

Institutional Gaps in Cross-Border Regional Innovation Systems: The Horticultural Industry in Venlo - Niederrhein

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Research problem

- Border acts as barrier to cross-border knowledge interaction
- Actors in cross-border region embedded in a multilevel institutional architecture (MLIA)
- At the border institutional gaps occur
- Institutional gaps function as barrier to interaction, but
- Actors try to fill institutional gaps by making use of these levels, and creatively seek solutions to their cross-border innovation problems

Research Question

‘Which institutional gaps at the border influence the behaviour of actors in cross-border innovation, and what actions do these actors undertake to deal with these gaps?’

Regional Innovation Systems as MLIA

- RIS conceptualized as regionally interacting knowledge producing and knowledge exploiting actors, and the structure of institutions that supports these interactions (Cooke, 2005)
- Actors are embedded in networks at multiple levels, region accomodates these multiple networks (Rutten & Boekema, 2012)
- Actors in these networks are embedded in particular institutional architectures.
- National, regional, sectoral institutions produce place specific institutional architectures (Pike et. al., 2007).

Institutions facilitate knowledge interaction

- Institutions facilitate interaction in the region, and provide (temporary) stability for actors to have regularized and repeated interaction (Asheim et. al., 2011; Cooke, 2005).
- Institutions are often considered vague (Cumbers et. al., 2003; Gertler, 2010) and are used as a residual explanatory concept for variation in regional innovation performance (Rodríguez-Pose, 2013).
- Institutions do not wholly determine the actions of actors (Gertler, 2004). Therefore actors can influence the MLIA.

Institutions

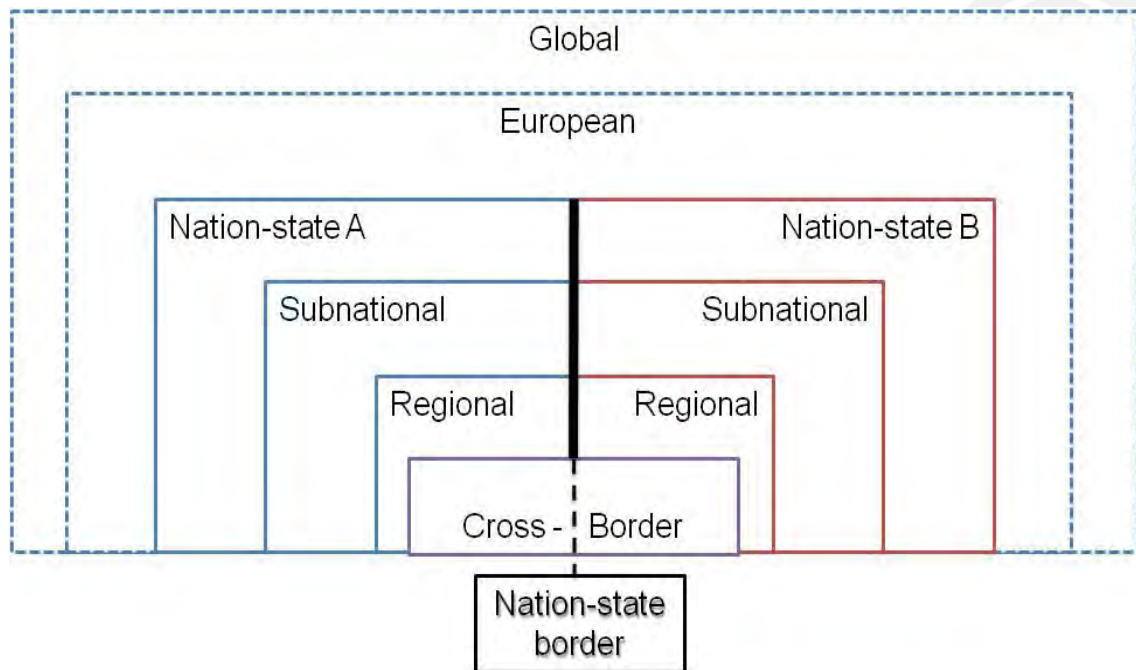
North (1990)

1. *Formal*: laws, rules and other juridical elements in an innovation system
2. *Informal*: Values, norms, routines, codes of conduct

Scott (2001)

1. *Regulative*: Strong overlap with formal institutions.
2. *Normative*: Morally governed, binding expectations, such as values, norms and codes of conduct.
3. *Cultural-cognitive*: Shared logics, common beliefs that are taken for granted, supported by culture and everyday practices.

