

# DEPARTMENT OF POLITICAL SCIENCE CENTRE FOR EUROPEAN STUDIES (CES)

# "GETTING BETTER ALL THE TIME?"

A study of cluster professionals' views
on the cluster policies' support
to the EU's concept of "Innovation Union"

#### **Ulrike Firniss**

Word count: 12754 words

Thesis: Master's thesis 15 credits

Program and/or course: EMAES – Executive Master's Programme in European Studies

Semester/year: Spring/Autumn/2017

Supervisor: Evangelos Bourelos, PhD, Assistant Professor

#### **Abstract**

'Innovation Union' by asking cluster professionals. The EU needs innovation to maintain today's level of welfare. The European Commission's maxim is that innovation is the key element for development, endorsing regional policy as a tool to unlock the growth potential. Regional policies have to identify and prioritise areas of Smart Specialisation (RIS3) to build competitive advantage. Clusters offer an integrated approach, both as concept of regional ecosystems of related industries, and as real economic phenomena. Clusters are building blocks of designing and implementing Smart Specialisation Strategies. Clusters, regions and innovation are interdependent. The literature overview deals with Commission communication on EU Policy Framework for clusters and with scientific articles on regional, innovation and cluster policies. These keywords support the research question and characterize the interview questions. Eight interviews were conducted with cluster professionals, from the Commission to local clusters, linking results to the research question.

This thesis contributes to the EU's concept of being 'Innovation Union' by analysing three EU 'policy gaps' with an unleashed potential of growth for clusters: upturn of the Interreg progamme, an amendment of RIS3, a new cross-sectorial cross-cutting partnership within the EU Urban Agenda. Yet, EU's cluster policies are indeed getting better all the time supporting the EU's concept of Innovation Union by reconciliation of two logics of political action, a systemic approach integrating different policies under a joint strategy, and an involving dynamism and knowledge disseminating. This answers the research question.

250 words

**Key words**: Regional Policy, Cluster Policy, Innovation Policy, EU Innovation Goal, Smart Specialisation Strategies, RIS 3, Interreg, EU Urban Agenda

#### **Abbreviations:**

COSME Europe's programme for small and medium-sized enterprises (EU funding)

DG GROW The Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

DG REGIO The Directorate-General for Regional and Urban Policy

ERDF European Regional Development Funds

GDP Gross Domestic product

HORIZON EU Research and Innovation programme with nearly €80 billion of funding available over 7 years (2014 to 2020)

INTERREG EU programme funding cross border, transnational and interregional collaboration

OECD Organisation for Economic Co-operation and Development

R & D Research and Development

RIS 3 Research and Innovation Strategies for Smart Specialisation

SSS Smart Specialisation Strategy

VGR Västra Götalandsregion

# Content

1. SCOPE OF THE THESIS	1
1.2. Research Question	2
1.3. Scientific Relevance	3
1.4. Definitions	4
1.4.1. Definition Innovation	4
1.4.2. Definition Innovation Policies	5
1.4.3. Definition Cluster	5
1.4.4. Definition Cluster Policies	6
1.5. EU national and regional Smart Specialisation Strategies	7
1.5.1. Smart Specialisation Strategy	7
1.5.2. RIS 3	8
1.5.3. RIS 3 Application in Västra Götaland	9
1.6. Summary	10
2.0. EU POLICY FRAMEWORK FOR CLUSTERS	11
2.1. Updated Smart Specialisation from July 2016	11
2.2. Start-Up Scale-Up from October 2016	11
2.3 Industrial Policy from September 2016	12
2.4. COSME calls for excellent clusters	12
3.0. LITERATURE OVERVIEW	14
3.1. Regional Policies	14
3.2. Innovation Policies	15
3.3. Cluster Policies	17
3.4. Discussion	19
4.0 METHODS	21
4.1. Elements	21
4.2. Epistemological and Theoretical Perspective	23
5.0 RESULTS	24
5.1. Summary Interviews	25
5.1.1. Regional Policies	25
5.1.2. Innovation Policies	
5.1.3. Cluster Policies	28
6.0. Policy Gaps	29

