OECD Reviews of Regional Innovation Regions and Innovation COLLABORATING ACROSS BORDERS



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UNLEASHING INNOVATION THROUGH CROSS-BORDER COLLABORATION

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Regional development policy at the OECD: areas of research

Thematic reports

- Regional development
- Innovation
- Multi-level governance
- Urban development
- Rural development

<u>Data</u>

- Regional Database
- http://stats.oecd.org/OECDregionalstatistic #story=0
- Metropolitan Database
 http://www.oecd.org/statistics/datalal
 metro-explorer.htm
- Regional well-being Database

www.oecdregionalwellbeing.org

<u>Reviews</u>

- Regional development
 - National territorial reviews
 - Regional territorial reviews
 - Urban development
 - Metropolitan reviews
 - National urban policy reviews
 - Rural development
 - Rural territorial reviews
- Crossborder

Cross-

border

Cross-

border

- National rural policy reviews
- Reviews of regional innovation
- Water governance

Global increases in S&T-based collaboration but proximity still plays a role

Still a high concentration of R&D, patenting activity and venture capital

Spatial decay (150-200 km); neighbourhood effects; "cost" of the border increasing over time as measured by patent data



Challenges to boost SME international innovation collaboration; proximity matters

Businesses engaged in international collaboration for innovation, by size, 2012-14

As a percentage of product and/or process-innovating businesses in each size category



Note: International comparability may be limited due to differences in innovation survey methodologies and country-specific response patterns. European countries follow harmonised survey guidelines with the CIS.

Source: OECD, based on the 2017 OECD survey of national innovation statistics and the Eurostat, Community Innovation Survey (CIS-2014), http://oe.cd/ inno-stats, June 2017. StatLink contains more data. See chapter notes.

StatLink and http://dx.doi.org/10.1787/888933619106

Regions and innovation: the context of smart specialisation & industrial transition

- Continue to push for a broader-based innovation policy beyond S&T
- Consider the importance of embedded R&D
- Understand better the role of Global Value Chains
- Importance of local environment for SME performance
- Don't forget people

Different spatial scales of inter-regional research / innovation collaboration

Cross-border co-operation (contiguous areas)

• Trans-national co-operation (macro-regions)

• Inter-regional co-operation (internationally)

OECD cross-border innovation study (a few years ago)

- WHEN and HOW cross-border innovation policies should be designed and implemented *by*, *for* and *in* the regions
- When does it make sense to collaborate with cross-border *neighbours* (and when does it not sense)?
- > What governance approaches can be used to manage collaboration?
- > What policy instruments can facilitate cross-border innovation?

Metropolitan regions	Network of small and medium-sized cities	Sparsely populated areas
Oresund (Denmark, Sweden)	TTR-ELAt (Netherlands, Germany, Belgium)	Hedmark-Dalarna (Norway, Sweden)
Helsinki-Tallinn (Finland, Estonia)	Bothnian Arc (Sweden, Finland)	

Ireland-Northern Ireland (UK) (variety of settlement patterns)



Different rationales for cross-border collaboration

Economic concept	Driver	Explanation
Economies of scale	Critical mass	Larger labour markets; wider business and knowledge networks
	Political power	Better compete for higher level government resources
	Specialised services	Innovation support services of higher quality
Economies of scope	Complementarities	Diversity of assets (research, technology and economic base); "related variety"; price levels
Public and club goods	Regional identity	Increase internal recognition; social capital
	Regional branding	International attractiveness (firms, workers, etc.)
	Specialised infrastructure	Reduce costs and share risks
Externalities	Border challenges/ opportunities	Day-to-day issues associated with flows of people, goods, and services



Building on different kinds of proximity (and diversity)

Proximity	Favourable conditions
Geographic	Short spatial or physical distances allow for "tacit" knowledge flows
Cognitive	Shared knowledge base (need novelty but also common base). Concept of "related variety"
Organisational	Control uncertainty and opportunism (avoid lock-in)
Social	Trust and commitment for interactive learning (avoid lock-in and opportunism)
Institutional	Enabling factor providing stable conditions (need common practices but avoid lock-in and inertia)



Framework conditions

- 1. Geographic accessibility
- 2. Socio-cultural proximity
- 3. Institutional context conditions
- 4. Cross-border integration

Innovation system conditions

- **5. Economic specialisation**
- 6. Business innovation model
- 7. Knowledge infrastructure
- 8. Innovation system interactions

Governance and policy context

- 9. Governance
- **10. Policy mix**

Innovating beyond borders: Why and when to collaborate

Acting beyond borders	 Innovation does not stop at the border
Borders as bridges	 Openness cross-border goes hand-in-hand with better integration and competitiveness in global networks
Borders as opportunities	 Benefit from proximity, critical mass, complementarity expertise, greater international attractiveness, etc.
Defining the functional area	 Data reveal the innovation-relevant "functional" region ≠ administrative region, resulting in variable geometry
Checking for the right conditions	Checklist of ten conditions for a more or less favourable environment for cross-border regional innovation policy

Defining the "functional" cross-border area for innovation support can differ from other functions

IRELAND

Narrow border area







Note: These maps are for illustrative purposes and are without prejudice to the status of or sovereignty over
any territory covered by these maps.Source: Special EU Programmes Body.Source: Irish Academy of Engineering &
InterTradeIreland (2010), Infrastructure for an Island

Population of 8 Million.

