The innovation platform in the region of Turku: Why and how to design systemic innovation?

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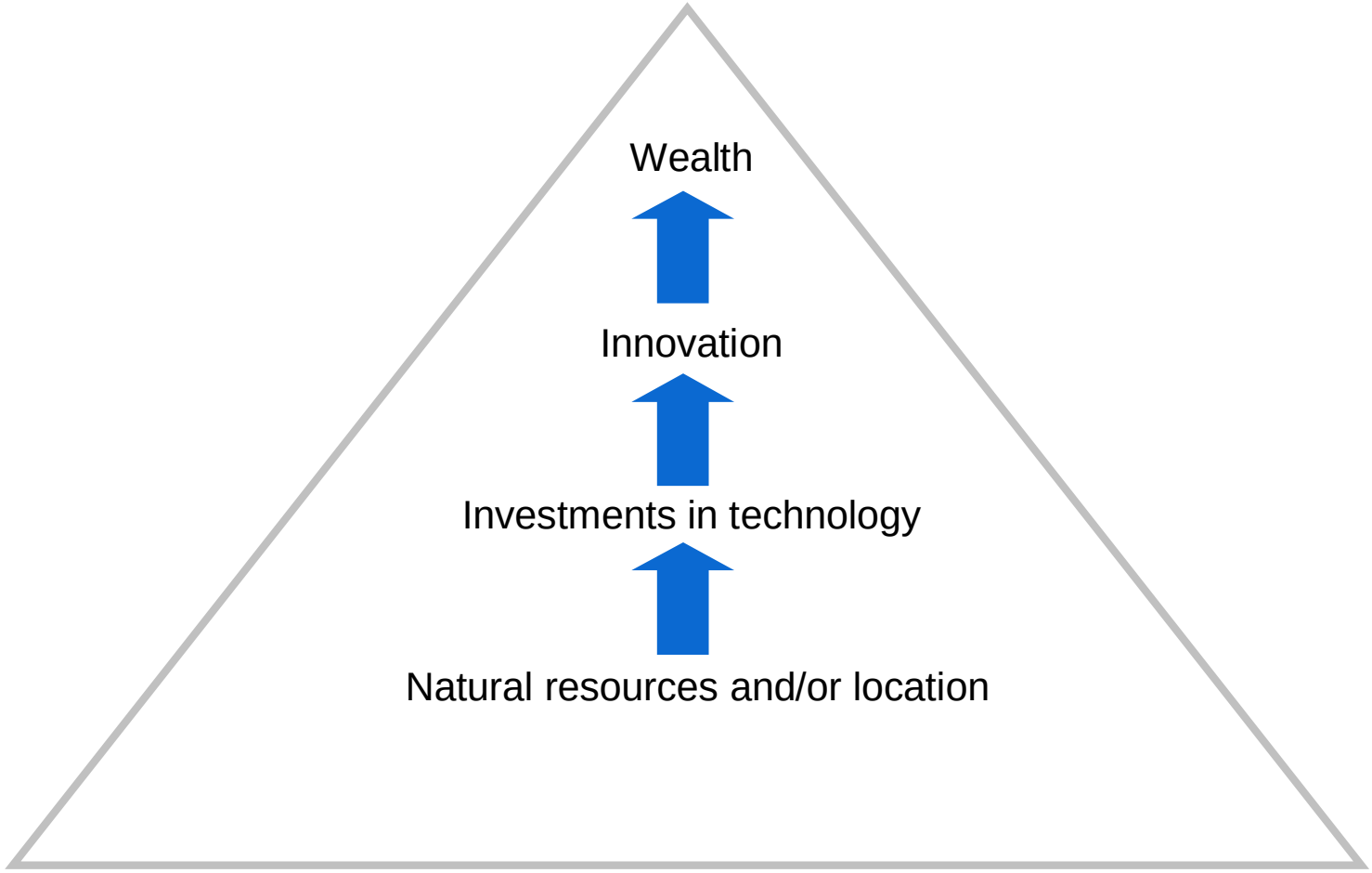
Introduction

- Scholars in urban and economic sociology, innovation, and industrial organization agree that well-being in society and wealth creation in the economy hinge on local capacity for innovations that stands up to its advantage in international and inter-regional comparison. Within this context, many argue:

  – New technologies allow for the simultaneous concentration and decentralisation of settlements and activities, connecting places through networks. The wealth of nations, and of cities, depends on innovative capacity (Freeman 2002, Porter 2001; Castells 2005)

  – Cities and spatial forms [in particular] are a fundamental dimension of society, and thus change and evolve with society (Castells 2005, Scott)

”Stages” of regional economic development



How to create and sustain innovate capacity?

