

Nordic Network for Industrial and Urban Symbiosis (IUS)



Murat Mirata
23 November 2017

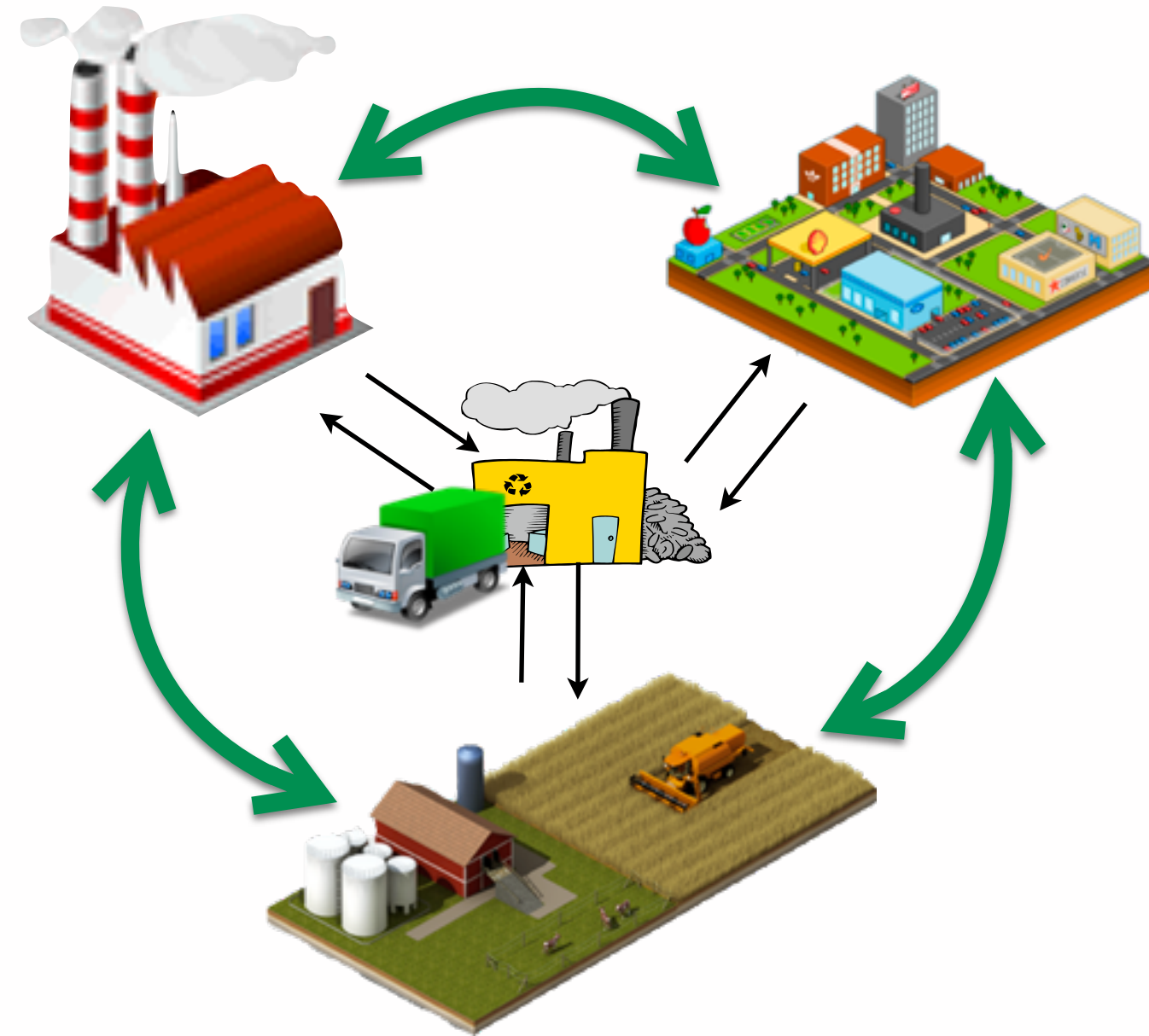
Industrial and Urban Symbiosis (IUS) research group in Linköping University

- Dedicated research & education on IUS.
- Team has 17+ years of experience with understanding development and performance, and facilitation – in Europe & Sweden
- Supporting practical implementation of IUS for bio-based and circular economies
- Master & PhD level education on the topic
- Maintain a web-portal of Swedish IUS cases
- Birth place of the Swedish and Nordic IUS networks and co-leader of both developments.



Industrial and Urban Symbiosis

Innovative multi-actor, cross-sectoral collaboration processes—primarily at local/regional levels—and resulting collaborative innovations that meet industrial and societal needs more sustainably.



Industrial & Urban Symbiosis Landscape



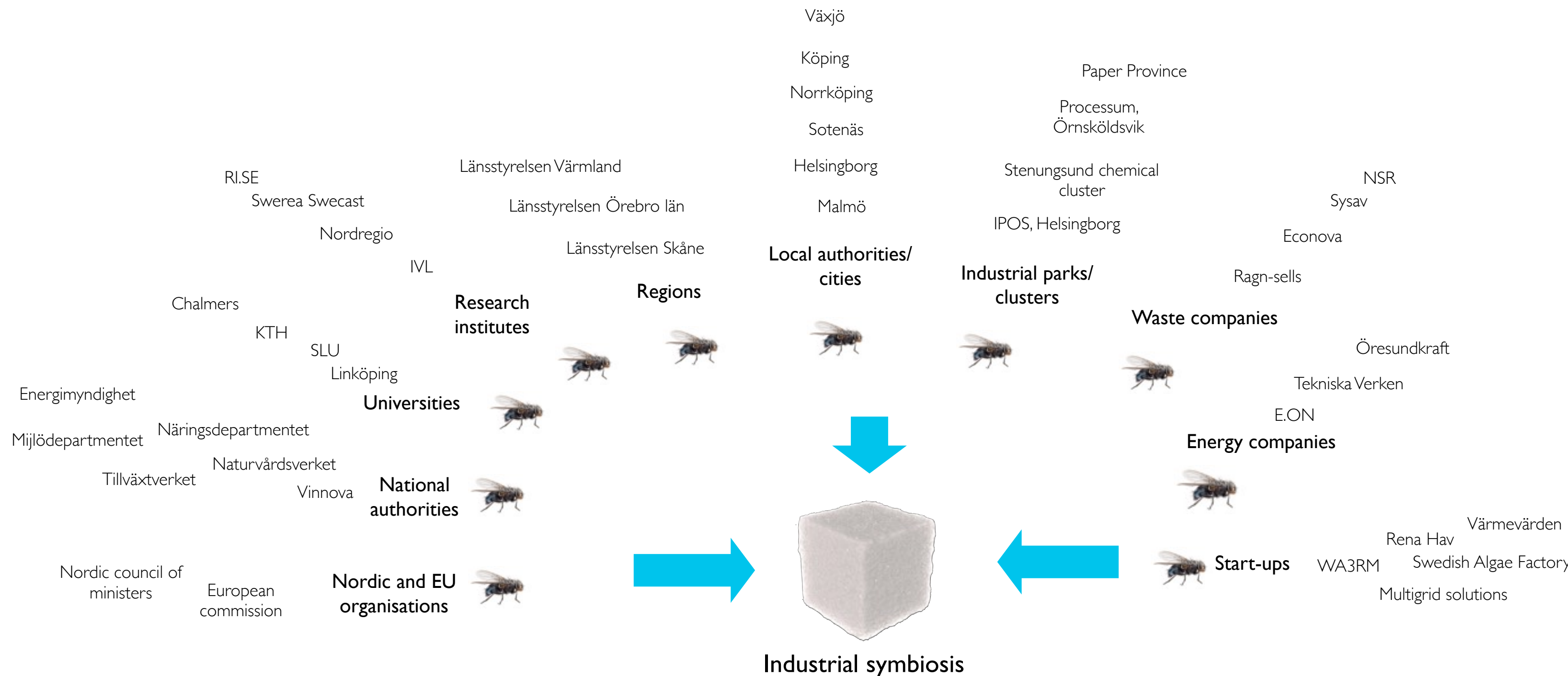
Increasing private &
public interest for
systemic support

