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Estonian Experience in Knowledge and Technology Transfer



www.bia.ee
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My Background



Implementation of several technology and knowledge transfer project including Estonian IRC and Enterprise Europe Network

Managing of Estonian IT cluster initiative in Mobile and Location Based Service



Johannes Pääsuke,
Estonian National Museum



Country where people pay taxes with smile thanks to ICT

- Majority of people paying taxes over internet - completing the tax declaration takes 5 minutes
- Setting up a company over internet takes 10 minutes
- Free Wifi Internet access in public places as “human right”



Leading country on e-Governance and e-Services

- Government internal working procedures and Meetings without papers
- First country to allow National Parliamentary elections over Internet in 2007, European Parliament elections in 2009 and m-Elections in 2011
- Currently discussed replacing all textbooks in schools with iPads

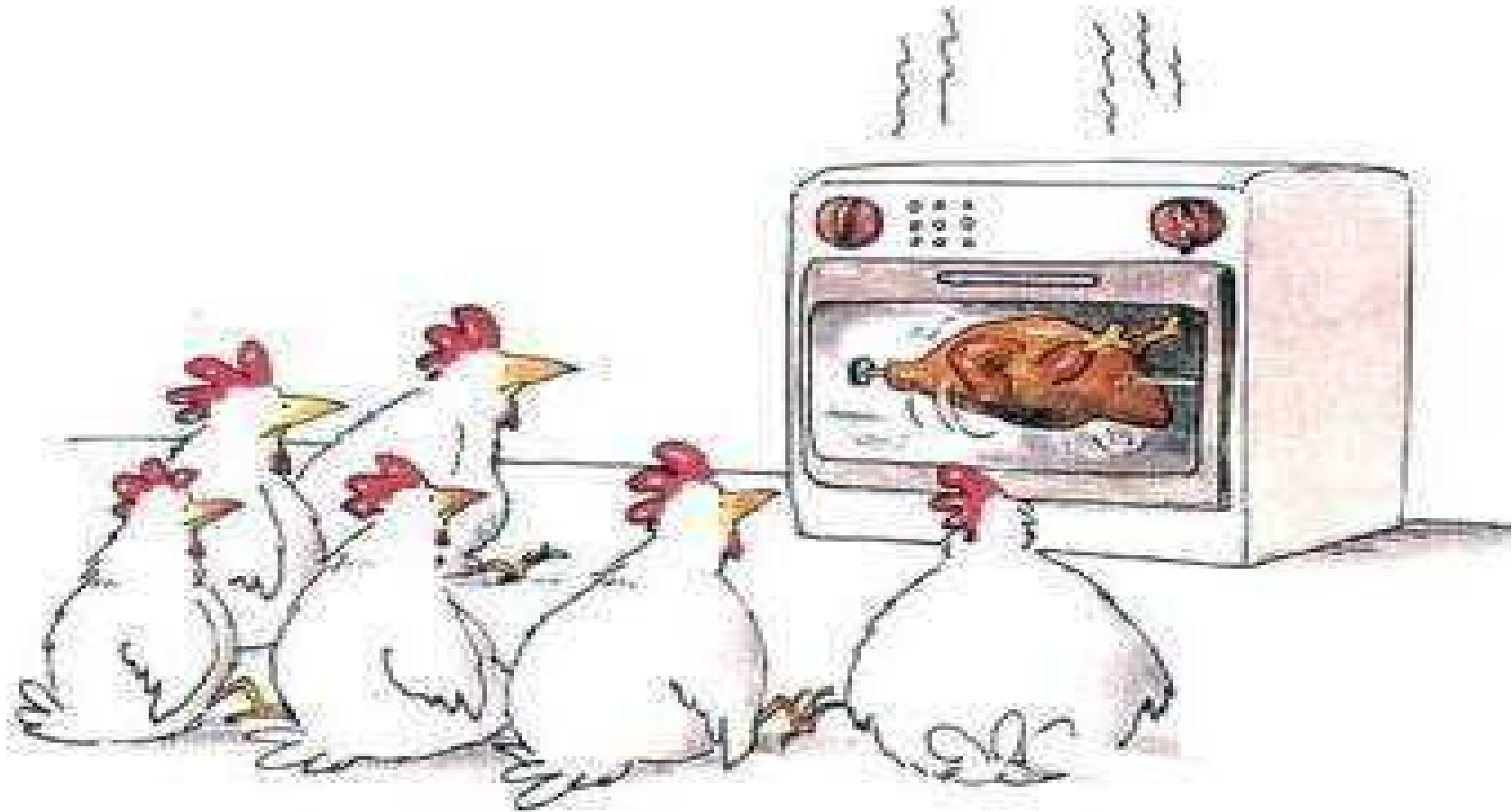


Paradox of Estonian Technology Transfer

- In spite of some IT solutions, which are world leading Estonian IT companies have still failed to transfer them to other markets
- Success in technology transfer does not lie in technical excellence and solutions but more often in cooperation networks and partnerships



... so something needs to be done if want to take more photos with smiling people



REALITY-TV

Main Challenges for Technology Transfer

New challenges for businesses

- Increasing complexity of the innovation process
- Increasing speed of innovation
- Increasing work in interdisciplinary fields
- New understanding of competition and collaboration required

New challenges for research

- Need to assess the social and economic implications of new communication and networking paradigms
- Need to validate new technologies
- Need for large scale test beds

New challenges for policy

- Information and communication technologies play an increasingly central role in all aspects of European citizens' lives
- Need to ensure accessibility for all
- Need to ensure security and privacy