- However, where Castells and other scholars have as of yet left us partly in the dark is on the precise mechanisms of how, then, to create and sustain innovative capacity in a city, when this innovative capacity matters so much

- This idea paper is to serve as a basis for further discussion

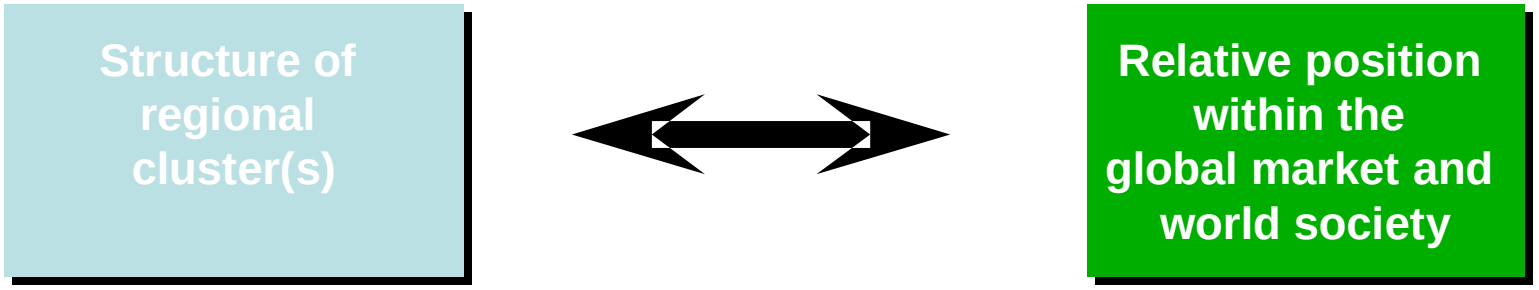
- The paper builds on ideas originating or carried in the work of Castells, framing these in terms of also economic sociology, to analyze innovation in Turku

- The paper refers to data that exists on three sectors of unequal size in the Turku region -- information and communication, industrial design, and biotechnology -- to work towards specifying why and how Turku renewed itself from the early 1990s to present day

Regional advantage

- The essential unit of analysis is the region, the sub-national geographic cluster (Porter 2001)

- Competitive advantage results from distinct causes (regional industry structure and relative geo-economic position, Porter 2001) and others less distinct (innovation milieu, technological infrastructure, education, Castells 2000)



- Rules of the game

- Source of competitive advantage

Sound regional policy must encompass regional structure, position and other factors such as national and global economic development, institutions, and cultures

Policies for developing innovative capacity -- ”Models of rationality”

- Distinct models for how politics, education and the economy should be organized are produced in “the West” (U.S. and Britain, in particular), then copied and diffused around the world.

- According to these models of cultural and societal production, a modern nation state should be concerned primarily with economic development.

- There are institutionalized scripts for accounting, for describing what a successful firm should be like, and so on.

- Of crucial importance in all of these models is the idea or myth of the rational actor – be it in the form of the nation-state, the modern organization, or the individual.

- “Actors are entities with rights and interests and with the assigned right and capacity to represent these interests. Actors, thus, are assigned agency – derived main from the moral universe: it is in this sense that they are small gods” (Meyer 2000:239; see also Swedberg 2000:71).

Data and Methodology

- Earlier work on Turku, Tampere and Helsinki innovation systems by Hukkinen, Höyssä and Bruun 2003, by Bruun 2002, by Sotarauta, by Kostiainen, by Kostiainen, by Kasvio, by Yliroiko, by Castells, by Ainamo and his colleagues, and by Kulkki

- Access to
  - University of Turku, Turku School of Economics, other educational institutions
  - Turku, Tampere, Helsinki, Oulu, and Lappeenranta

  - TYKS, Turku University central hospital
  - GE Healthcare
  - Nokia Multimedia
  - Teliasonera, If, etc.
  - Statistics Finland

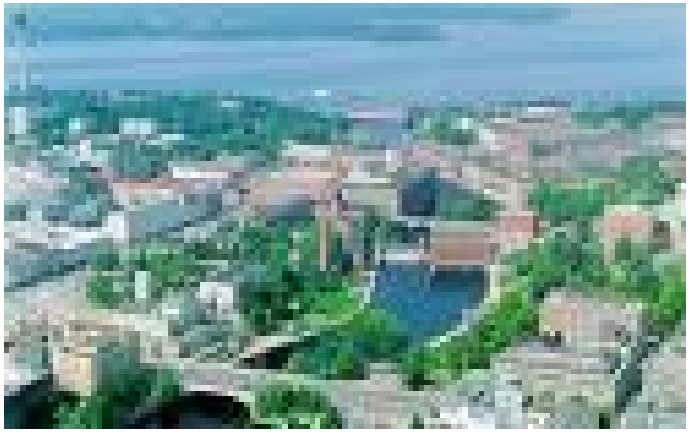
- Growth Nodes in Knowledge-based Europe (G-Nike) project with scholars such as Manuel Castells, Max Boisot, Robin Mansell, Antti Kasvio and Antti Ainamo, and the European commission 2002-3, with research for example on ”eTampere”

- Ethnographic data collection, participant observation from October 2006 in Turku

- A narrative for analysis

Tampere as ”growth node”

- From transportation to communication…



- From 2001 to 2005 a series of projects

- Inspired by the Lisbon (2001) of the European Commission
  - To catch up with the United States in terms of the Internet
  - 3rd generation mobile telephony
  - ”ICT” – information and [communications] technology

- Tampere and ”Nokia” (see Ainamo, Kasvio and Kukko 2003 in *Nordiske Organisasjonstudier*)
  - Development of signaling technologies
  - Graphical interface for the the Nokia ”Communicator 9000”
  - Hardware – software integration

- Manuel Castells and Pekka Himanen: *Information Society and the Welfare State*.

