

Building a international Knowledge Region – ESS Scandinavia, Lund Sweden

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Global Government &

Public Services Leader

Project Leader ESS Strategic Analysis

Paris, May 28-29, 2009

Society for Science – Science for Society

**The European Spallation Source in Lund – effects
on regional development***





Foto: Martin Andersson



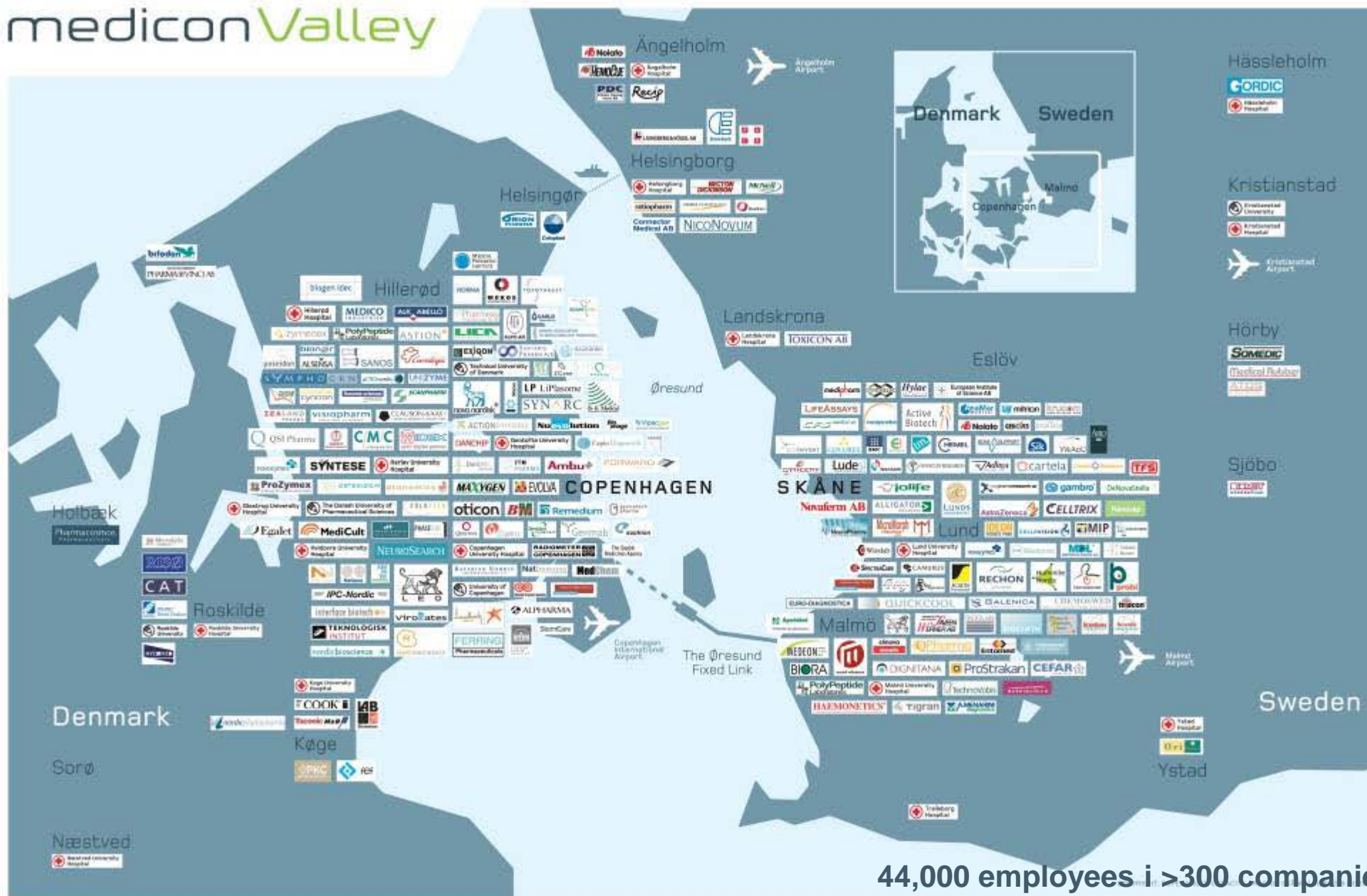
12 universities
150,000 students
14,000 researchers
6,500 PhD students
4,000 foreign students
7 science parks

MEDICON VALLEY

MEDICON VALLEY
Anno 1997



mediconValley



12 universities, 32 hospitals

44,000 employees in >300 companies
in biotechnology & pharmaceuticals
+9% 2003-2007

Medicon Valley – Cluster profil

medicon valley alliance

Clustering life science

Drug discovery & development
Drug delivery
Biotech medical technology
Diagnostics
CRO
Drug production
Biotech tools and supplies
Bioproduction
Agricultural biotechnology
Environmental biotechnology
Food related biotechnology
Industrial biotechnology
Healthcare equipment
Implantable devices
Anesthetic Respiratory
Dental device
Electro medical and imaging eq.
Ophthalmic devices
Surgical instruments
Medical disposables
CRO medtech
IT and training
Audiologic devices

Broad R&D

Narrow R&D

Consult. Prod Dev. Manufacturing

product on market



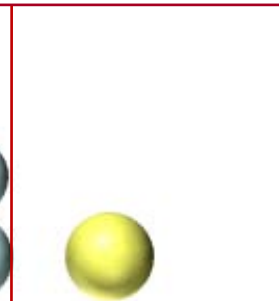
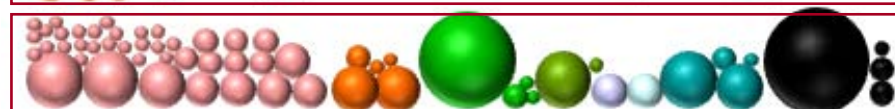
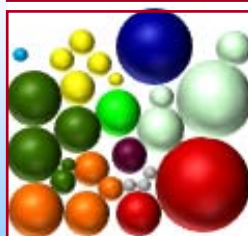
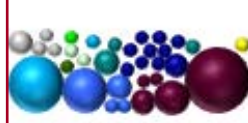
no product on market