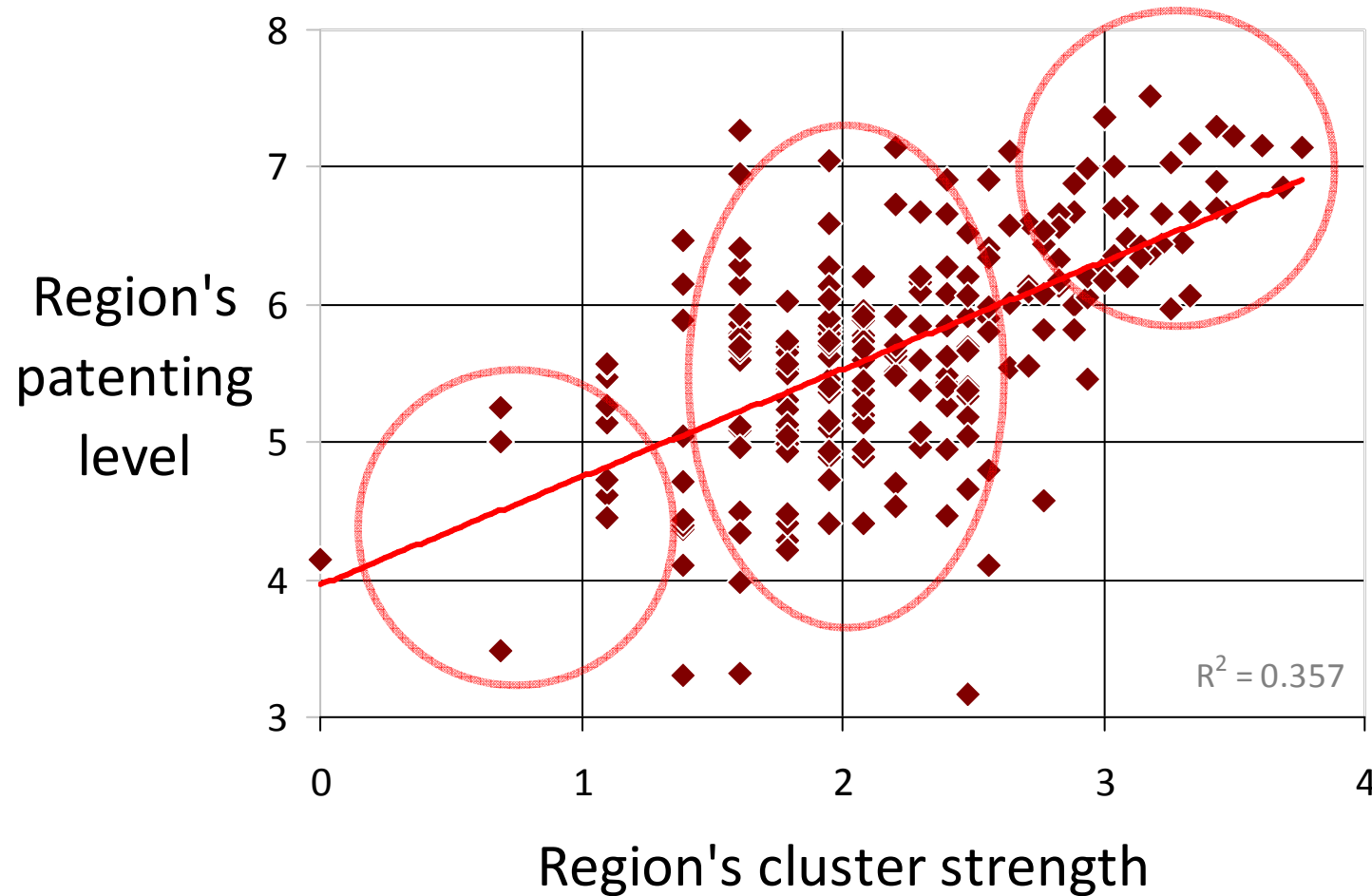


What can be done to meet those challenges and the role of clusters

Clusters and knowledge triangle dynamics as one possible answer to the challenges of Technology Transfer

- Clusters are critical drivers of ‘open innovation’
- Innovation is heavily concentrated geographically, much more so than high prosperity or productivity
- Clusters provide an environment conducive to innovation
- Regions with strong cluster portfolios are hotbeds of innovation
- Globalization has even increased the benefits of strong clusters and raised the economic and societal costs of failure to develop a clear specialisation profile