Industrial & Urban Symbiosis Landscape

Increasing number of local/regional programs



Industrial & Urban Symbiosis Landscape



Industrial & Urban Symbiosis Landscape

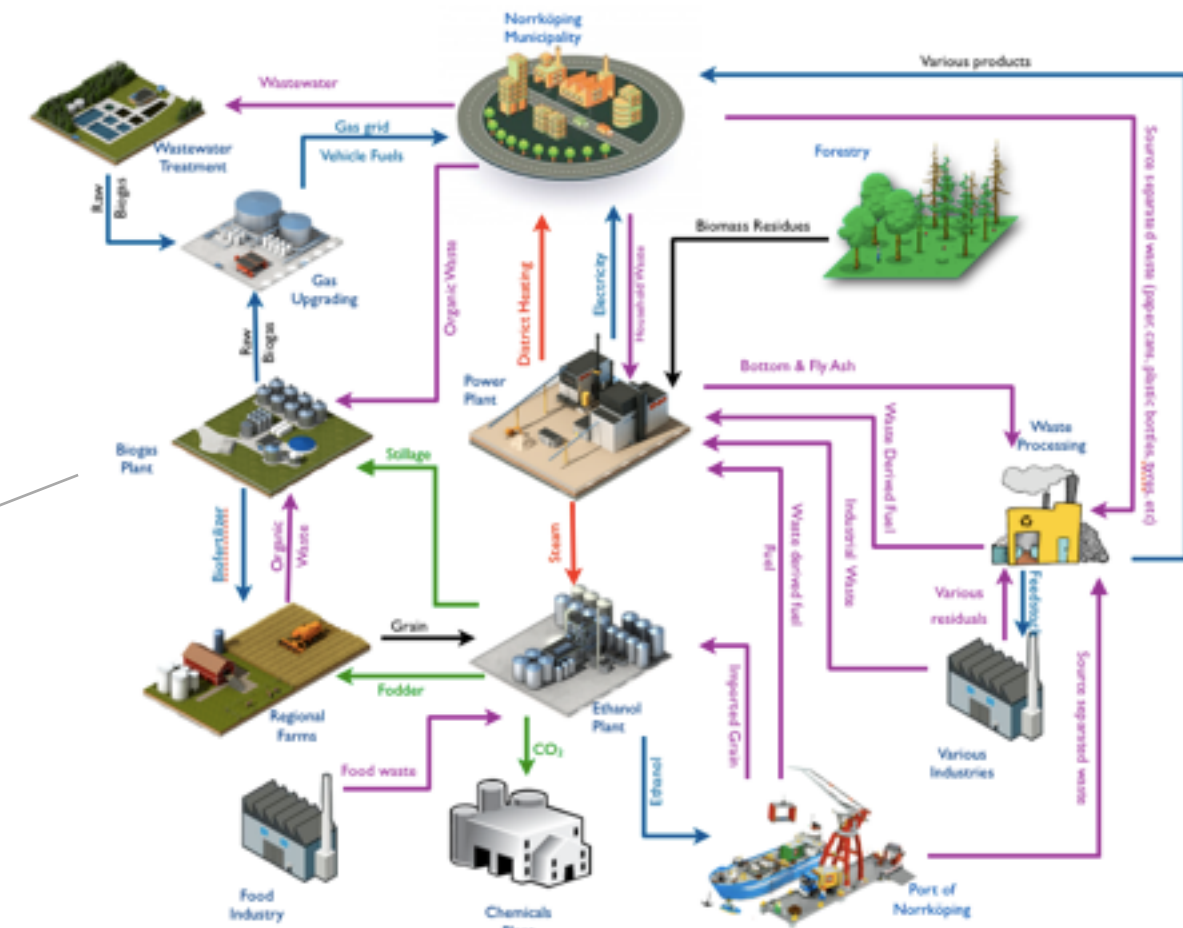
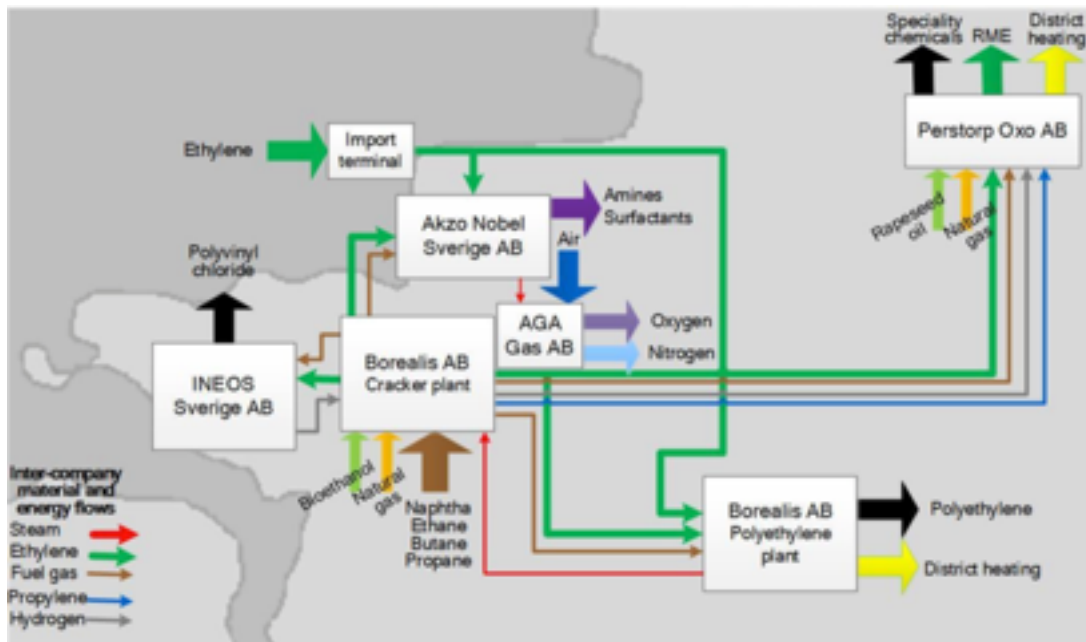
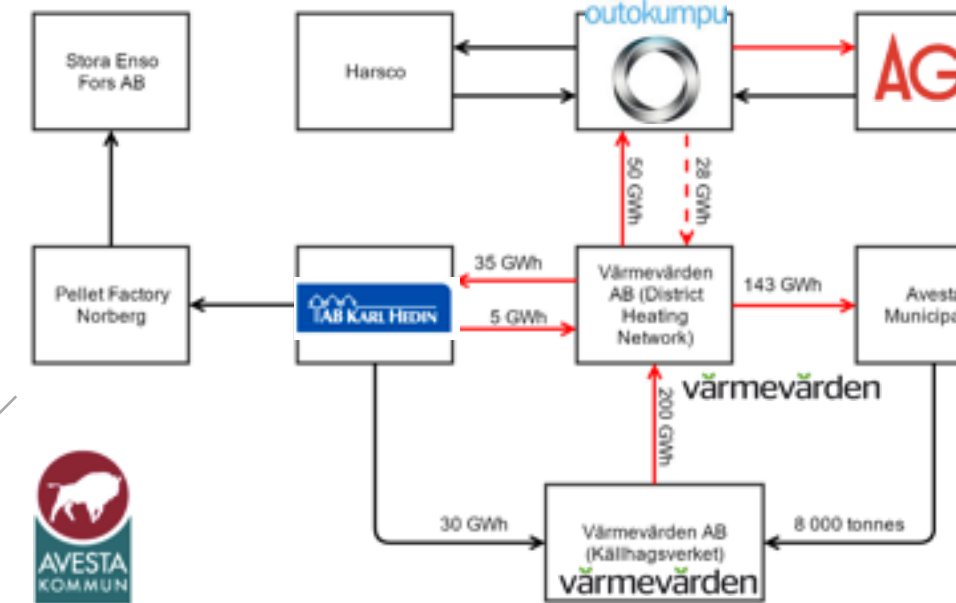
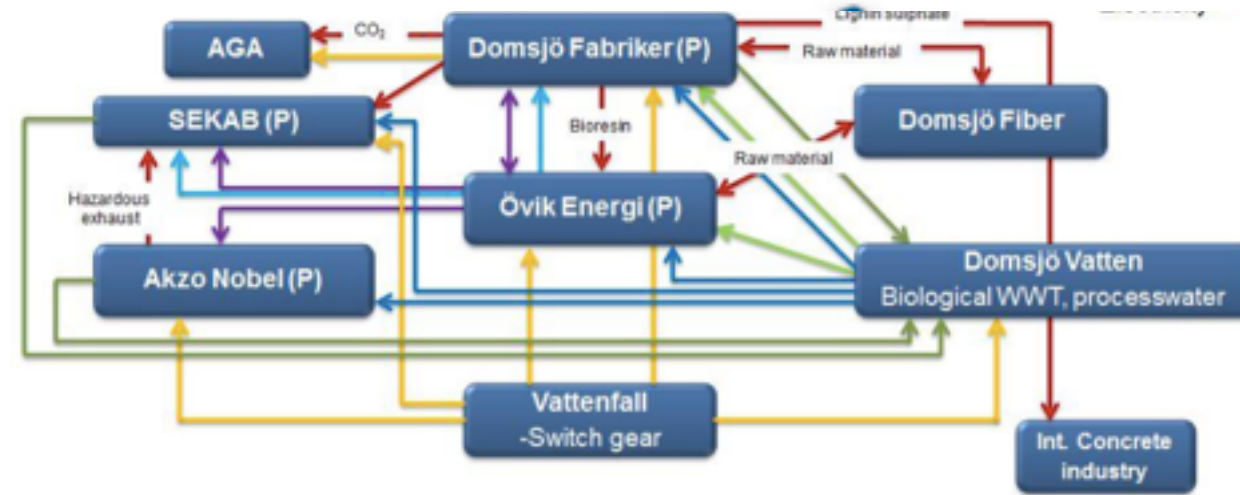
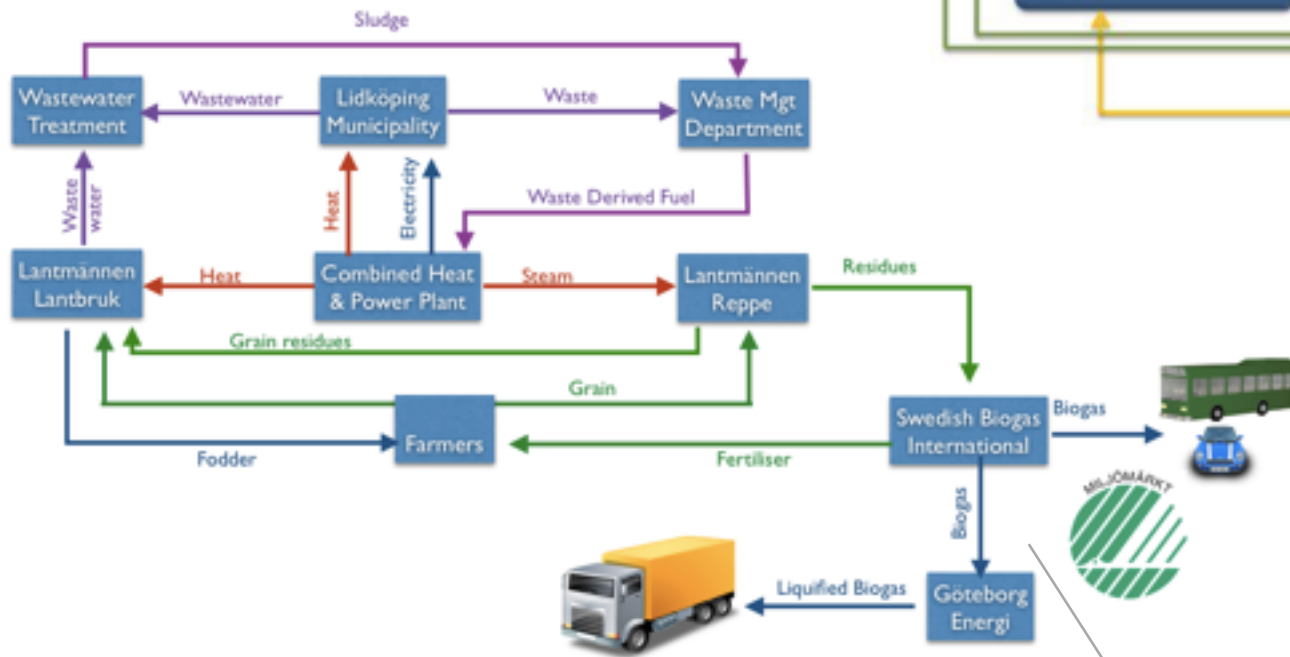