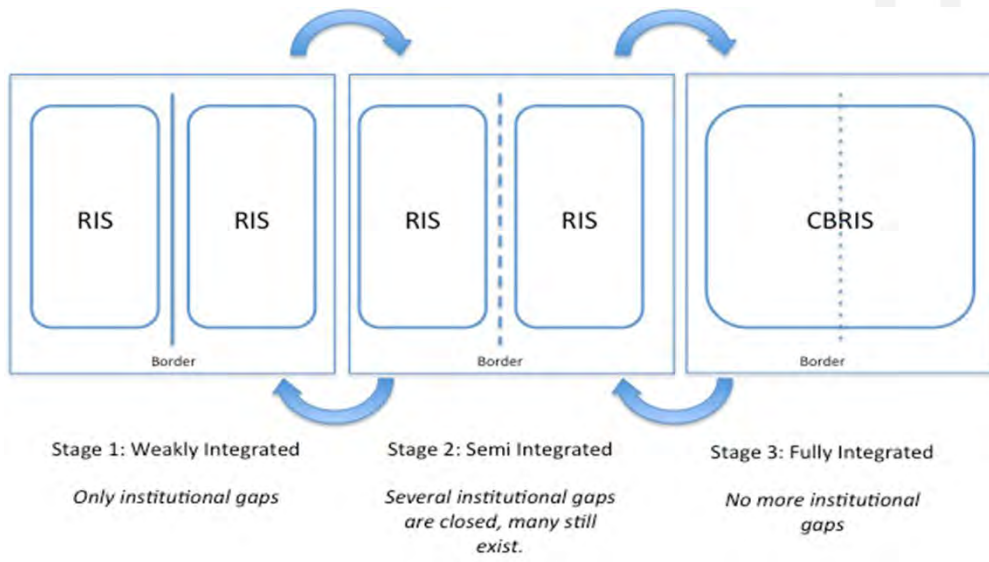
Institutions meet at the border



Institutional gaps and actor' strategies

- The influence of their respective MLIA on actors on both sides of the border can lead to institutional gaps that hamper cross-border cooperation.
- Actor' strategies for dealing with institutional gaps:
 - Creative destruction (Blatter, 2003)
 - Patching up (Genschel, 1997)
 - Transposition (Genschel, 1997)
- Institutional gaps and actors' strategies influence the evolution of CBRIS.

Feedback loops in CBRIS typology (Lundquist & Trippi, 2011)



Analytical Framework

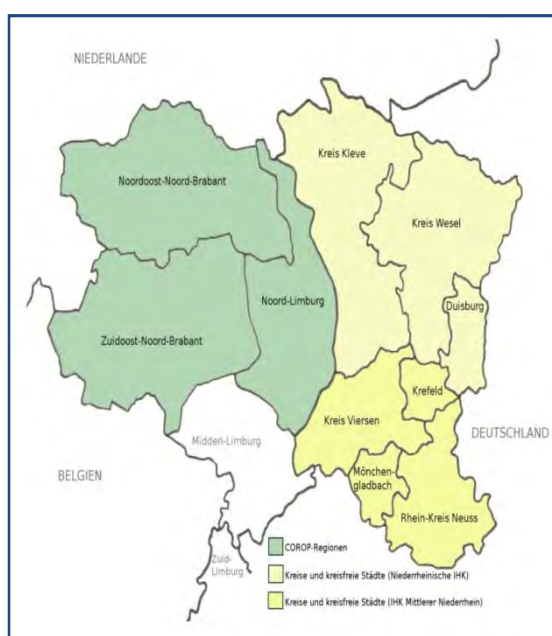
Objects of analysis	Concepts	Analytical approach
<i>Institutional gaps</i>	<ul style="list-style-type: none"> Regulative (Scott, 1995) Normative (Scott, 1995) Cultural – cognitive (Scott, 1995) 	Where are institutional gaps present for actors in the CBRIS.
<i>MLIA</i>	Embeddedness of actors in Multi-level institutional architectures	Analysis of the levels on which the institutional gaps are present.
<i>Agency</i>	Public and private strategies of actors <ul style="list-style-type: none"> Creative destruction (Blatter, 2003) Patching up (Genschel, 1997) Transposition (Genschel, 1997) 	Analysis of the actions actors undertake to deal with practical problems that are related to the institutional gaps.
<i>Results</i>	Forward, backward feedback loops or unchanged situation	Analysis of the results of actor strategies for the cross-border cooperation theme.

Methodology

- Exploratory case study
Venlo – Niederrhein region
- 24 semi-structured
interviews
- Research report on
horticultural industry
- Deskresearch policy
documents and reports
- Limitations



Case study



- Southern part Dutch – German border
- Cross-border cooperation related to agrofood and horticulture
- Focus on three themes:
 - Innovation policy
 - Skills on the labour market
 - Role of energy in horticulture

MLIA in Venlo - Niederrhein

Nation-state	Germany	Netherlands
Sub-national	State of North Rhine Westphalia (NRW)	Province of Limburg
Regional	Niederrhein, counties	Greenport Venlo, Region of Venlo (7 municipalities)
Local	Municipalities of Straelen, Nettetal	Municipality of Venlo
Cross-border	Euroregion Rhine-Meuse-North	

Table: MLIA in Venlo-Niederrhein



Innovation Policy	
Institutional gaps	<ul style="list-style-type: none"> • Role of horticulture in innovation policy in NRW and Netherlands • Policy making capability of subregional level (Limburg vs. Niederrhein) • National level priority in Netherlands no priority on state level NRW
Actor strategies	<ul style="list-style-type: none"> • Project development in Interreg IVA concerning horticulture • Niederrhein using strength on other side of the border to gain policy attention in own state

Skills development on the labour market	
Institutional gaps	<ul style="list-style-type: none"> • Nationally governed versus state governed education system • Accreditation by the Chambers of Commerce versus the national Ministry of Education. • Orientation of the vocational training system
Actor strategies	<ul style="list-style-type: none"> • Development vocational training initiatives on EU level (ECVET and EQF) • Student exchange projects

Energy usage in horticulture	
Institutional gaps	<ul style="list-style-type: none"> • National energy subsidization policy in the Netherlands • German actors have specialized in different products, production methods and innovation projects • German actors experience subsidization of energy as a form of uneven competition.
Actor strategies	<ul style="list-style-type: none"> • Commonly felt sense of urgency and cooperation opportunities related to energy • Public and private partners work together on project to build an innovative integrated system for new greenhouse development

Discussion

- Cross-border knowledge exchange influenced by different types of institutional gaps: regulative, cultural-cognitive and normative
- Multiple and divergent strategies for public and private actors to fill institutional gaps
- Origins and solutions concerning institutional gaps can be found on multiple levels in MLIA
- CBRIS characterized by forward and backward feedback loops depending on cooperation theme

Further research

- Role of border for innovating firms: what type of institutions on what level matter for what type of knowledge relations a firm has during the innovation process?

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