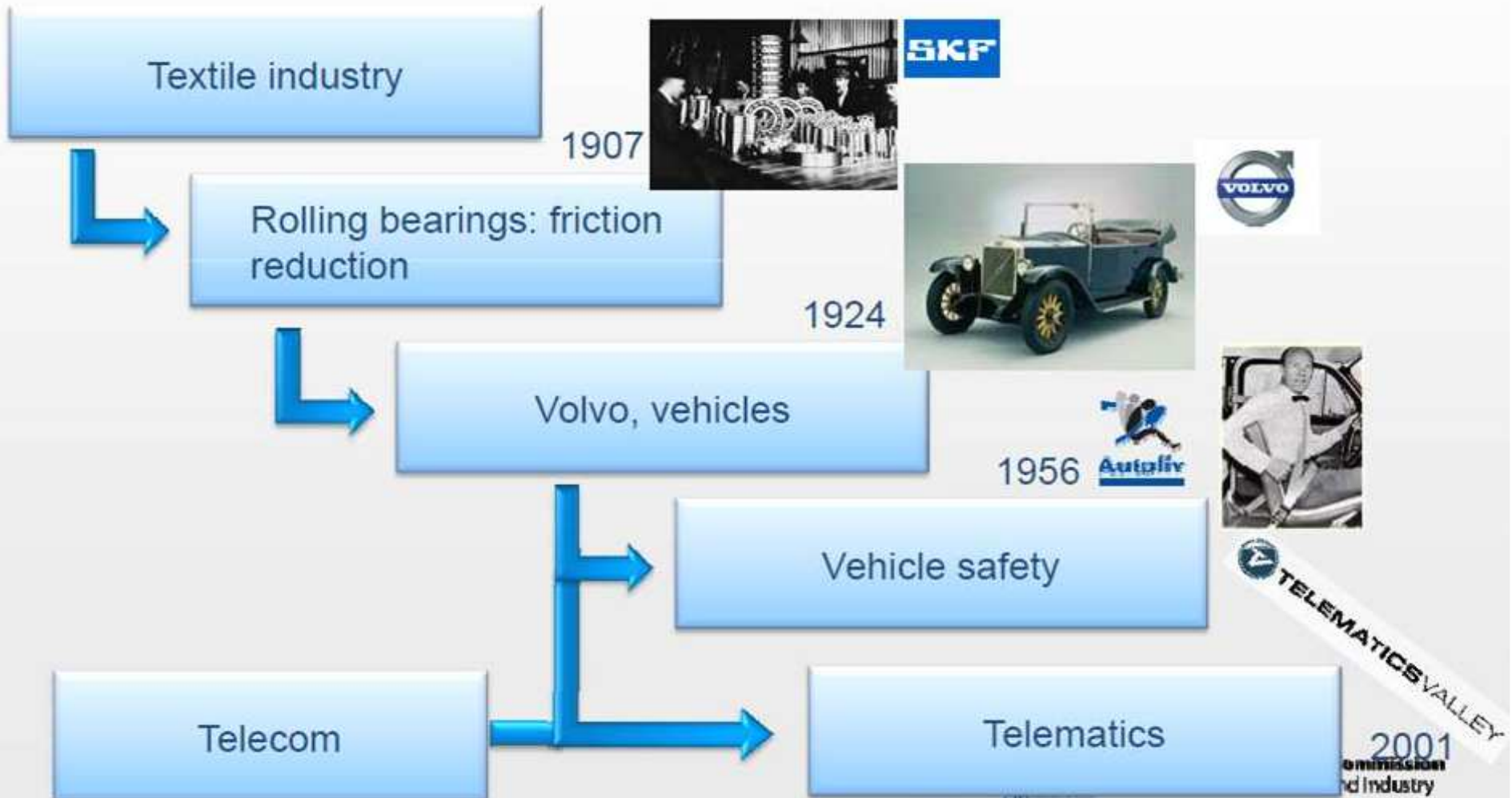
Clusters = Innovation = Technology Transfer?



Each region's number of cluster stars (log) vs its number of patents (log), adjusting for country-level differences other than cluster strength.
Source: The European Cluster Observatory www.clusterobservatory.eu

