inter-organisational platform for managing different grant schemes targeting SMEs.

- ESBR still struggles to find and exploit important themes that concerns and mobilises all regional actors including municipalities.