


# **Rural Matters! Forging Healthy Canadian Communities**

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***Rural innovation,  
creativity and growth  
matters!***

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# Outline

- ◆ Innovation
  - ◆ Innovation Systems, what are they?
  - ◆ Innovation Systems and City Regions
  - ◆ The Role of Rural Areas in “City Regions thinking”
  - ◆ Role and Performance of Rural Areas
  - ◆ Specific characteristics of rural innovation
  - ◆ Case studies
  - ◆ Conclusion
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# Innovation

- ◆ Innovation: *“both radical and incremental changes in thinking, in things, in processes or in services” (McKeown, 2008).*

# Innovation Systems

3 criteria must be met if an *innovation system* can be said to exist: -

- ◆ Coherence
- ◆ Unified function
- ◆ Territorially bounded

“Innovation systems” approaches stress organisational capabilities, networks, & the spatial or territorial bounded-ness of innovation systems.

Edquist (2004)

# The Scottish Innovation Systems Report (Roper *et al.*, 2006)

- ◆ An 'Edquist' type innovation system 'exists' in Scotland, BUT...
- ◆ **Is weak/ absent in predominately rural regions** of the Highlands & Islands and the South-West of Scotland
- ◆ Elsewhere dominated by public sector R&D and large corporate R&D, and a few city based Universities
- ◆ Particular gaps for small and micro enterprises...

# Knowledge-Distance Decay

- ◆ The Impact of University-led research & knowledge transfer functions in regional innovation systems decays rapidly with distance from the core cities in which they are normally based.
- ◆ Positive spillovers from university research can have positive impact on levels of innovation FOR **up to 75 miles**. (Anselin *et al.* 2000)

# Prevailing Innovation System Metrics

- ◆ Rely heavily on:
  - origin & location of R&D spending and activity,
  - activities of larger corporate enterprises having R&D activities
  - patent registrations
- ◆ Metrics *by definition* show that all innovative activity takes place in cities! Naturally, this is confirmed by most research!

# But there are exceptions!

- Professor Sami Petri Kurki & team in the Ruralia Institute, University of Helsinki
- work on Innovation in Canadian rural areas [Fuller & Robinson] and of the NRE Group under Prof Bill Reimer
- ‘innovation fiches’ by the European Leader Observatory established for LEADER II between 1996 and 2001 [see e.g. Bryden & Dawe, 1998].
- *to name a few.*

# Dominant Views in Innovation Systems and City Regions

- ◆ Innovation takes place in Cities
  - (Florida 2002, von Thunen-Krugman 1826-1992, Perroux, Jane Jacobs 1985 & the planning, regional development & economic geography profession in general)
- ◆ Economies of scale and scope plus migration decisions of the 'creative class' connect 'innovation systems' to 'city regions'
- ◆ In the EU, the ESDP and later ESPON also reflect 'growth pole' and 'city region' ideas.

# Scepticism about City Region sustainability

- ◆ No convincing evidence ... that inhabitants of global cities and surrounding regions fare better than residents of lesser places" (Fainstein 1999)
- ◆ Deregulation and marketization
  - 'stimulated growth of financial services & international-trade-related sectors that are leading edge of global city economies'
- ◆ Global city Metropoli particularly prone to extremes of inequality (Friedmann, 1986; Sassen, 1991)
- ◆ Dependence of global city regions on international financial flows makes them vulnerable to fluctuations in a volatile global financial system

# City Regions Thinking and the Role of Rural Areas

- ◆ 'Rural areas' do not exist to generate economic activity – indeed they are 'subsidised' by cities!
- ◆ 'Real' 'creative' people don't live there!
- ◆ Innovation, ideas growth and development come from Cities, which rural areas service mainly through 'green space' (ESDP, various)
- ◆ Rural citizens have no 'agency' – the driving forces of change are all based in cities.

# Evidence on rural 'performance'

- ◆ Some mainly 'rural' regions are doing pretty well economically, and in some cases better than their national capital city regions [OECD 1996, Terluin & Post 2001, Bryden & Hart 2004]
- ◆ Many rural regions exhibit higher rates of new enterprise formation than their nearest cities [Vaillant, 2006]

# Factors countering agglomeration

- ◆ Changing transportation costs for manufactured goods relative to the costs of moving people (Glaeser and Kohlhase, 2003).
- ◆ Growth in services sector & ICT facilitate 'remote' production of services + global marketing and financial activities
- ◆ Rising (monetary and non-monetary) costs of city property, waste disposal, congestion and environmental degradation & importance of rural-based decentralised eco-sanitation and water management
- ◆ Increasing need for renewable energy
- ◆ People's lifestyle choices
- ◆ Rural resistance against centralization

# Rural areas offer more than 'green space' !

## ◆ Three central issues

- the different nature of rural assets, and hence of 'rural innovation'
- the importance of public and quasi-public goods in these assets and associated 'innovation'
- economic and social cohesion – citizen rights to be treated equally or equivalently wherever they live.

# Rural Assets

- ◆ Water, food, timber and raw materials
- ◆ Land for use & absorption of nutrients and organic matter
- ◆ Renewable energy
- ◆ Cultural diversity
- ◆ Self-reliant, cooperative & highly motivated people, having important local knowledge, are culture-bearers, & often have high levels of formal education
- ◆ Biological diversity & landscape value – almost all of our designated areas.
- ◆ Places for tourism & recreation based on landscapes, biodiversity, cultures, archaeology, history, recreational opportunities.

