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Innovation Systems in remote rural regions – Research findings on the northernmost Europe

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ENTREPRENEURSHIP & INNOVATION**

- CiiR – Centre for Inter-organisational Innovation Research
- A national excellence centre for innovation system research
- Operating 2011-2017 with 25 researchers from Luleå University of Technology and Umeå University
- Focus on conditions prevailing in non-metropolitan regions

Three intriguing questions:

- Are we hijacked by a specific technique to measure regional innovation?
- Are we hijacked by a specific type of innovation system?
- Are we (as researchers) hijacked by history?

Intriguing question 1:



Creative Class (Florida 2005)

Talent

Tolerance

Technology

Clusters (Porter 1998)

Co-located actors representing
specific competences/resources

Collaboration & rivalry

K-Samhället (Andersson et al 1988)

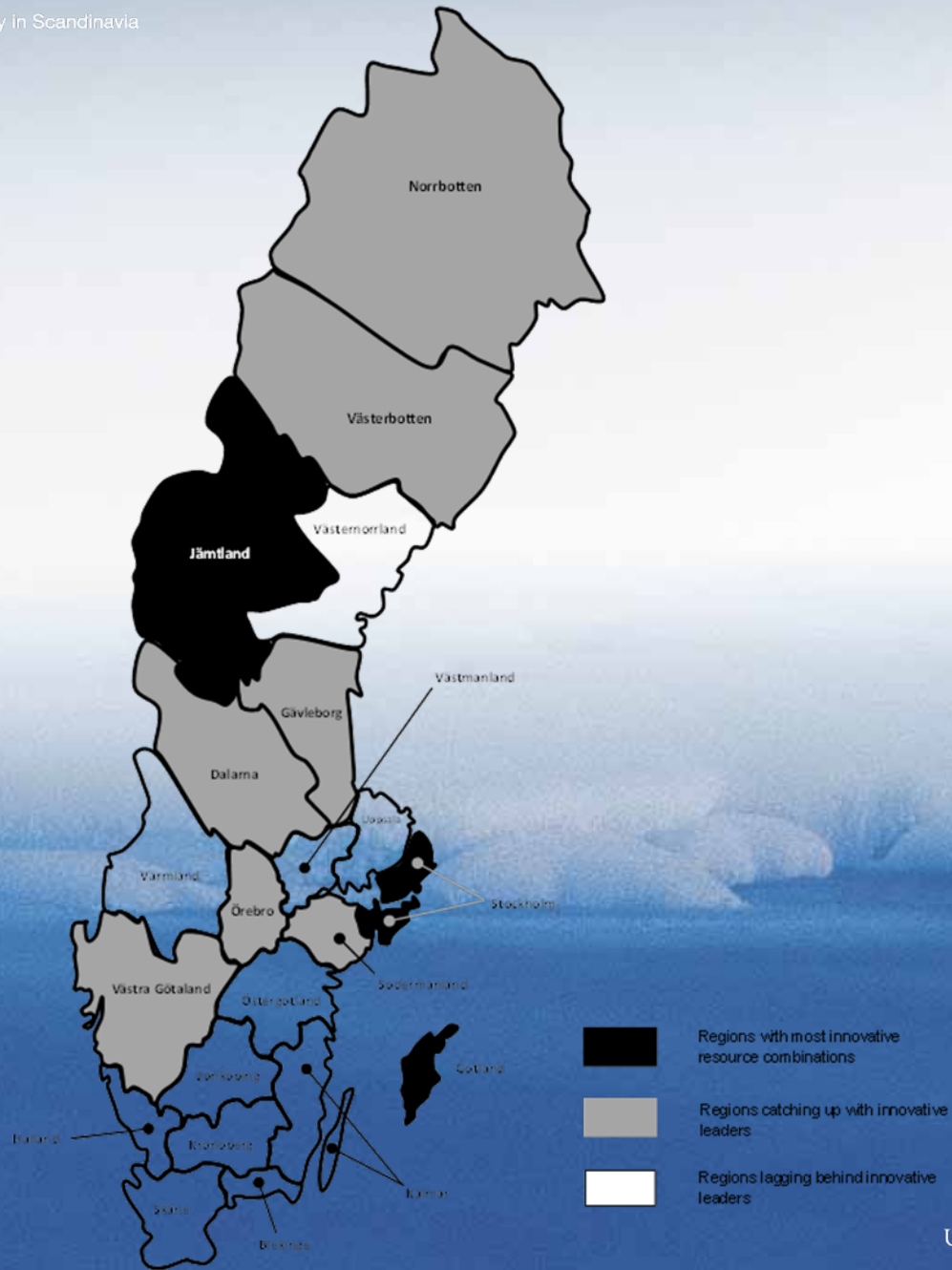
Konst (Art)

Kreativitet (Creativity)