Increasing private & public interest for systemic support

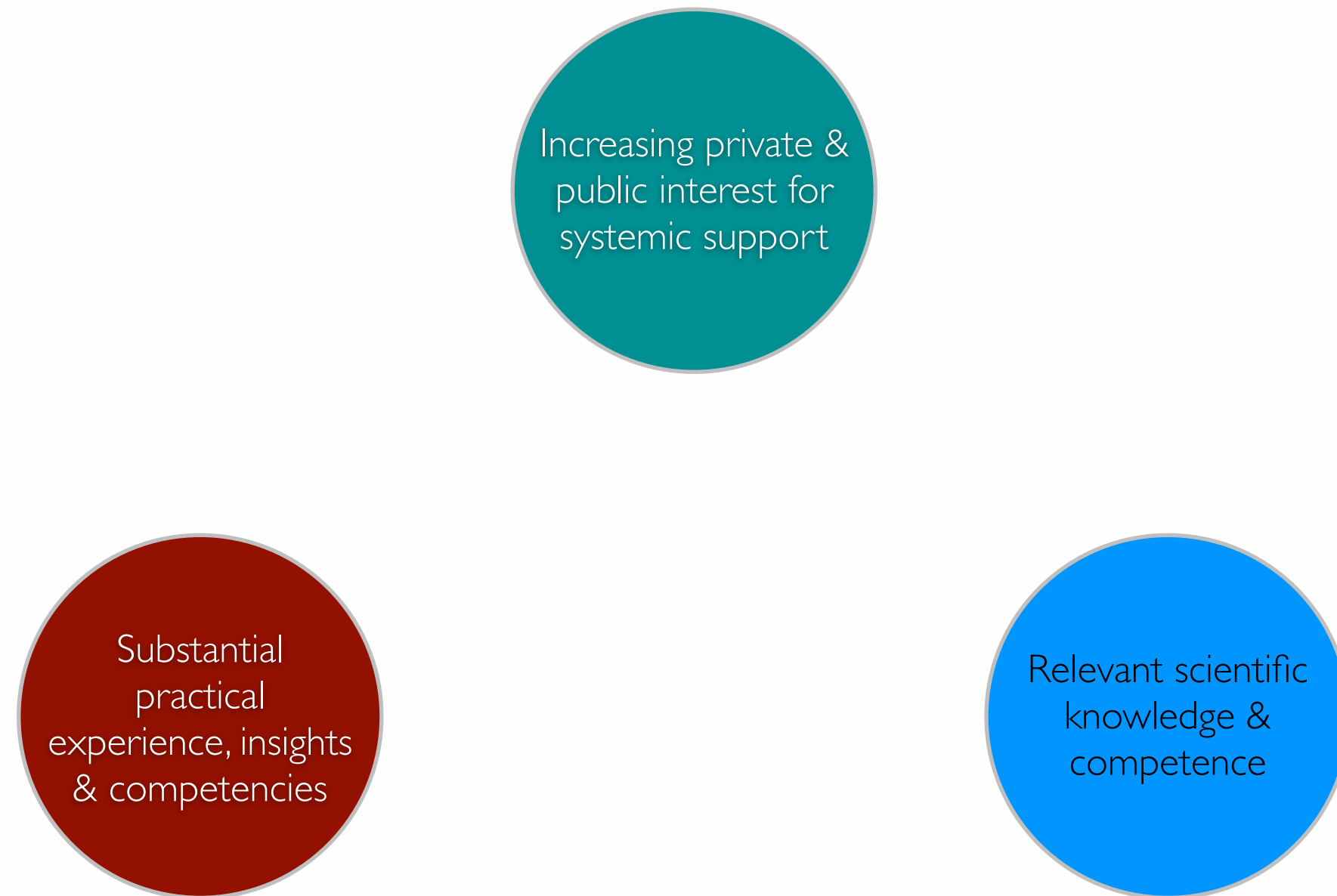
The diagram consists of two circles. The top circle is teal and contains the text 'Increasing private & public interest for systemic support'. The bottom circle is dark red and contains the text 'Substantial practical experience, insights & competencies'. The circles are positioned diagonally, with the teal circle at the top right and the red circle at the bottom left.