product on market



no product on market

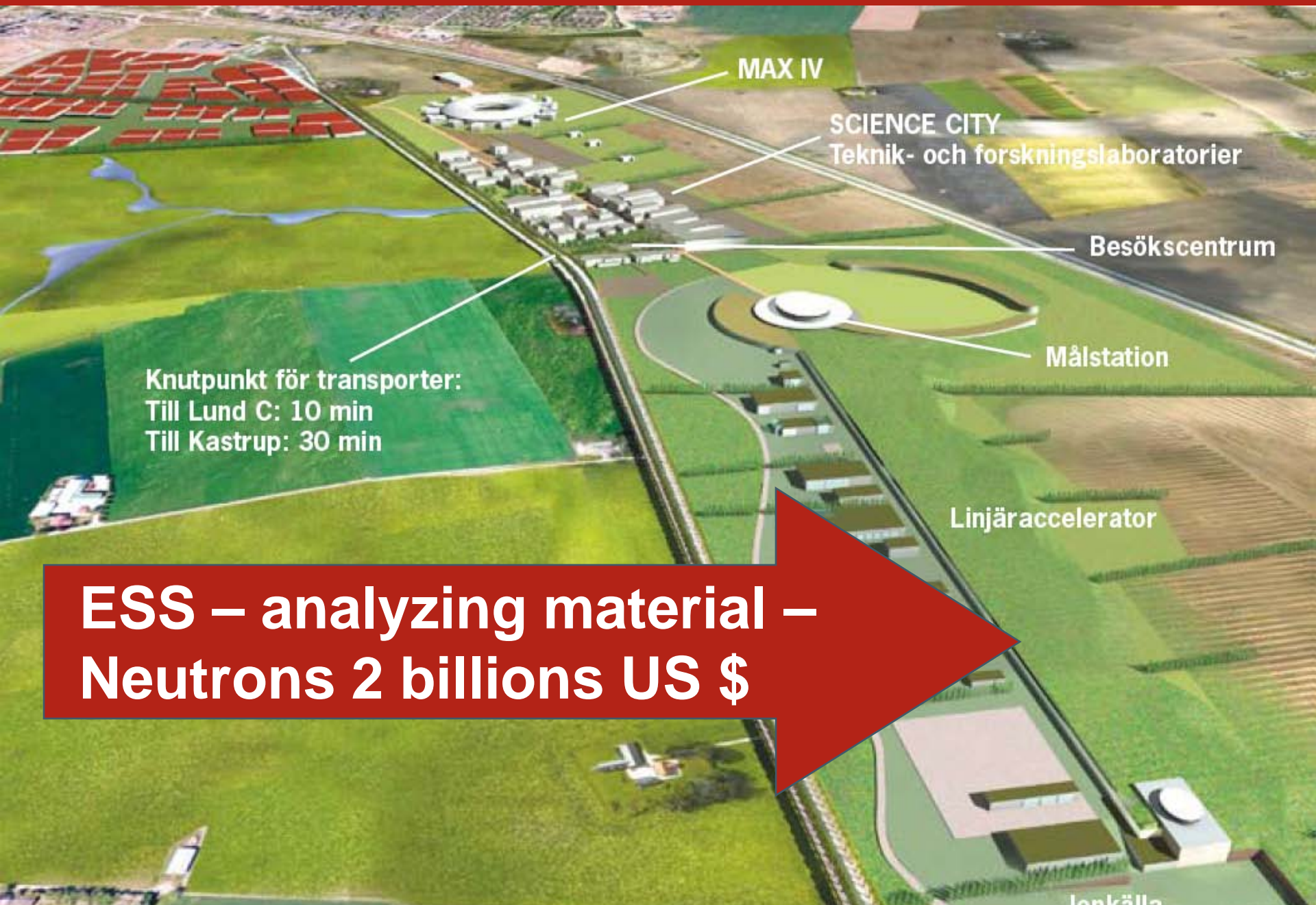


Skåne/Sweden

Sjælland/Denmark

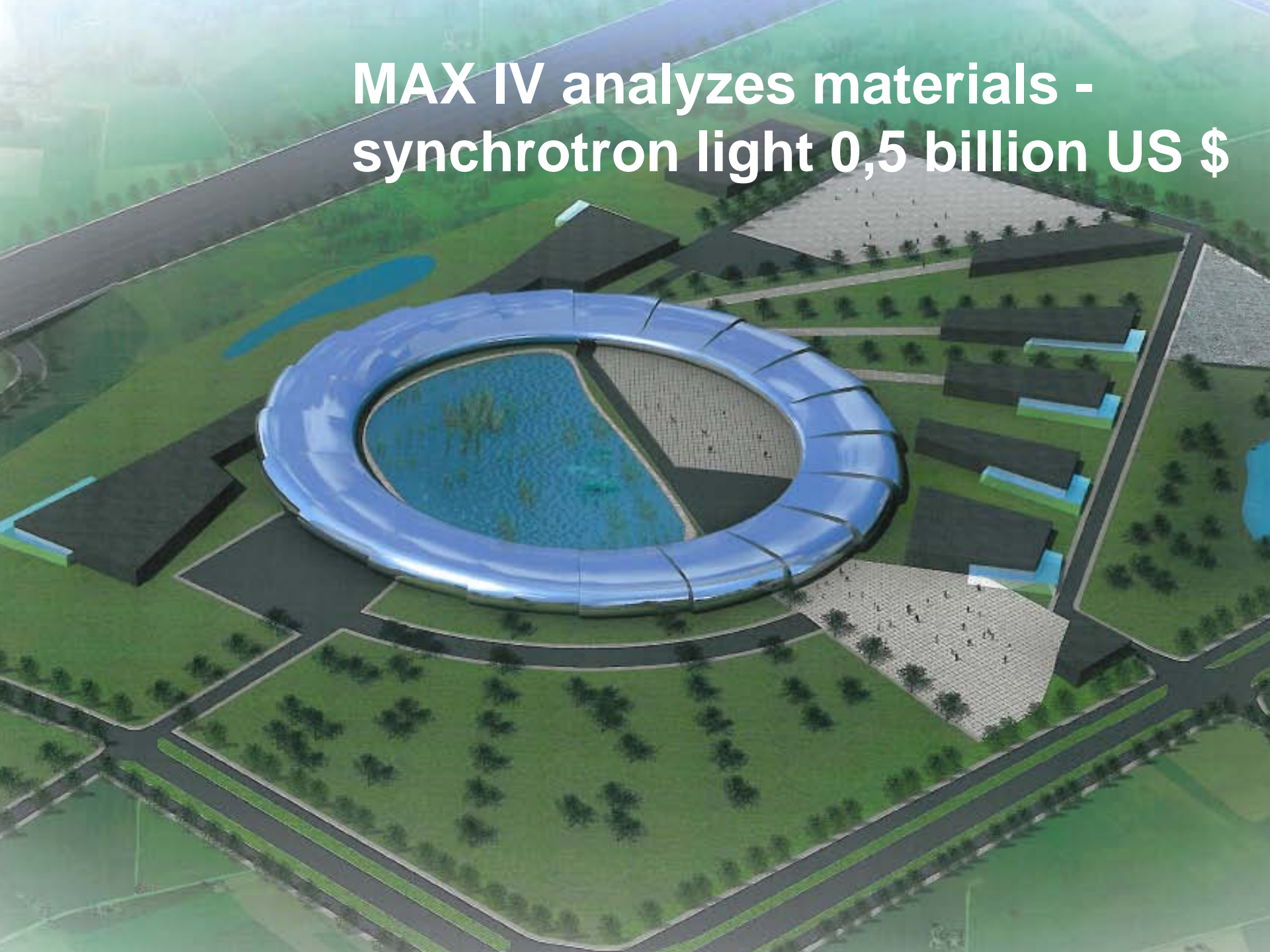
NCS Denmark

VINNOVA