Nederland Mederland George Selection Belgique-België Deutschland

High-tech systems

TTR



Source: Competitiveness Indices: BAR Basel Economics, 2012

Oresund Integration Index: tracking progress



Source: Oresund Committee (2013), Oresund Integration Index 2012.

Governing cross-border collaboration: Public and private engagement

Raise public interest at different government levels	 Each level of government (local, regional, national and even supra-national) has a role to play
Identify overarching vision	 Need a common purpose to unify different actions
Demonstrate mutual benefit	 Each side of the border will make its own assessment of the costs and benefits, and its share of these
Governance beyond government	 Use top-down and bottom-up levers, formal and informal governance that contribute to long-term relationships of trust
	 Ensure the private costor takes a sufficiently prominent role
Private sector engagement	in promoting the cross-border area

Governance issues the biggest challenge for cross-border areas (case studies)		
Characteristic	Specification	
National political capitals	Yes, each side	
	Yes, at least one	
	None	
Longevity of public co-	20 years+	
operation	10-20 years	
	<10 years	
Innovation policy competencies	Balanced, strong	
	Balanced, weak	
	Unbalanced	
Political commitment	Balanced, strong	
	Balanced, weak	
	Unbalanced	
Institutionalization of funding	Present, strong	
sources	Present, weak	

Making cross-border instruments work: Learning from international examples

Implement a strategy	 The vision needs to be translated into targets, actions, funding, and monitoring/evaluation
Develop a cross-border policy mix	 Co-ordinate and align different instruments to fulfil the strategy, addressing failures in the cross-border innovation system
Promote policy learning	 Design relevant policies based on needs and lessons learned from prior projects and programmes
Identify long-term funding	• Strive for sustainable funding opportunities, such as mainstreaming the cross-border element in existing instruments

Instruments applied cross-border

Strategy and policy development

Analytical exercises and mappings (mapping of clusters or value chains, technology foresight exercises)

Benchmarking and policy learning

Joint branding of the cross-border area

Technology transfer and innovation support

Cross-border innovation advisory services (vouchers, intermediaries) Advisory services to spin-off and knowledge-intensive start-ups Other technology transfer centres and extension programmes

Science and technology parks and innovation networks

Cross-border science and technology parks Cluster or network initiatives

R&D support

Joint public research programmes

Joint research infrastructure, shared access to research facilities Cross-border private R&D funding programmes (generic and thematic) Educated and skilled workers

Scholarships/student exchanges

Joint university or other higher education programmes Talent attraction and retention or mobility schemes

Cross-border labour market measures **Other instruments**

Financing (venture capital or angel networks) Public procurement/ border as a source of innovation/ innovation awards

Which instruments were easier to implement? More difficult?

- What generally seems to work?
 - Cross-border linkages of firms with providers (e.g., innovation vouchers)
 - Cluster-related support for areas of common competencies
 - Joint prioritised research
 - Access to shared S&T parks , scientific installations, joint centres
- Where are there examples of both success and failure?
 - Broad university collaborations; collaboration in specific fields easier
 - Researchers look for excellence over proximity; Students need right framework conditions (diploma recognition, financing, etc.)
 - Firm networking and matchmaking; leading to collaboration?
 - Cross-border cluster initiatives
- What is more difficult?
 - Attempts to allow funds from one country go to another (some exceptions)
 - Certain innovation projects in highly regulated sectors (health, energy)
 - International branding efforts often caught up in political sensibilities



Overview of recommendations

Innovating beyond borders

Defining the functional area

- Look at what the data says, but don't wait to start
- Only pursue the crossborder element when it makes sense
- Allow flexibility in the area definition so as to not create unhelpful new borders
- Don't under-estimate the importance of other "hard" and "soft" factors beyond innovation

Governing cross-border collaboration

Aligning incentives and working together

- Give politicians a reason to care about the issue
- Identify for supra/national governments where they can help local/regional efforts
- Understand different costs and benefits, and their alignment, for a long-term, trust-based collaboration
- Engage non-public actors in governance, with some form of secretariat

Making cross-border instruments work Learning from international lessons

- Devote more efforts to strategy development and policy intelligence
- Mainstream the crossborder element, and if not, align or allow for programme flexibility
- Make greater use of opportunities created by the border

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Publicize success stories of cross-border instruments