Substantial practical experience, insights & competencies

Swedish examples



Industrial & Urban Symbiosis Landscape



Industrial & Urban Symbiosis Landscape

li.u LINKÖPING UNIVERSITY

Key success factors
& barriers



Effective support
functions and approaches



Analytical tools



Specialised technologies

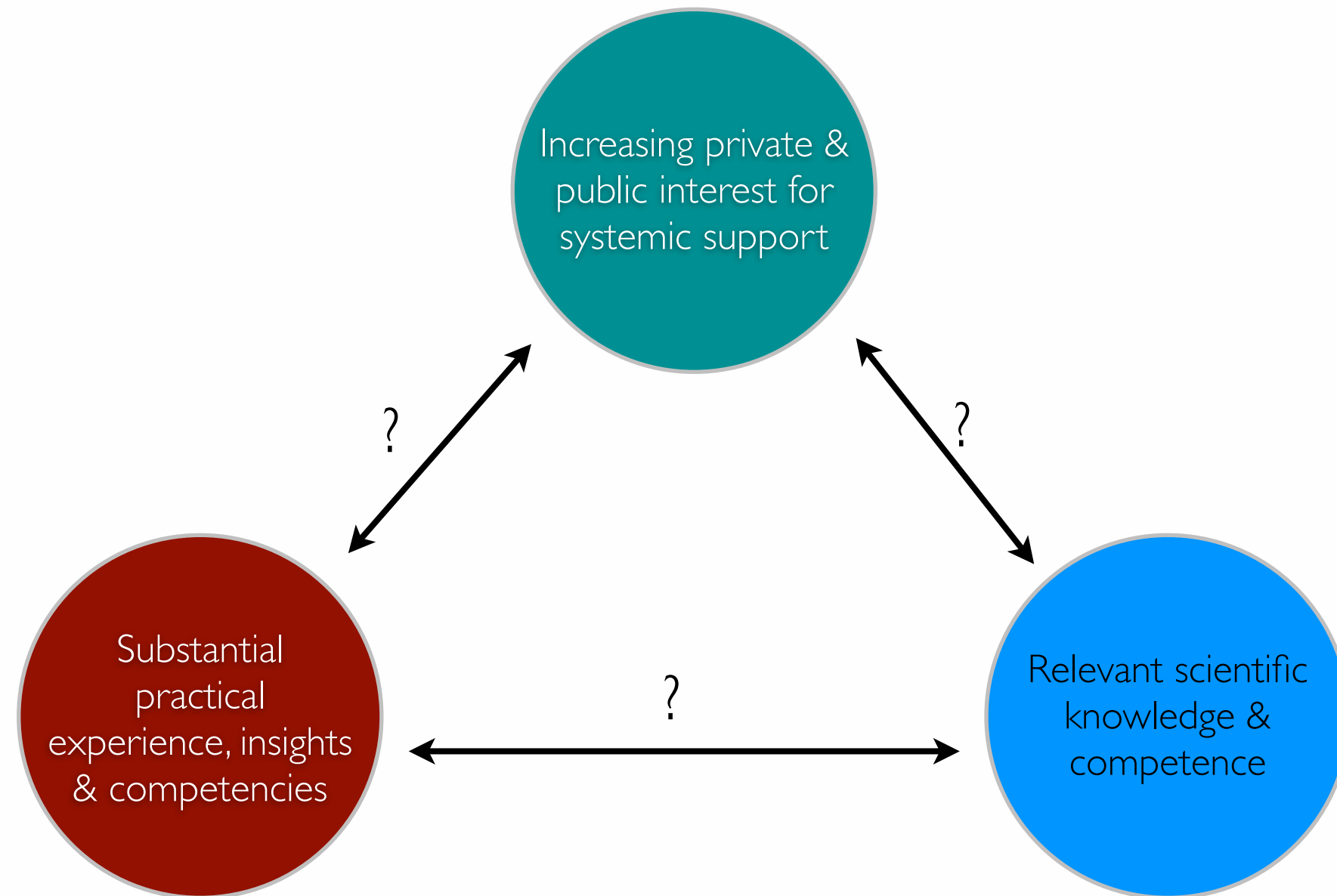


Business models



Expert networks

Industrial & Urban Symbiosis Landscape



Networks & networking

Exchange, sharing, generation, and utilisation of individual and collective resources enabling superior

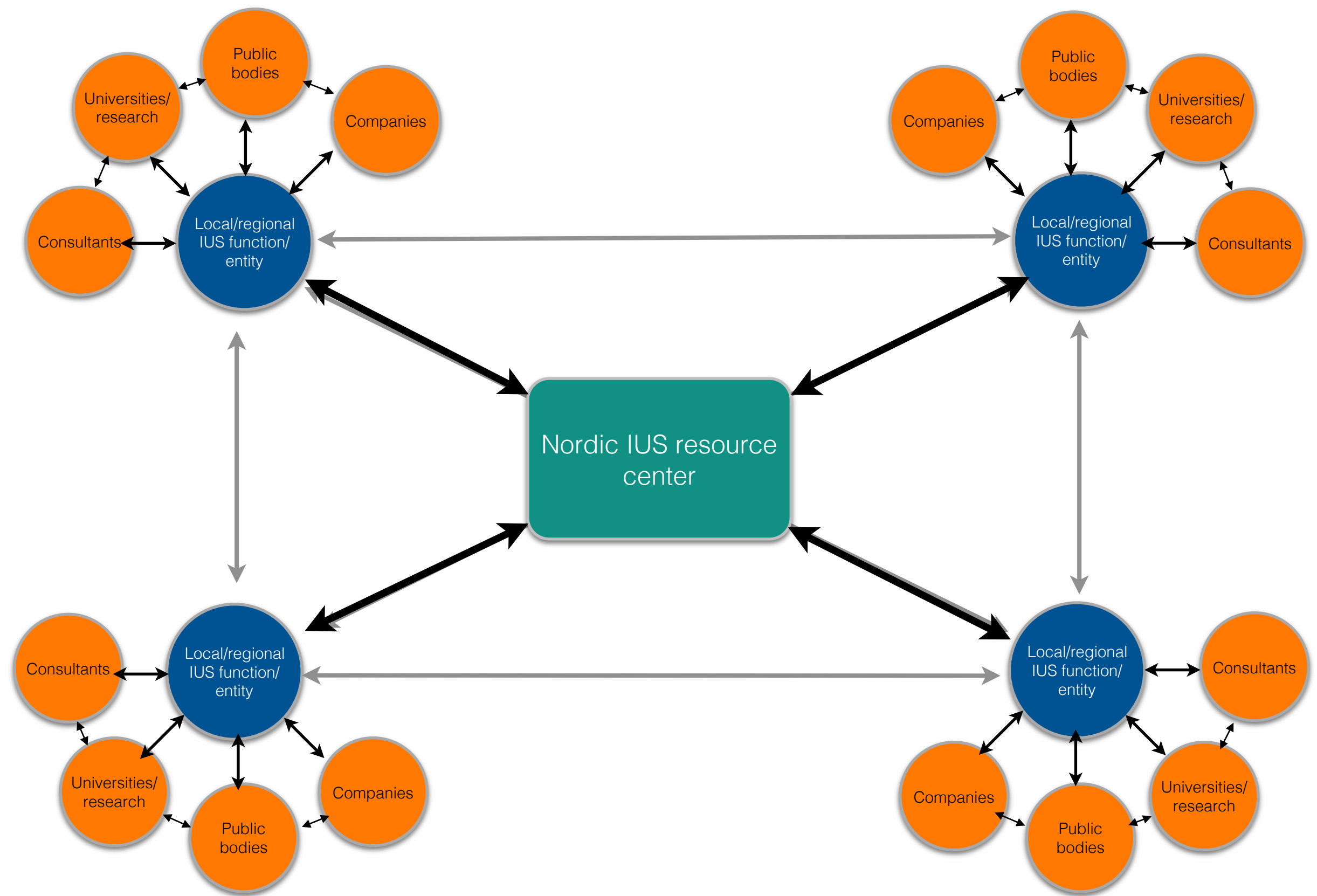
Why a Nordic Network?