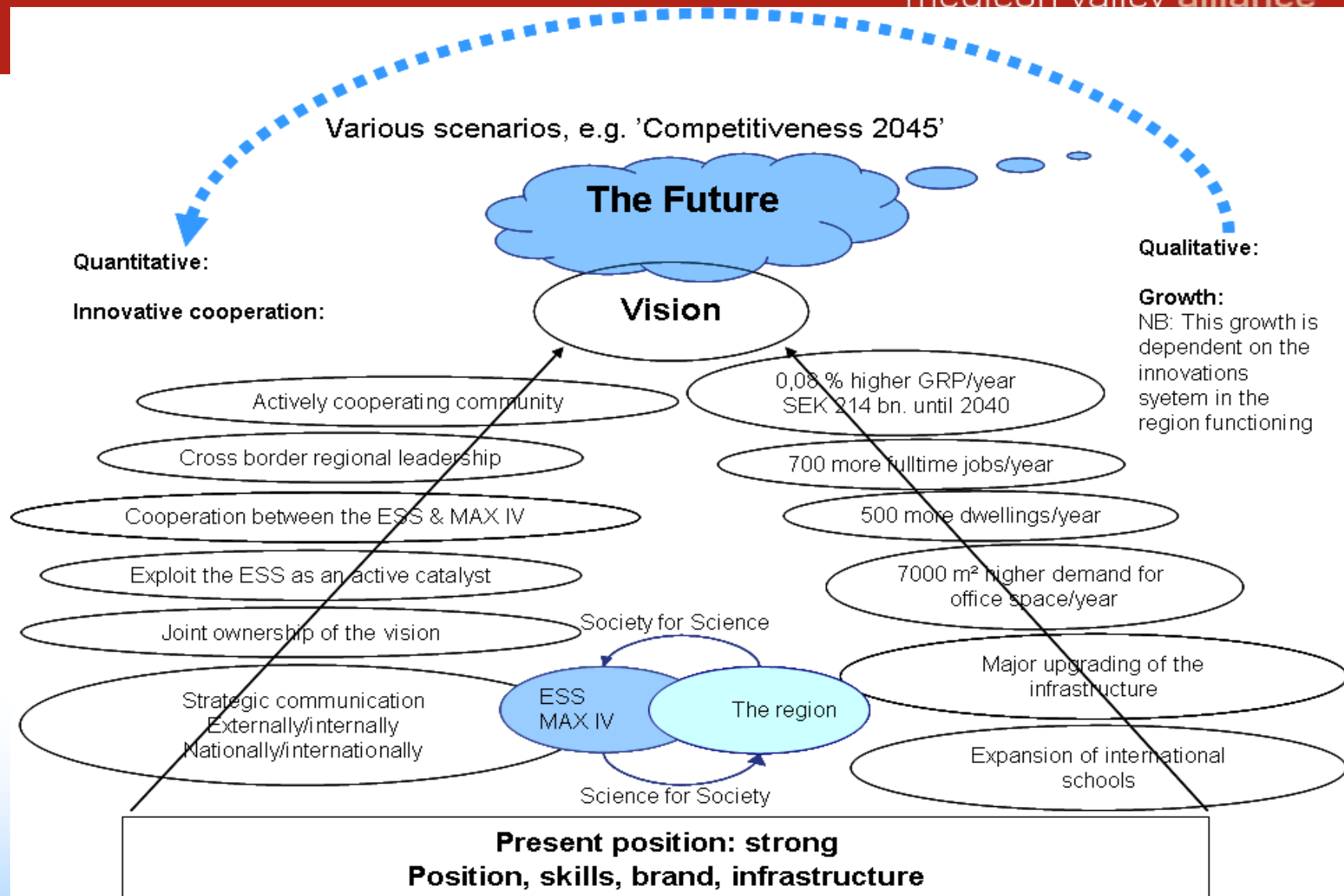


**ESS – analyzing material –
Neutrons 2 billions US \$**

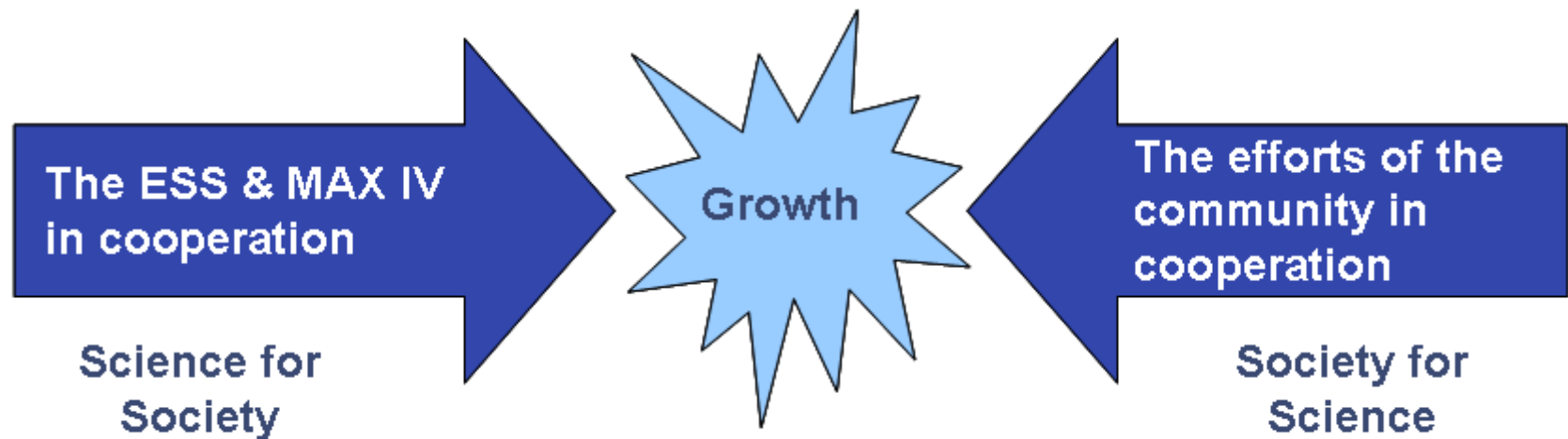
**MAX IV analyzes materials -
synchrotron light 0,5 billion US \$**