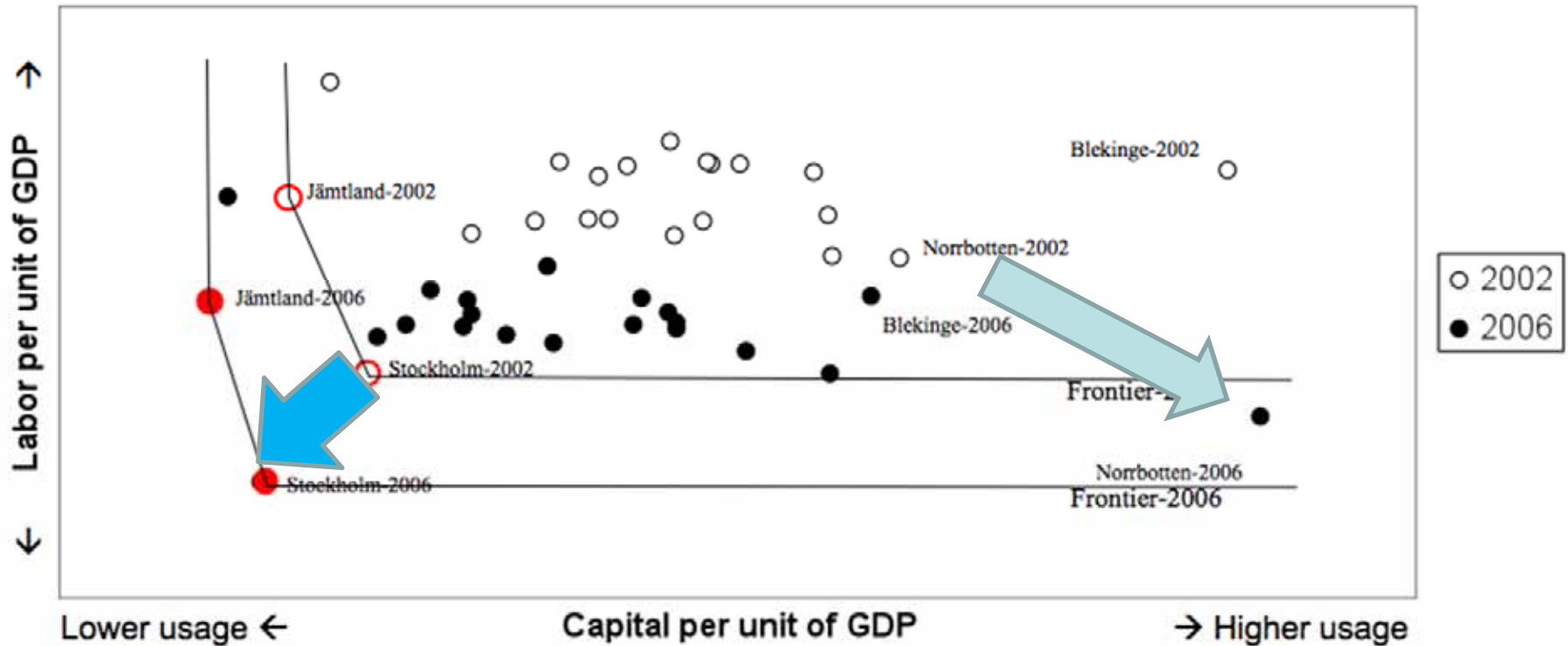
Kommunikation (Communication)

Industrial districts

Marshall 1920



Shift of technological frontier in Sweden, 2002-2006



Implication 1

- Important to recognise different kinds of innovations – we demonstrate a complementary measure to patent data
- Different kinds of innovations in different regions constitute a base for different kinds of smart specialisation

The ERIS/IRIS typology

(Cooke & Leydesdorff 2004)

Intriguing question 2:

Entrepreneurial Regional Innovation Systems (ERIS)

- The "new economy"
- Individual actors
- Collaboration between entrepreneurs, VC/business angels, researchers, incubators and demanding pioneering customers
- "Typical for USA and other Anglo-American countries"

Institutional Regional Innovation Systems (IRIS)

- Engineering-based knowledge
- Institutional actors
- Close collaboration between structures for production, knowledge development and institutional frameworks
- "Typical for Germany and the Nordic countries"

Type of system***Entrepreneurial regional innovation system (ERIS)******Institutional regional innovation system (IRIS)***

Image of the market

Ambiguous, potential collaborative space

Uncertain, risky competitive space

Type of innovation process

Action-oriented: Based on experimental learning

Planning-oriented: Based on need for overview, control and risk minimising

Strategies

Emergent

Planned

Time perspective

Emergence; Fuzzy vision combined with step-by-step action

Present and future; More clear vision combined with long-term planning

Organisational structure

Organic (loosely coupled); to a large extent based on trust

Mechanistic; to a large extent based on contractual ties

Contrasting entrepreneurial and institutional regional innovation systems

Type of system (cont.)***Entrepreneurial regional innovation system (ERIS)******Institutional regional innovation system (IRIS)***

Critical resources

Entrepreneurial skills
Venture CapitalManagement skills
Institutional capital

Decision logic

Effectuation: Taking action based on available/accessible resources

Causation: Planning for and controlling the future

Cooperation

Ad hoc-based, intermittent and often short-termed

Planned and long-termed

Critical performers

Actors: Individuals who form teams of complementary competences

Agents: Representatives for different sectors of society

Contrasting entrepreneurial and institutional regional innovation systems (cont.)

Source: Ylinenpää 2008

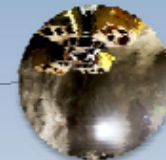
Implication 2

- Important to capitalise on the innovative potential of both IRIS- and ERIS-based innovation systems
- How may policy interventions support such an ambition?

Intriguing question 3:



Smart specialisation for Norrbotten region 2050?



Basic industry
region



Knowledge, creativity
and communication
as regional driver



Global warming
creating new
possibilities



Smart specialization
based on related
variety



“Medium
kingdom”

Implication 3

- Need for future-oriented scenarios facilitating more knowledge-based policy interventions...
- ... under-pinning very different regional identities and realities...
- ... where different scenarios require different investments & policy-interventions

- www.ciir.se



Questions & comments?