Similar dynamic - inadequate communication and cooperation presents untapped potential.

- A healthy balance of similarities & differences
- Advanced with IUS practices and have a unique understanding/interpretation of the concept
- Common values & institutional structures
- Compatible needs and capabilities among regions/actors
- Potential to by-pass political/bureaucratic traffic jams at the national levels



Our vision



Nordic IUS network & Resource Center

Main Goal: Supporting practical IUS developments in Nordic regions.



Key Objectives

Build/enhance
regional capacity to
support IUS

Improve knowledge
creation, cooperation,
& learning

Develop & diffuse
tools benefiting all
members

Form a common &
amplified voice
towards key actors

Improve national &
international profiling

Nordic Network for Industrial & Urban Symbiosis (Nordic-IUS)



TAMPERE

???

What we are?

An informal entity empowering actors interested in practical IUS developments, and moving towards a vision.

Members & membership?

Actors with a genuine interest in practical IUS developments and with concrete ideas on how to contribute and/or benefit from the network.

Members contribute with their own resources - while we continue to seek additional resources

What do we do?

<http://www.industriellekologi.se/symbiosis/>



Industrial Symbiosis in Sweden

Home | About the project | Reports | Submit an Idea

Welcome

Industrial symbiosis refers to relationships among economic activities with geographic proximity where environmental and development benefits are obtained through exchanging resources or through other forms of synergistic relations. The concept is gaining increasing attention within the domains of academic research, public policy, as well as corporate and regional strategy. Sweden is rich in industrial symbiosis networks, but little is known about these. The primary purpose of this project is therefore to share information about industrial symbiosis networks operational in Sweden and make the learnings they provide available to a wider audience.

The original research for the networks included in this portal is performed by the Master's students and researchers in Linköping University.

Use the map on the left, or the links below, to jump to a section and learn more about an industrial symbiosis network.

- Industrial symbiosis in Lidköping
- Industrial symbiosis in Norrköping
- Industrial symbiosis in Helsingborg
- Industry Park of Sweden
- Industrial symbiosis in Enköping
- Industrial symbiosis in Stenungsund
- Industrial symbiosis in Avesta

A project of  Environmental Technology and Management at  Linköping University

Create and diffuse new knowledge
(and in the process also raise the profile of good practices)



Link people and places



Communicate and support
each other as needed



Organise regular events

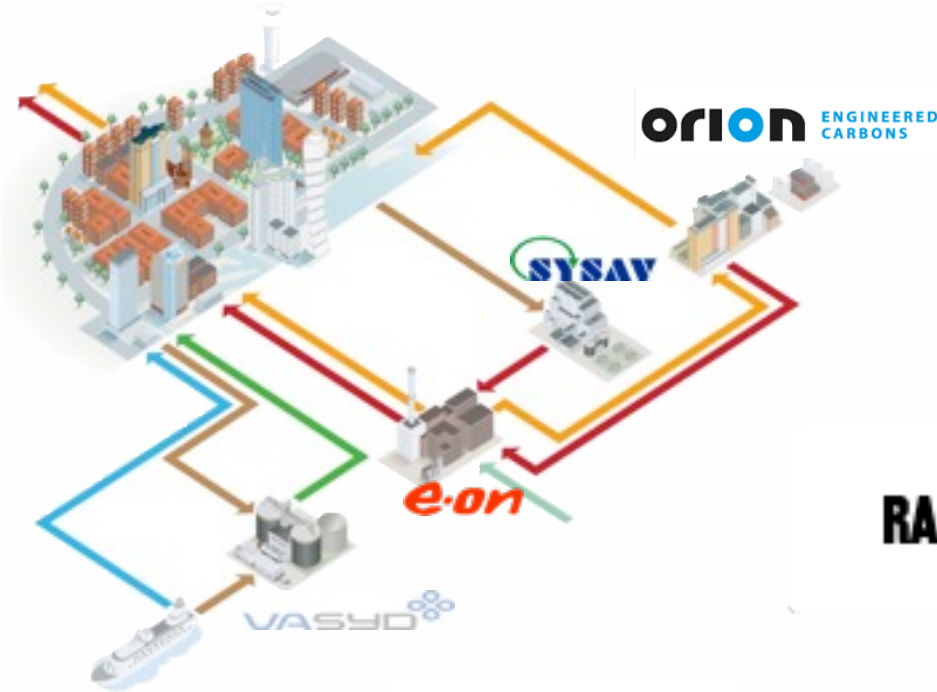


Jointly develop projects

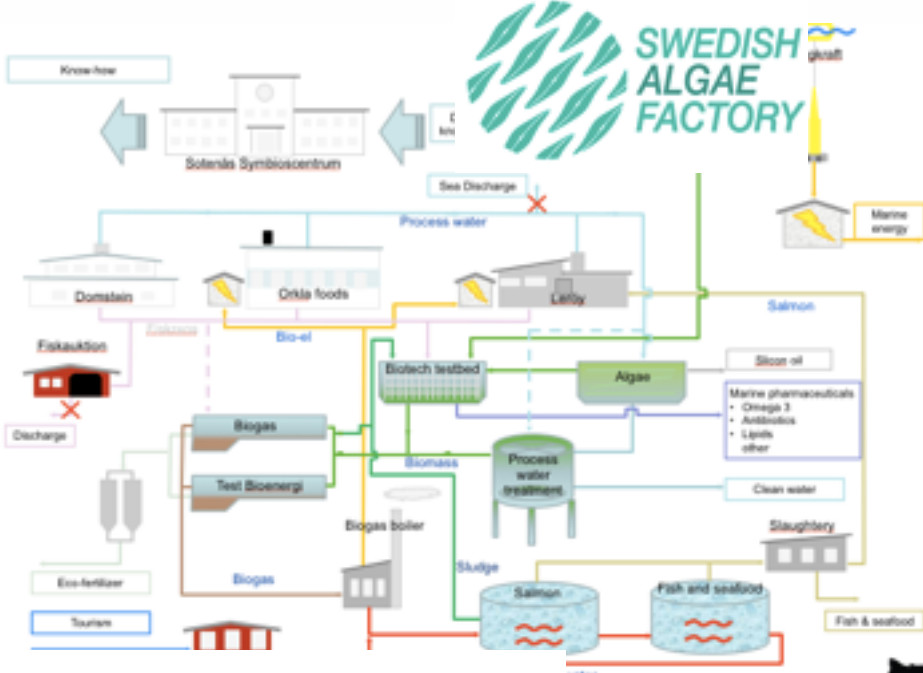
E.g. Institutional capacity for IUS (Vinnova)