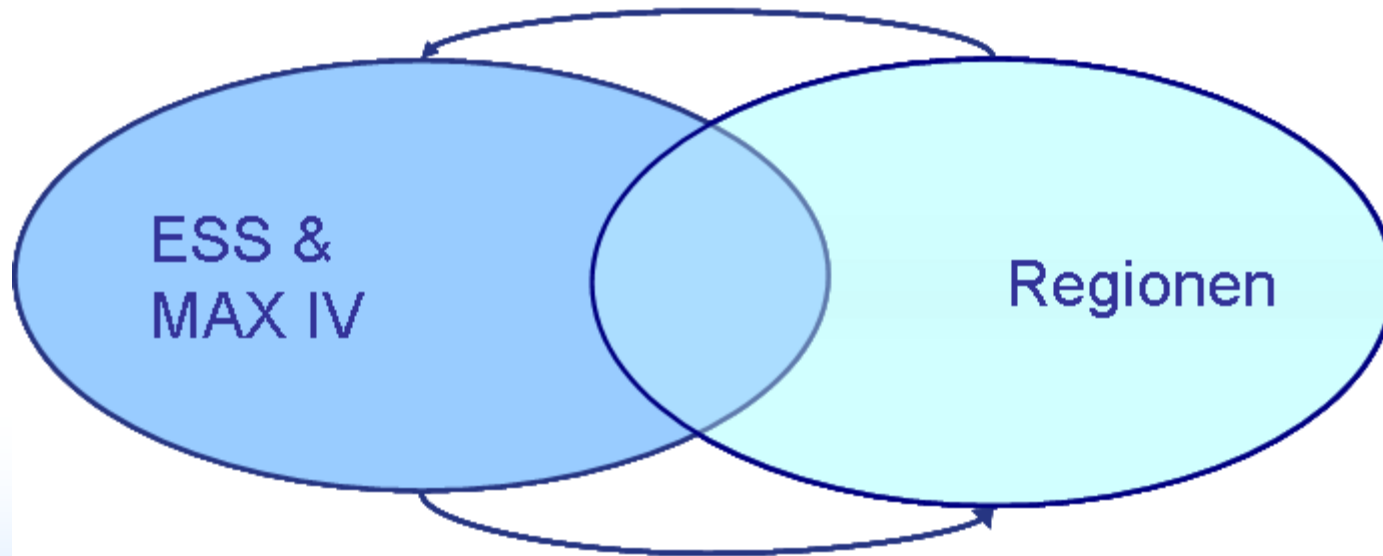


The Strategic Balance Act



Mutual benefits

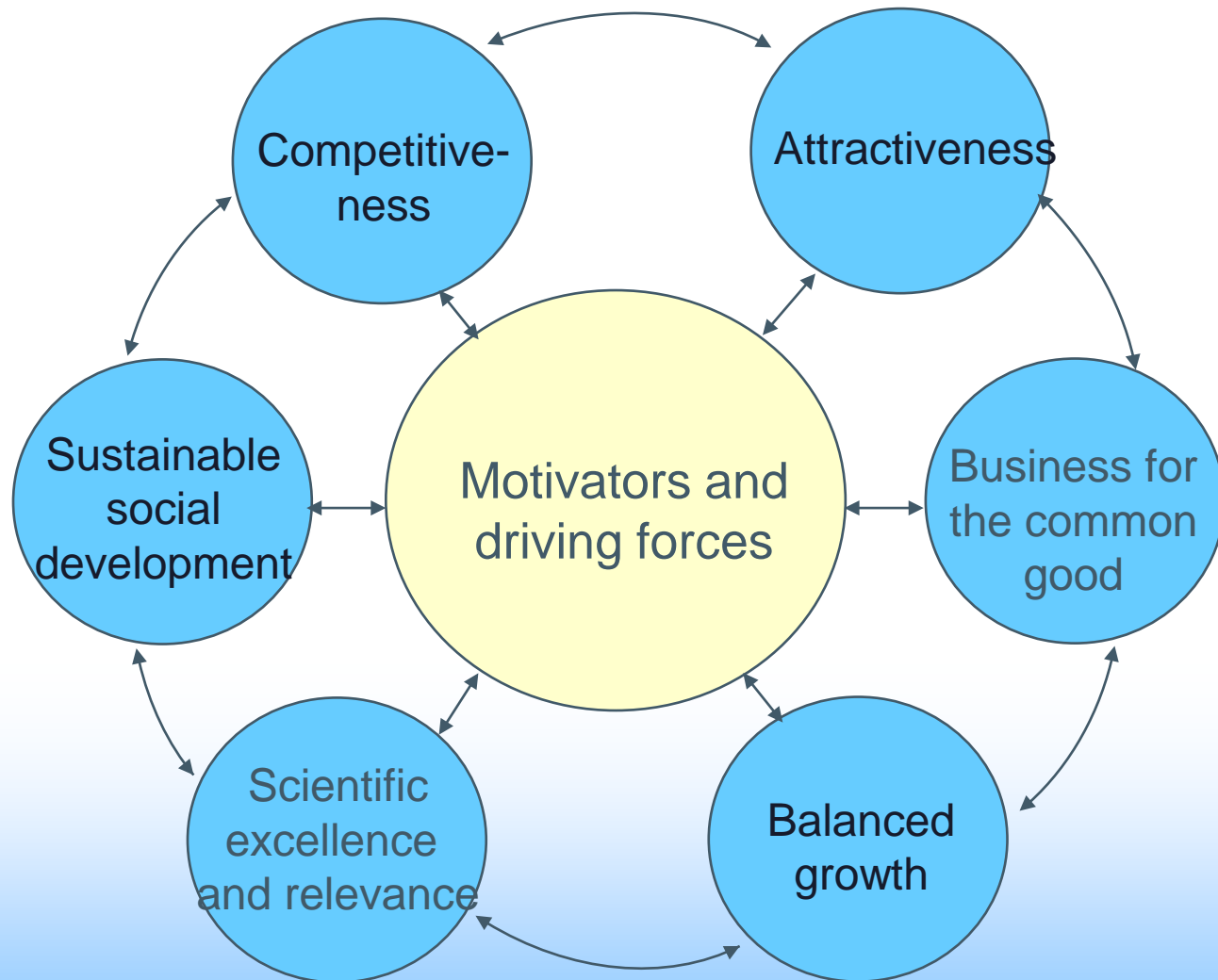
”Society for Science”