”Mobilizing for the information society”

- A bus with Internet capabilities…
- A sauna on the internet…
- Media attention…

- Tampere has been ”most popular city in Finland” <= Florida´s idea of attracting talent

Research questions

- What were the main events in the history of innovative capacity in Turku from the early 1990s to the middle of the first decade of the 21st century?
- Who were the most significant actors in this process?
- How have these actors collaborated and how has the pattern of collaboration changed over time?
- How do the actors themselves experience the quality and significance of local collaboration?
- What have been the challenges that Turku faces in attempting to sustain and strengthen innovative capacity?

Some basics about Turku

- **Location**: Turku is situated in southwestern part of Finland, on the Baltic shore

- **Founding and development of the city**: Turku is the oldest Finnish city and has played a significant political, economic and cultural role in the country's early history. By the 19th century, the Helsinki area (including the cities of Espoo and Vantaa) bypassed Turku in national significance. More recently, many other regional centres, such as Tampere, Oulu, and Kuopio have successfully competed with Turku. The economy of Turku and its region is diversified, with public services and industry being the dominant sectors. Other important sectors are transport and construction as well as research and development in information and communication technology

- **Human resources**. With approximately 172,000 inhabitants, Turku is Finland's fifth largest city (after Helsinki, Espoo, Tampere, and Vantaa). It has three universities.

- **Administration**. Turku belongs to the greater Turku region (officially *Turku sub-region*), which also includes the towns of Kaarina, Raisio, Lieto and Naantali, and totals a population of about 230,000.

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The ”5 + 1” clusters of Turku

- From a cluster-perspective, the Turku region has five clusters:
  1. the metal group, structured around shipbuilding
  2. the real estate group, which includes construction, property maintenance and real estate business
  3. the logistics group, focusing on land and sea transport, cargo handling and storage
  4. the graphic industry with publishing and printing as main activities
  5. the biotechnology and food group, structured around the research-intensive pharmaceutical and diagnostics industry, as well as more conventional food processing (Stenholm 2000)

- What is striking is that the core of the Turku region has thus been in a weak position in two of Finland’s most important clusters, the forest cluster and the telecommunications cluster

- However, many people in Turku work in Salo. in addition to the four clusters that formally exist, the extended Turku region includes:
  6. information and communication technology in Salo

Turku transportation / ICT – innovative milieu?

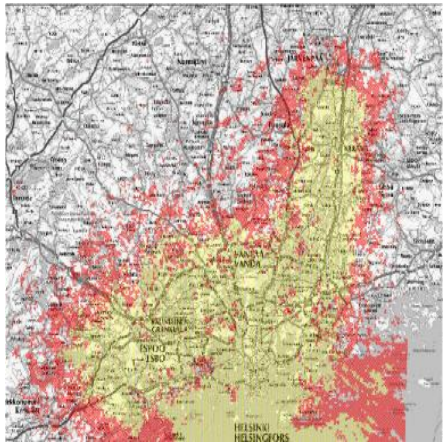
INTER-MUNICIPAL MIGRATION

Migration to Turku 10,055
Migration from Turku 10,451
Net migration .....-396
Net immigration 293
Total change in population 36
Source: *Turku annual report*

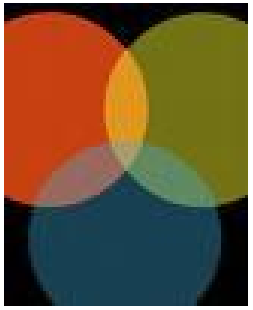
The three main designers of the DVB-H mobile TV technology are from Turku

The roll-out began from Helsinki to Turku, Tampere and Oulu…

The credit for DVB-H went somewhere else than Turku…



Industrial design



- Ed-design is the the biggest industrial design consultancy in all of the Nordic countries
- However, Turku is not part of the Design 2005! policy of the government of Finland (Power 2004)
- Ed-design failed to jump on the software bandwagon and/or to englargen its partner base

Biotechnology

- High hopes

- Lots of real-estate infrastructure

- Less content production that would have been commercialized

Action logics, universities, networks enterprises

- In development of the university and of the city around it, “the key words are profiling and structural development“ (*Agora* 2007:3).

- “In thinking about our university and research system we must take into account at least the following action logics:
  - “First, at the global level the United States and Asia pull in more researchers and students than do the universities of Europe”
  - “Second, … universities have never been so high on the agenda of the [European] Union”
  - “The third level [of analysis] is the national one” (*Agora* 2007:3).

- “There is no reason that Finland pays for a Finn to work abroad” (quoted in Jokela & Santti 2007: 31, in discussing science policy in Turku).

- ”We were surprised that GE Healthcare did not use our [PET center] services more” (TYKS *interview* 2007)

- ”That’s how public-private partnerships work. We know what we are doing” (GE *interview* 2007)

Discussion

- Questions…?
- Comments…
- …