# Rural Assets as Public Goods

- ◆ Rural assets have a high public or quasi-public goods component
- ◆ They are therefore not rewarded directly by the market
- ◆ BUT, it is possible to develop some market related activities around public goods, & devise other methods of gaining local benefit from them

This is a central focus of 'rural innovation'

# The case of Thise

- ◆ Characteristics of area and cooperative:
  - Remote and rural located in Mid-Western Jutland
  - Rural resistance against centralization of dairying and schools
  - In-migration of alternative “farmers” and professions
  - Self-reliant and highly educated and motivated leaders
  - In-house R & D
  - Mutual trust between leaders, university and research centre
  - Trust and cooperation with the retail cooperatives and high quality outlets
  - Open to consumer critiques and suggestions
  - A belief in the values of cooperation - Ability to take decisions
- ◆ The dairy
  - An R and D dairy, though knowing the market!
  - Keeps the local food store, the school and
  - 90 employees of which 35 are professionals
  - Technologically cutting edge but with respect for a pure raw material
  - 26 % of the fresh milk market in Dk is organic
  - Thise has 25-30 % of the fresh organic milk market
  - Increased the turnover from 2003 to 2006 with more than 100 %
- ◆ Public goods elements
  - Social capital among residents,
  - Pure raw material
  - Rural sustainability of rural services and economy improving environment, jobs, school and markets
- ◆ *With thanks to Poul Pedersen and [www.thise.dk](http://www.thise.dk)*



# Thise Mejeri



Poul Pedersen, MD  
with the Danish Food  
minister Hans Chr.  
Smidt at the office in  
Thise. Nov. 2004

Rural innovation takes  
many shapes and forms

The image features a solid teal background. In the bottom right corner, there is a stylized, dark teal silhouette of a mountain range with jagged peaks and valleys.

# Monticchiello, Tuscany

- ◆ Isolated & declining rural village in 1960s
- ◆ 1967 some of remaining 250 villagers decided to act
- ◆ Formed a theatre group Teatro Povero to perform dramas based on their history
- ◆ Attracted notice of well-known theatre directors, e.g. Peter Brook
- ◆ Growing crowds of visitors
- ◆ First asphalt road ever built in 1970s
- ◆ Other cultural events and new migrants attracted

Source: Lisbeth Weihe-Lindeborg, in *Entrepreneurial Spirit in Cities and Regions. Structural Change in Europe 4*. Hagbarth Publications.

# Other Rural Innovations based on natural and rural conditions

- ◆ Ecological or soil-based treatment of wastewater developed in Norway
  - move from large centralised nature-hostile systems, and so counter market power that is already established in the systems that create negative externalities
- ◆ Investment in local cultures and archaeology (eg Orkney Isles), creation of parks, mountain bike trails in forests, etc.
- ◆ Symbiosis between Bergen & rest of the county of Hordaland.
  - In addition to the “green areas”, cities consume food and create massive amounts of nutrients and organic matter which they need to “import” and “export” to the rural areas [Refsgaard et al. 2006]



# One-Stop-Shops

- ◆ Other specifically rural innovations concern service provision, for example one stop shops, multi-use centres, tele-health.
- ◆ Again these specifically respond to rural conditions and needs – the ‘original’ one stop shop was probably the combined rural post office-shop-fuel station!

# Does Rural innovation need 'clustering' ?

- ◆ Some, but not all, innovations in rural contexts *do* involve real or virtual clustering
  - E.g. organic farming in Norway, windmills in Denmark, jewellery in the Orkney Islands, health-related industries in Inverness in Scotland, furniture making in W Norway and Denmark
- ◆ BUT, many of the assets providing competitive advantages to rural areas are in fact characterised at least in part by *dispersion* and *anti-clustering*,
  - E.g. renewable energy, tourism, recreation, rural residence, ecological waste management & recycling etc.
- ◆ Moreover, rural areas have been at the forefront of innovative working practices – e.g. workflow management which facilitates working from home and within small communities rather than locating in (or commuting to) large cities.

# Rural Innovation has specific features

- ◆ Most (all?) rural innovations are not patented
- ◆ Often concern applications of new technologies especially those which have relevance to rural conditions and people's needs
  - E.g. new applications of ICT in education, health, research and local development were in the remoter rural areas where provision of these services, or undertaking such activities, posed real challenges (see e.g. Bryden & Fuller 1986; Bryden, Fuller & Rennie 1996)
- ◆ Local resistance to external threats is an important stimulus (e.g. Thise)

# Conclusions

- ◆ Ideas joining up theories of 'innovation systems' & 'city regions' into an ideology of centralisation are deeply flawed
  - They depending on simplified assumptions and incomplete understanding of a complex real world, especially the rural part of that real world
  - They misunderstand interlinkages/ interdependencies between rural areas and urban places and their different resources and needs
- ◆ Innovation is happening in rural regions,
  - e.g. transformation of public and quasi-public goods into opportunities for recreation, tourism, renewable energy, local food and drink, utilization of nutrients and residence with a high quality of life
- ◆ A sustainable future is a 'decentralised' future because we need,
  - Renewable energy and lower transmission losses
  - Ecological means of dealing with human 'waste' and recovering water
  - Work and services close to habitation
  - Revival of local democracy and decision making