”Science for Society”

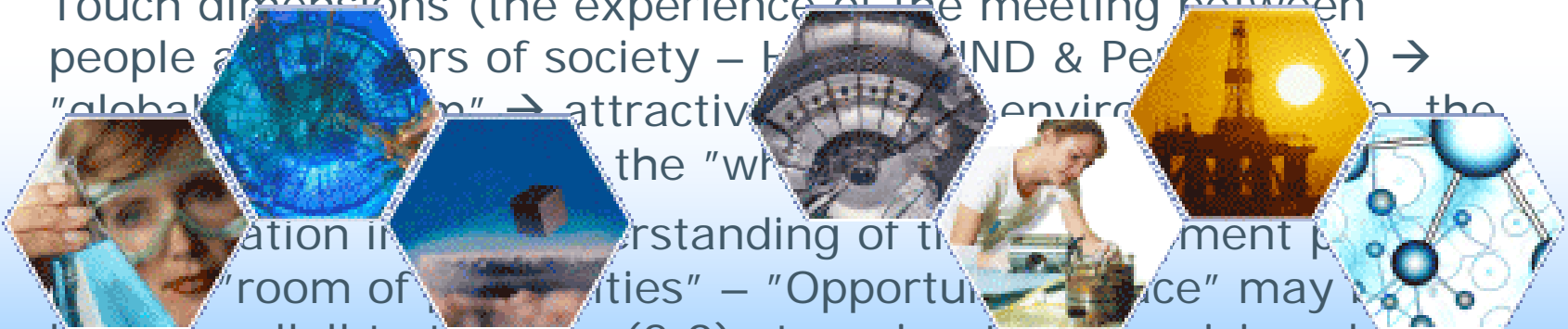
Strategic Intent

Clustering life science



Our strategic points of departure

- An international "Landmark of Science, Technology and Sustainable Development" in Lund, "MA-Skåne", Öresund, Sweden, Scandinavia → competitive edge for the EU.
- A new and exciting innovations territory for the future connection/meeting where the "mould" in the territory, and its national and international bridges of knowledge (relations) will determine the success for the region through (among other things) the ESS and MAX IV.
- A unique fusion of the Hi-Tech (scientific development) and Hi-Touch dimensions (the experience of the meeting between people and the actors of society – Economy, Environment & People) → "globalisation" → attractive environment for the "winning" innovation in the understanding of the development process – "room of possibilities" – "Opportunity space" may be lever parallel to the new (2.0) story, i.e. that the vision about ESS takes form and generates ideas about growth for all types of capitals (resources).

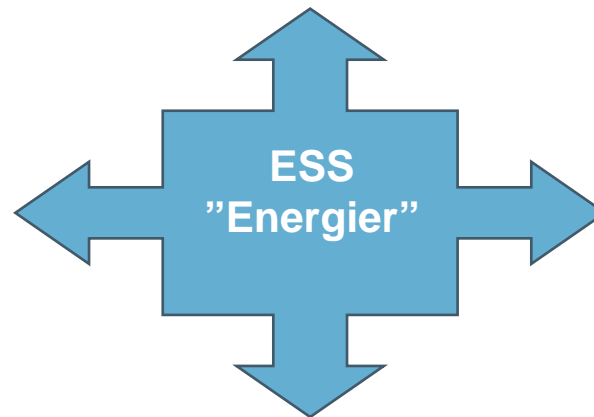


The ESS – An 'energy project'

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Technologic Energy – neutron source with multiple opportunities through an interdisciplinary approach...

Social Energy – the process, the relations and the encounter in the room



Political Energy – Embrodier on the leader shirt, develop the story about the ESS – new and exciting gossip...

Intellectual Energy – new map, new navigation points for future creation of value...



Mission

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- Create a common **visionary strategy** for how the ESS facility can contribute to regional development, with outlooks for the years 2020 and 2040.
- Create **strategic readiness** for societal and industry issues of interest in advance to the ESS establishment.
- Create a **new creative process** together with all stakeholders for regional engagement managing the opportunities created by the ESS

Method

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Two parallel tracks of investigation:

- *Quantitative*: producing concrete numbers of estimated growth for a number of lines of business (e.g. real estate, infrastructure, R&D, public service, tourism etc.).
- *Qualitative*: Generating a strategic agenda for the process forward by analysis of social mega trends, evaluation of future possibilities and restraints (SWOT), and estimation of how strategic resources will develop. In order to obtain this we have used interviews, seminars, surveys and visits to other similar facilities around the world.

