The geography of knowledge dynamics and customized innovation policies
Customised innovation policy

- No ‘one size fit for all’ formula for promoting innovativeness - not even among the Nordic countries (Asheim et al 2011)

- Innovation policies and practices do not vary only between countries but also within them (Tödling & Trippl 2005)

- Unique advantages have to be actively constructed and innovation policies customised
Localized / regionalized innovation policy

Localized and/or regionalized innovation policies may have some advantages in solving specific issues.

- National innovation policies have a regional impact - intended or not

- Regional differences...
  - in the quantity and quality of innovation activity
  - in the performance of the entire regional innovation system
  - in the institutions/practices framing the action and choices made in the region

Differentiated strategies and instruments are needed both to serve the specific regions and to achieve national-level goals more effectively.
R&D personnel (FTE) in Finland and the shares of the leading city-regions

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R&D Expenditure in Finland and the shares of the leading city-regions

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Localized / regionalized innovation policy in Finland

- Regions are usually poorly, if at all, defined in the Finnish national innovation policies.
- Regional innovation policy is, more or less, seen as an extension of national policies (Suorsa 2007)
- Due to strong local government national and local policies have coevolved for some time (Sotarauta & Kautonen 2007)
Differing regions / differing local systems
Examples from the era of CoE

• Peripheral regions (organizational thinness)
  o South Ostrobothnia

• Old industrial areas (potential lock-in)
  o Tampere region

• Metropolitan regions (fragmentation)
  o Helsinki MA

The basics have not changed – the policy has
Centre of Expertise Programme
Competence Clusters and the Centres of Expertise
2007 – 2013 (last phase)

- Living business
  Joensuu, Hämeenlinna, Lahti, Helsinki

- Digital Content
  Hämeenlinna, Helsinki, Tampere, Kouvola

- Food Development
  Kuopio, Helsinki, Seinäjoki, Turku

- Forest Industry Future
  Joensuu, Jyväskylä, Kajaani, Kokkola, Mikkeli, Lappeenranta, Turku

- HealthBio
  Kuopio, Oulu, Helsinki, Tampere, Turku

- Health and Well-being
  Kuopio, Oulu, Helsinki, Tampere

- Nanotechnology
  Joensuu, Jyväskylä, Kokkola, Mikkeli, Oulu, Helsinki, Tampere

- Ubiquitous Computing
  Jyväskylä, Oulu, Pori, Helsinki, Tampere

- Energy Technology
  Joensuu, Jyväskylä, Vaasa, Pori ja Tampere

- Cleantech
  Kuopio, Lahti, Oulu, Helsinki

- Tourism and Experience Management
  Helsinki, Rovaniemi, Savonlinna, Turku

- Health and Well-being
  Kuopio, Oulu, Helsinki, Tampere

- Nanotechnology
  Joensuu, Jyväskylä, Kokkola, Mikkeli, Oulu, Helsinki, Tampere

- Ubiquitous Computing
  Jyväskylä, Oulu, Pori, Helsinki, Tampere

- Energy Technology
  Joensuu, Jyväskylä, Vaasa, Pori ja Tampere

- Cleantech
  Kuopio, Lahti, Oulu, Helsinki

- Intelligent Machines
  Hyvinkää, Hämeenlinna, Lappeenranta, Seinäjoki, Tampere

- Maritime
  Lappeenranta, Pori, Turku, Vaasa, Raase
Mobile heavy machinery in Tampere

- Adding ‘intelligence’ to traditional machines
- Customized production for individual customers
  - Products are a mixture of solutions and industrial services
- New knowledge from on-the-site, face-to-face and hands on interactive processes with customers
- Solid and long-term innovation work
- The majority of the firms have a separate R&D unit

Solid engineering is the name of the innovation game

The main source of knowledge is customers
Also universities
The core of the local innovation policy
Customized and collaborative

Mobile heavy machinery in Tampere

Proactive collaborative strategy
- Maintaining and increasing R&D intensity (generic technology focus)
- Main focus on ‘applied basic research’
- Conscious efforts to tap into international knowledge hubs
- University of technology highly involved
Solid engineering is the name of the innovation game

Agrotechnology in South Ostrobothnia

• Adding ‘intelligence’ to traditional machines

• Customized production for individual customers

• New knowledge from on-the-site, face-to-face and hands on interactive processes with customers

• Solid and long-term innovation work

• The minority of the firms have a separate R&D unit

The main source of knowledge is customers
Customized proactive and collaborative strategy

AgroTech – catching up learning for innovation

Proactive collaborative strategy

- Increasing innovation capacity and culture – learning to innovate
- Tapping into national knowledge hubs
- Simultaneously very customized to serve the cluster and generic to serve regional development more broadly
- Usability and customer-orientation important
- Distributed activity, experimentation (Agro Living Lab)
DigiBusiness in HMA

- Digibusinesses are evolving rapidly and accumulating in many ways

- Constant search of new business ideas as well as new customer groups and novel forms of digital media

- Customized production for individual customers

- The minority of the digibusiness firms have a separate R&D unit

- A wide set of professional and user communities involved
Restless dynamism is the name of the innovation game

DigiBusiness in HMA

• Identified business opportunities are tested rapidly and incorporated into the existing service portfolio of a firm

• Branding the service or product and hosting visible references from various
  ○ Design, brands, trademarks, social media references etc.

• Extensive use of the Internet and other digital channels to stay in touch with a rapidly developing field
Customized gardening strategy

DigiBusiness in Helsinki - making sense of rapidly evolving field

• “360 degree strategy”
• Simultaneously customized and generic
• Creation of awareness of rapidly emerging industry, reduction of fragmentation
• Real-life experimentation (living labs)
• Universities loosely connected
• Reactive gardening policy

‘360 degree strategy’
• Loose focus
• Don’t know what to focus on, experiment with everything interesting to find a new path
• Loosely defined policies, space for experimentation and rapid reaction – collective learning
• Focus on growth oriented SMEs and boosting interaction between SMEs and large firms
"Just as nature conducts many evolutionary experiments in order to have a successful species, so companies should fund many innovation projects and see which ones win out”

(Välikangas & Hamel 2003)