Source: Sölvell, Ketels

Cluster evolution in the Gothenburg region



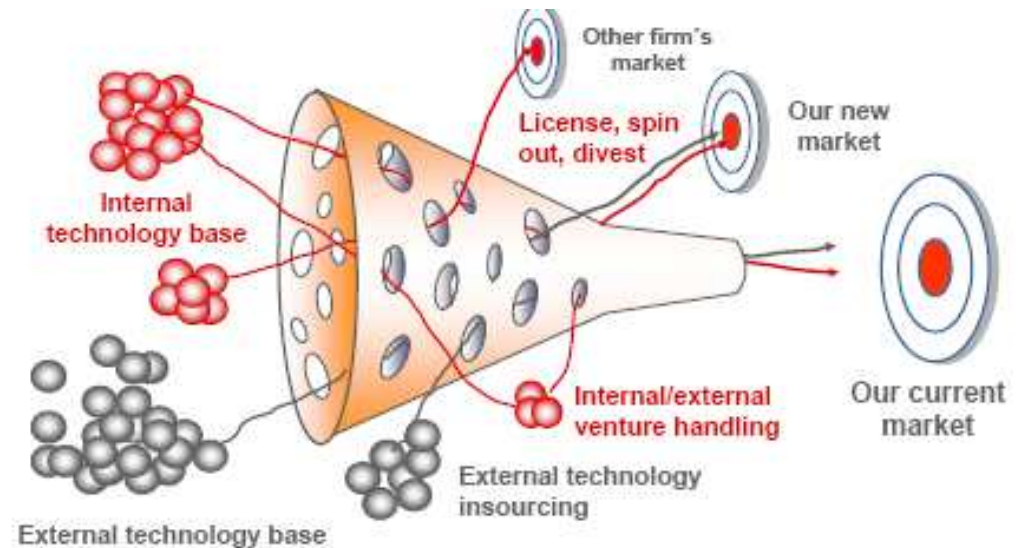
A new paradigm: Open Innovation

Definition

- The use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively (Chesbrough et al., 2003)

Concept

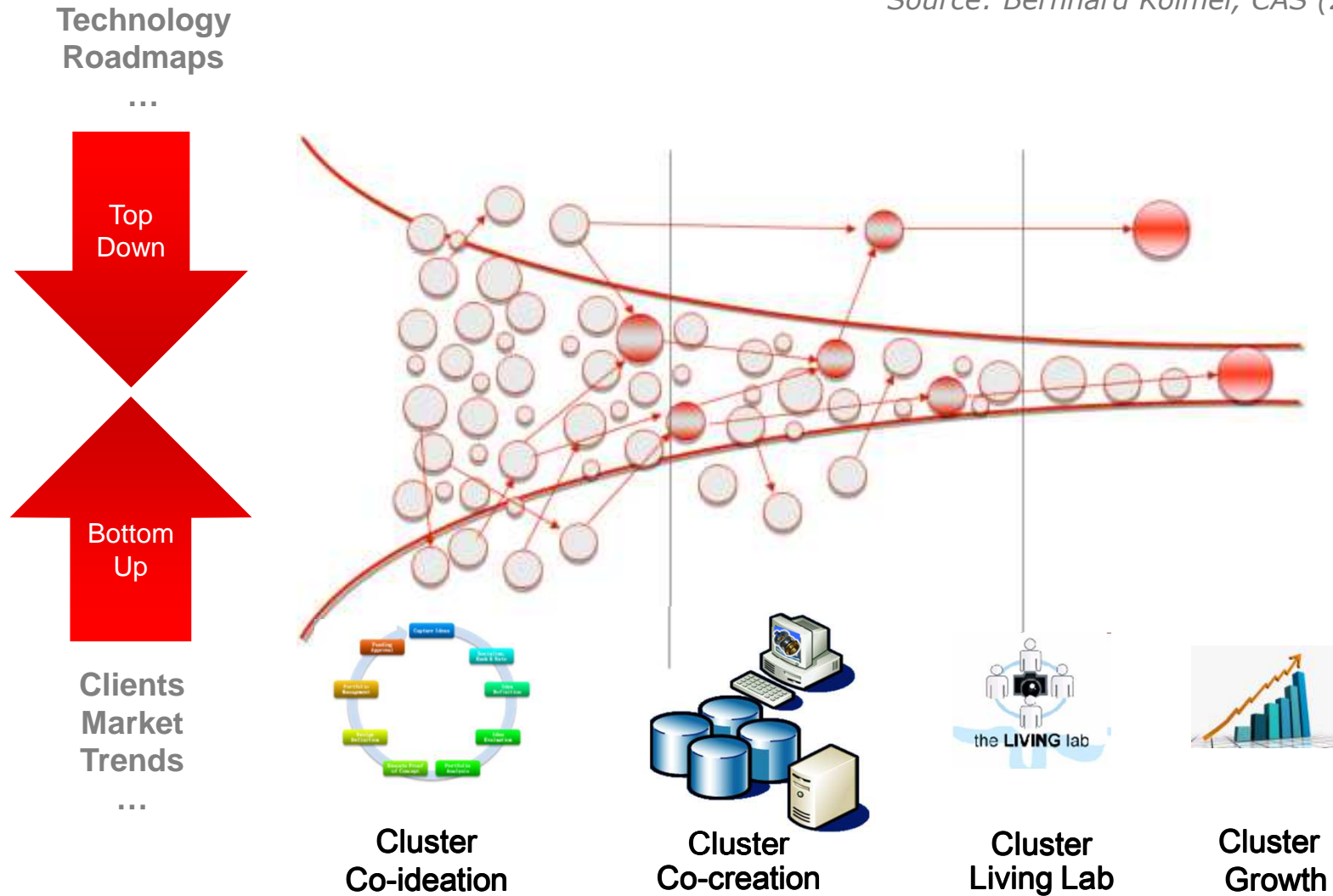
- ▶ Spanning firm boundary
- ▶ Collaboration inside & outside the organization
- ▶ Managing the external process of innovation