Application – the ESS and MAX IV

- Chemical processes – provisions, paint, purification
- New packages and wrapping materials
- Engineering – safer and better cars and aeroplanes
- Bio Tech – ageing, cancer, structure of the skeleton, cellulose
- More effective medicins/drugs
- Energy – less freeen house gas emissions in the future hydrogen economy
- New materials
- Archaeology
- Database management och simulation

Glasses

Optic materials |

Artificial lenses

Photonic polymers

Cosmetics

TiO₂ Nano particles

LED display

Photonic materials |

Digital camera

CCD chip

Cell phone

SWA structures

Artificial hip

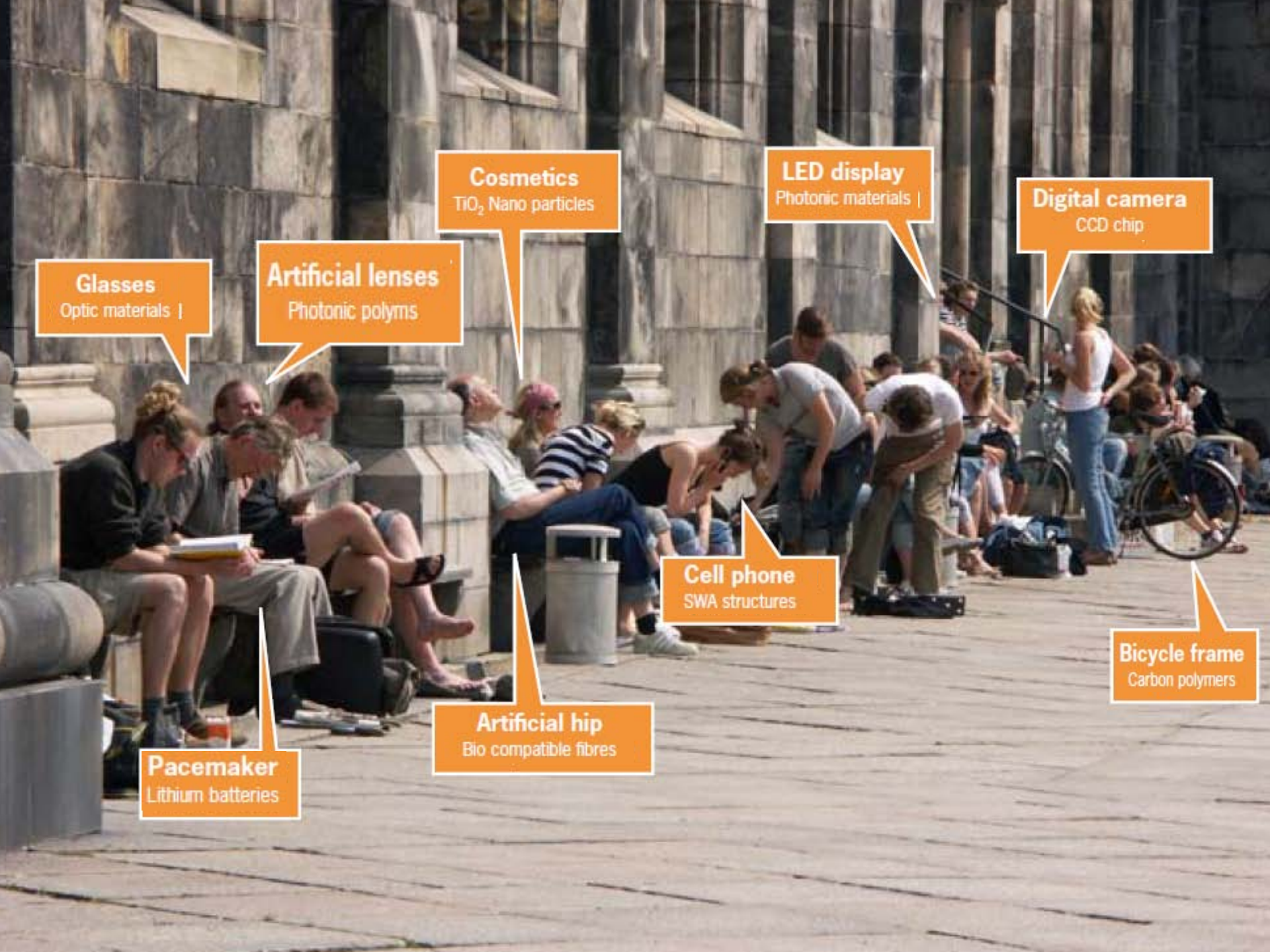
Bio compatible fibres

Pacemaker

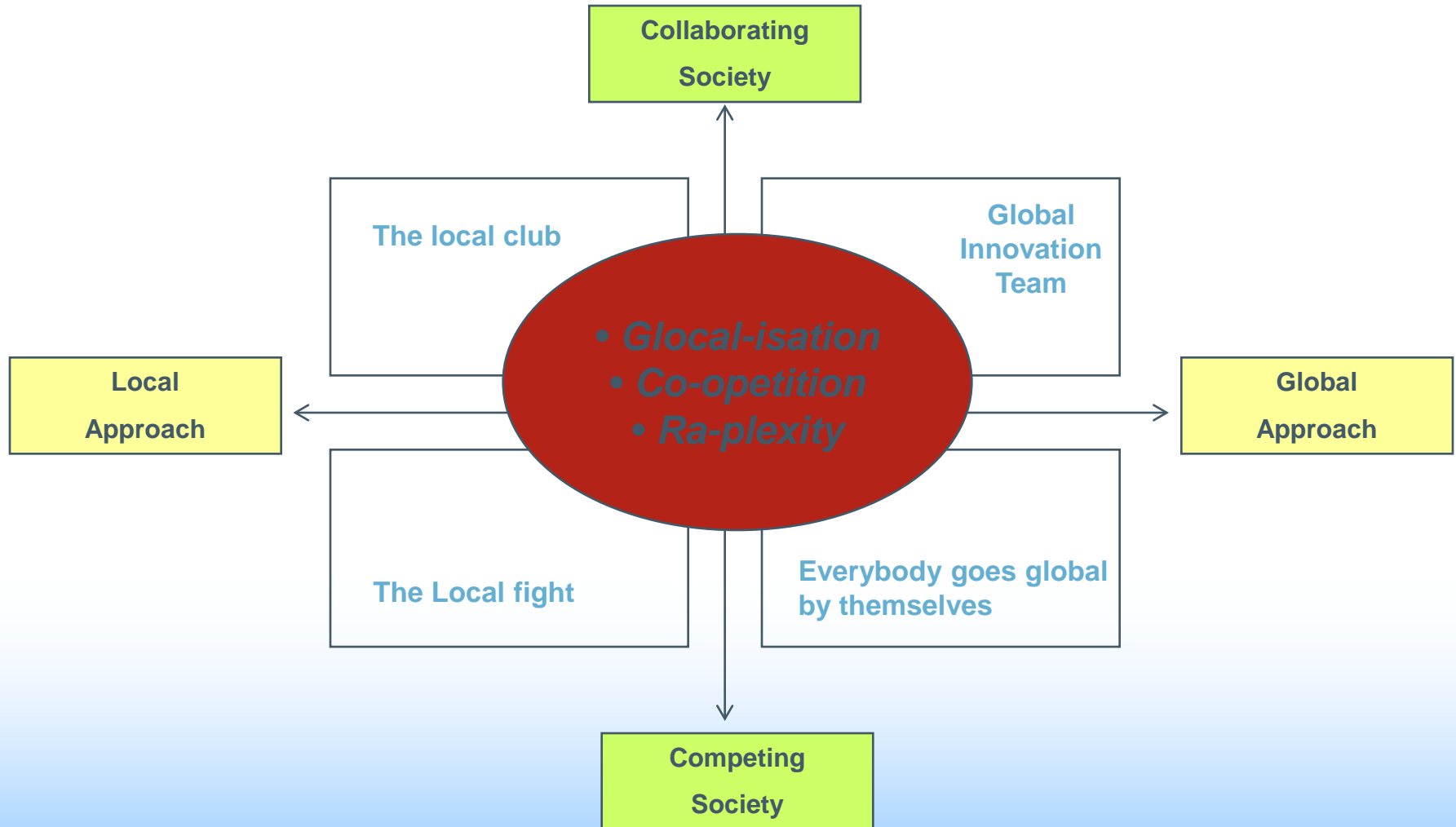
Lithium batteries

Bicycle frame

Carbon polymers



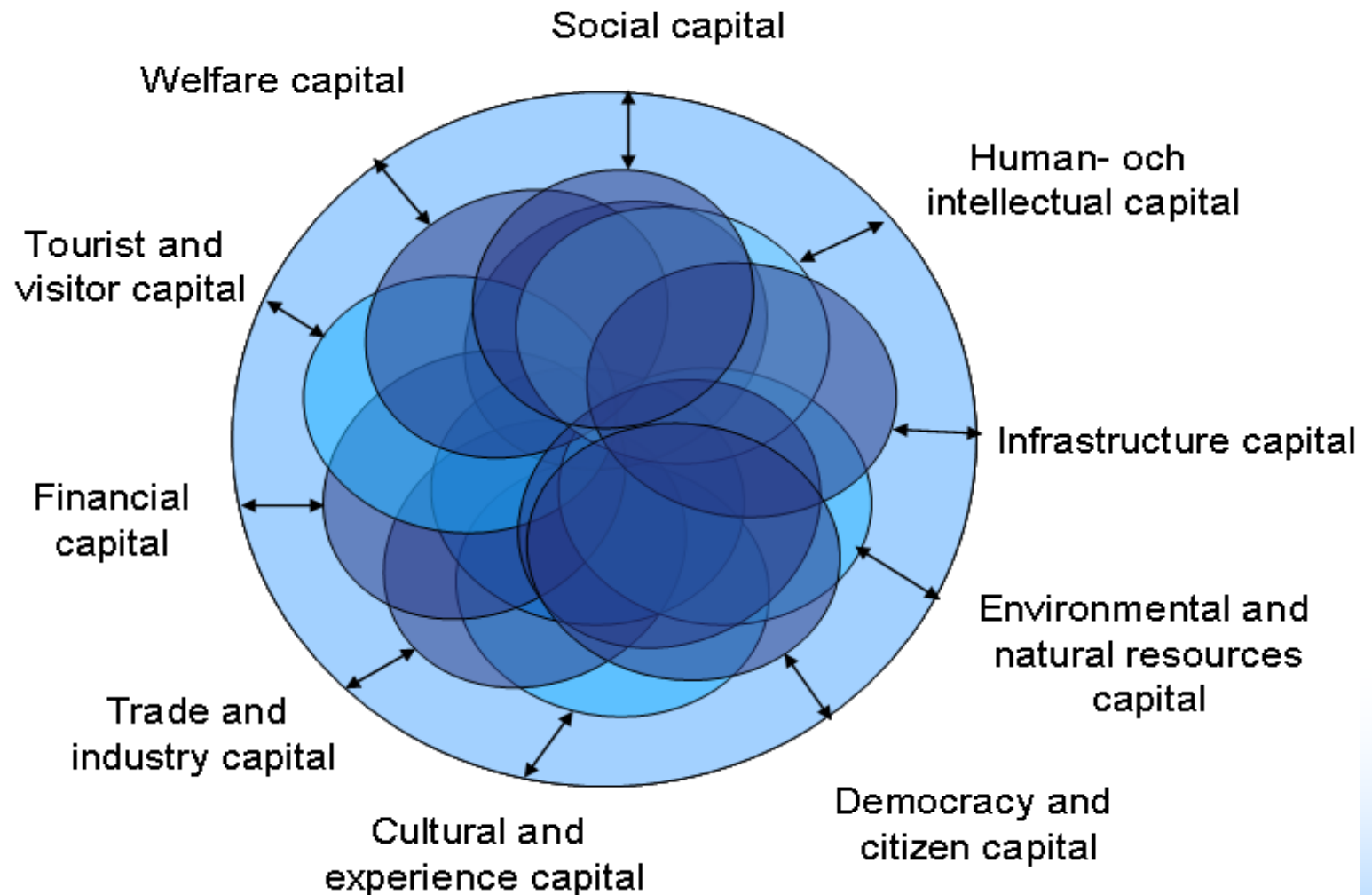
Some future scenarios



The New Capitalism...