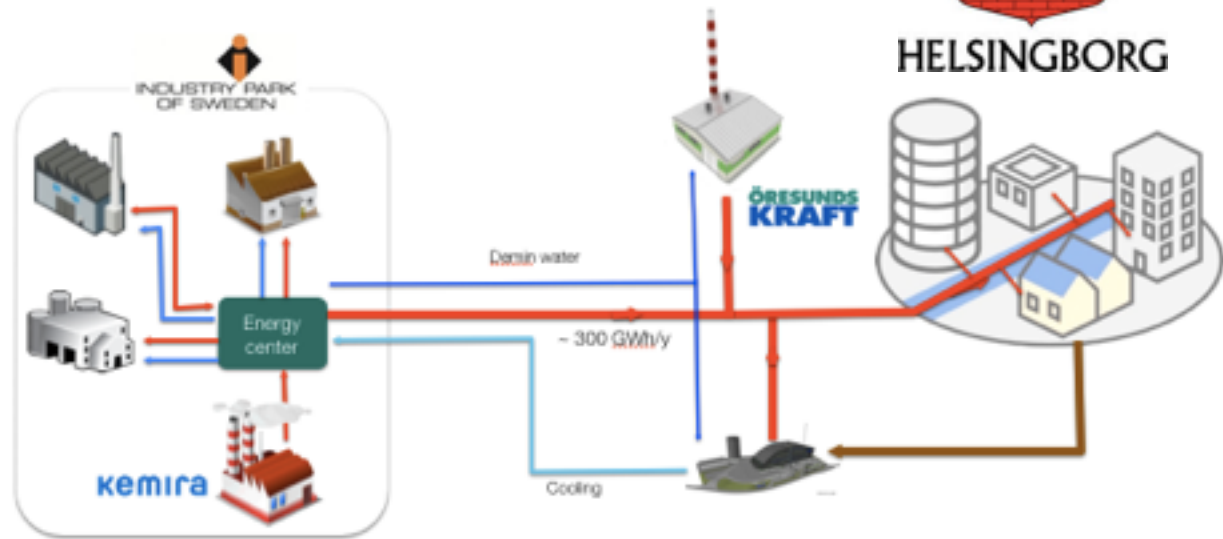
Malmö stad



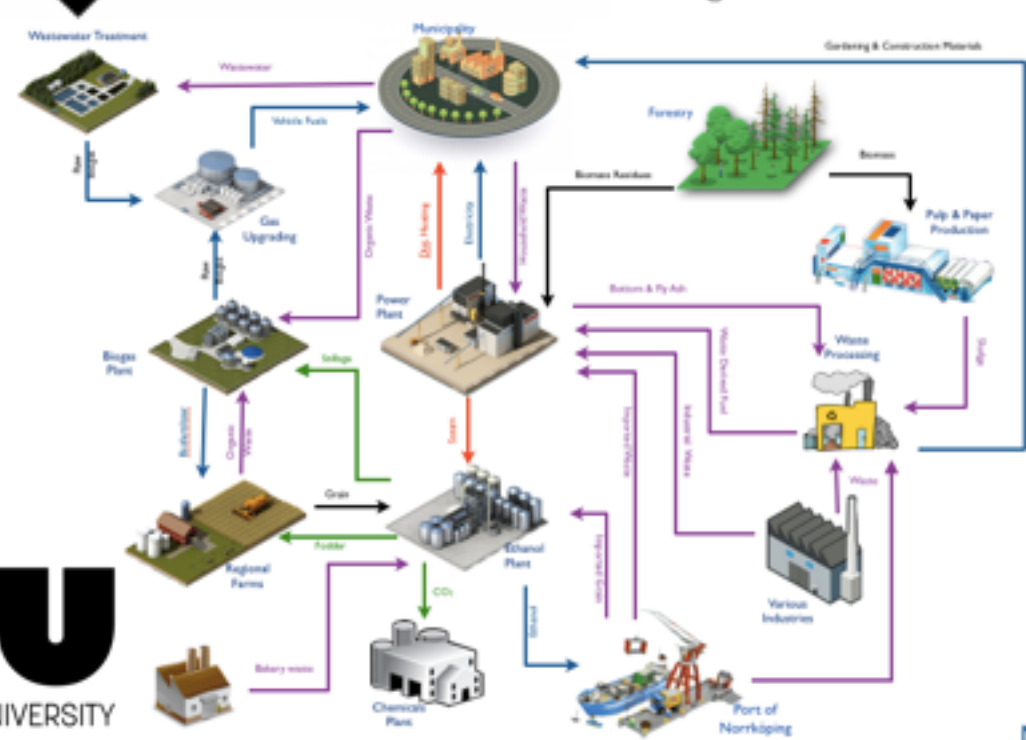
Sotenäs kommun



Upplands-Bro kommun

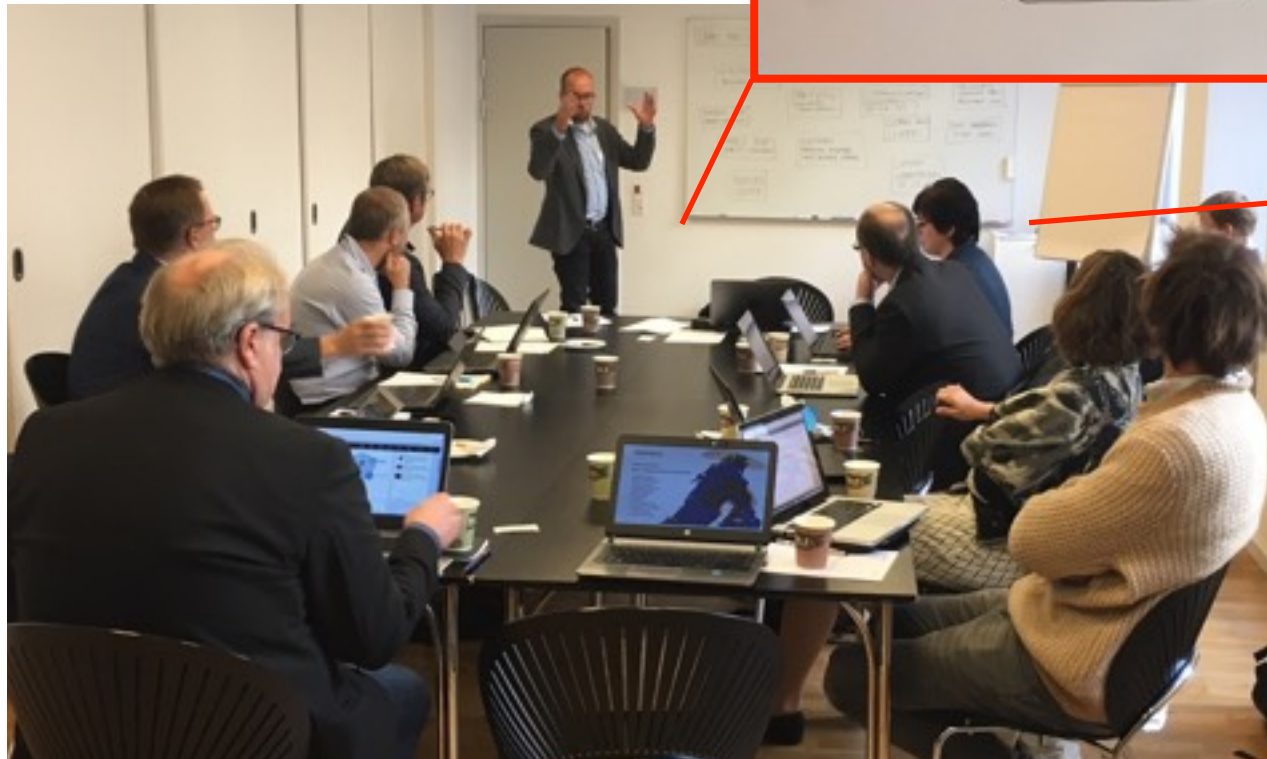