Source: Henry Chesbrough (2003)

Open innovation and Clusters

Source: Bernhard Kölmel, CAS (2008)



Living Labs

“A Living Lab is both a methodology for User Driven Innovation and the organizations that primarily use it. Living Lab is about experimentation and co-creation with real users in real life environments, where users together with researchers, firms and public institutions look together for new solutions, new products, new services or new business models.” (www.openlivinglabs.eu)

Methodology

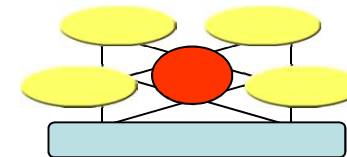


Technology and Infrastructure



Pilot USERS Community

Living Lab Expertise

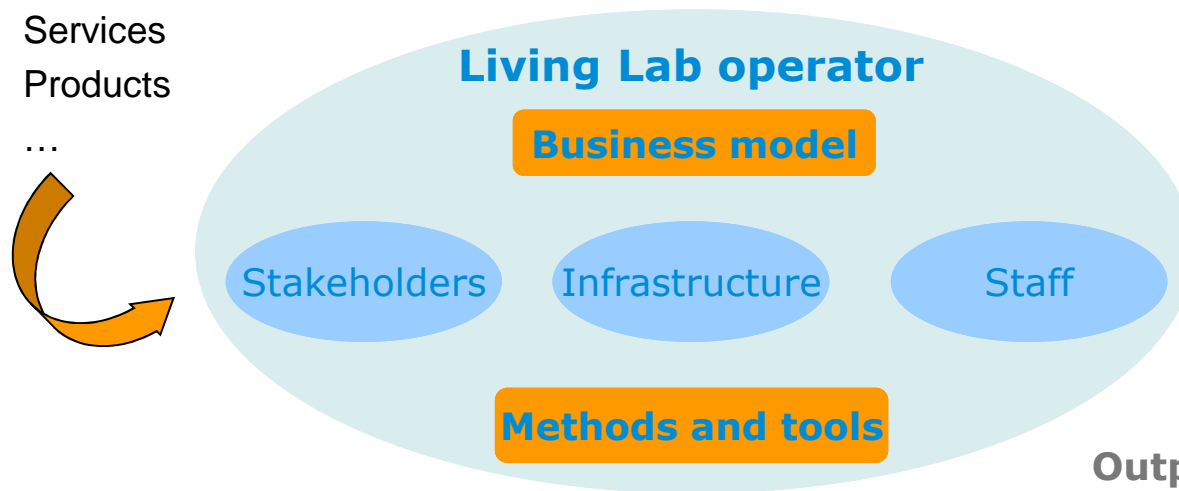


Organisation

Living Labs and Technology Transfer

Input

- Problems
- Ideas
- Technologies
- Services
- Products
- ...



Output

- New product ideas
- New service ideas
- New business ideas
- Product improvements
- Market acceptance benchmarks
- ...

Successful technology transfer does not depend on technology as such



... but on what it can solve!





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THANK YOU!

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