medicon valley alliance

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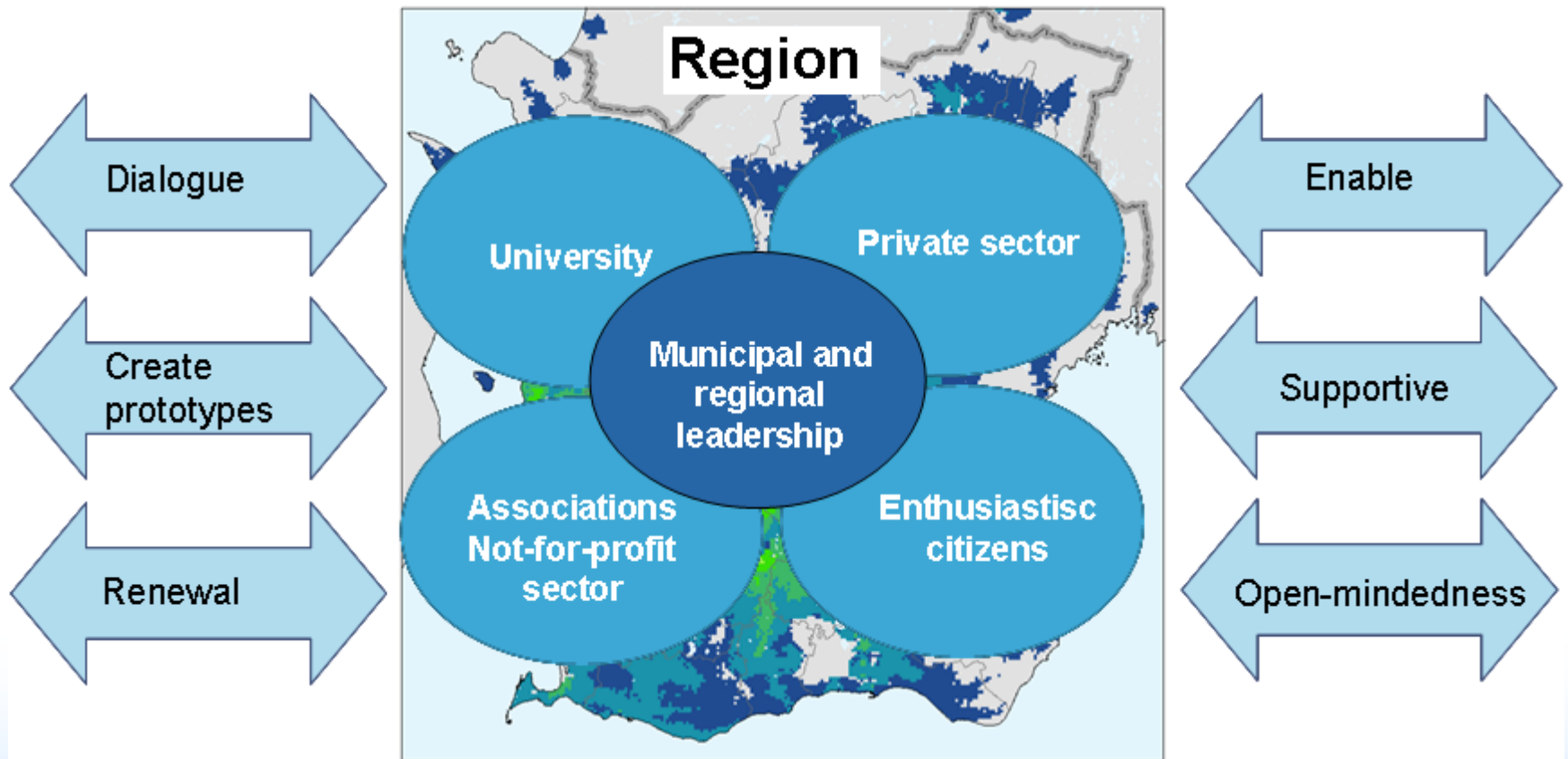


Intellectual Capital for Communities in the Knowledge Economy

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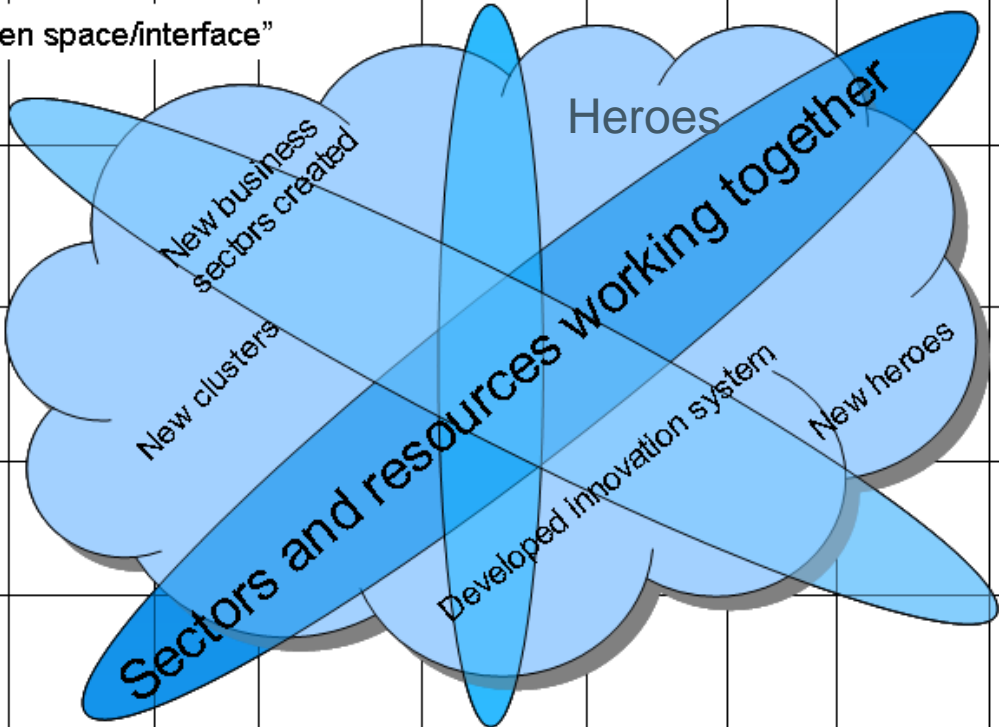
Penta Helix Collaboration 2.0

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The New Value Matrix

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Leadership	Financial capital	Welfare capital	Tourist and visitor capital	Trade and industry capital	Culture and experience capital	Democracy and citizen capital	Social capital	Infrastructure capital	Human- and intellectual capital	Environmental and natural resources capital
Public players (municipalities and regions)										
Private sector										
The university										
Associations										
Enthusiastic citizens										

"In between space/interface"

Heroes

New business sectors created

New clusters

Sectors and resources working together

Developed innovation system

New heroes

Key words for creating a world leading hub based upon 'society for science' and 'science for society'

- Frequency

- Density

- Friction

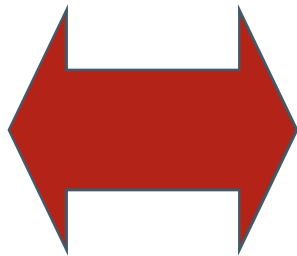
- Energy

- Vision

- Passion

- Connectivity

- Attractiveness



- The new capitalism

- Penta helix collaboration

- New industries in the making

- Need for new regional knowledge Heroes in all industries

- Focus on us not me/we

- Use the innovation dynamics in the rooms and different meeting places

The ESS as a lever

medicon valley alliance