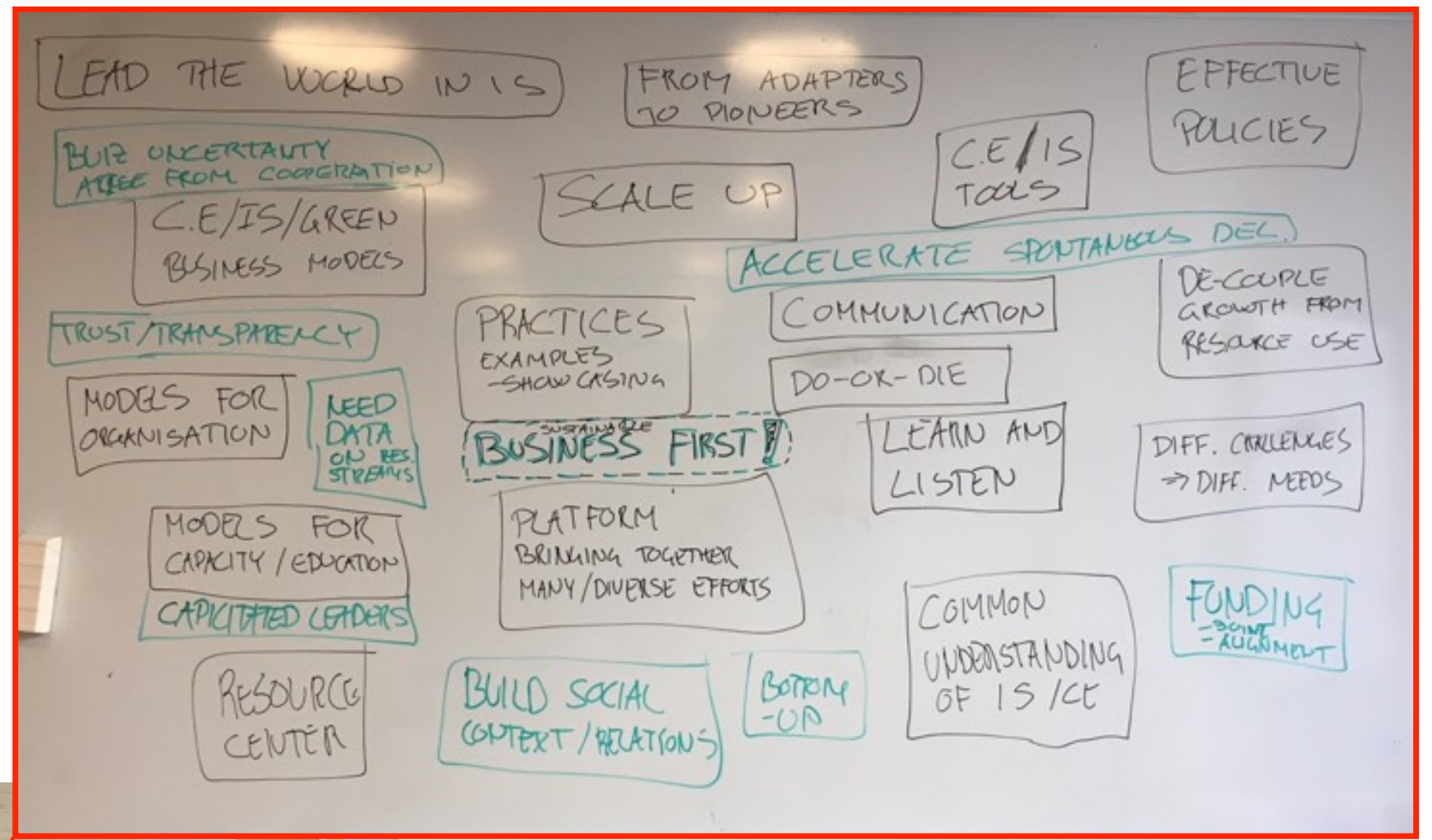


Helsingborg



LINKÖPING UNIVERSITY

A recent example



Thank you



murat.mirata@liu.se
+46 734 613 139