7.0 ANALYSIS	31
8.0 DISCUSSION and CONCLUSIONS	34
Bibliography	
APPENDIX	
A1 – A5 Interviews	1
A 6: Letter Suggestions to EU Commission	6
A 7: Letter Riksdagsinformation on "Policy"	9
A 8: Survey Urban Agenda	10

#### 1. SCOPE OF THE THESIS

In order to maintain today's level of welfare, the EU needs innovation. "At a time of public budget constraints, major demographic changes and increasing global competition, Europe's competitiveness, our capacity to create millions of new jobs to replace those lost in the crisis and overall, our future standard of living depends on our ability to drive innovation in products, services, business and social processes and models". <sup>1</sup>

According to Joseph A. Schumpeter (1883-1950), to whom the term 'disruptive innovation' is attributed, "carrying out innovations is the only function which is fundamental in history". <sup>2</sup>

The European Commission proclaims on its homepage: "Innovation Union' is the EU's strategy to create an innovation friendly environment that makes it easier for great ideas to be turned into products and services". The Commission's maxim is that innovation is the key element for the development of the European Union, an analysis supported by countless studies. The OECD estimates that 'different components of innovation together often account for at least 50% of economic growth'. The Commission conceptualized these components as a part of the Europe 2020 strategy in the flagship initiative "The 'Innovation Union', an action-packed initiative for an innovation-friendly Europe" This thesis adheres to this narrative and interprets the concept of 'Innovation Union' as a desirable direction the European Commission wants to go. The 'Innovation Union' is not a fixed target that will be reached and fulfilled someday, but due to the volatile nature of innovation it can rather been seen as a continuously on-going process of development, a moving target, so to speak. The 'Innovation Union' rests

<sup>&</sup>lt;sup>1</sup> Communication from the Commission COM (2010) 546 final

<sup>&</sup>lt;sup>2</sup> Sledzik, Karol 'Schumpeter's view on innovation and entrepreneurship" in SSRN Electronic Journal, April 2013

 $<sup>\</sup>underline{https://www.researchgate.net/publication/256060978\_Schumpeter \% 27s\_View\_on\_Innovation\_and\_Entrepreneurship} \\$ 

<sup>&</sup>lt;sup>3</sup> European Commission Research and Innovation Strategy <a href="http://ec.europa.eu/research/innovation-union/index.cfm">http://ec.europa.eu/research/innovation-union/index.cfm</a>

<sup>&</sup>lt;sup>4</sup> European Commission 'Innovation Union'; A Europe 2020 Initiative: <a href="http://ec.europa.eu/research/innovation-union/index">http://ec.europa.eu/research/innovation-union/index</a> en.cfm

<sup>&</sup>lt;sup>5</sup> "Understanding Innovation", EPRS European Parliamentary Research Service, briefing February 2016, author: Vincent Reillon, Members' Research serive PE 573.968

<sup>&</sup>lt;sup>6</sup> ibid

on a broad concept of innovation encompassing an open system where different actors collaborate and interact.<sup>8</sup>

The 'Innovation Union' endorses regional policy as a tool to unlock the growth potential of the EU by turning its priorities into practical action on the ground. Advanced regions need to stay cutting edge and underdeveloped regions have to catch up ('innovation divide').9 Research and Development (R& D) investment through Europe stagnated at 2% of GDP, with differences among member states ranging from 0,6% to 3,3%. These figures contrast with the concept of an 'Innovation Union', suggesting a deficit of implementation and poor alignment of EU policies with national and regional policies. <sup>10</sup> In order to make an impact, regional policies have to reflect on geographical and thematic context by identifying unique characteristics and assets, and by defining Smart Specialisation Strategies (SSS). Clusters offer an integrated approach for an excellence-driven vision of the future, both as a concept of regional ecosystems of related industries, competences, and as real economic phenomena. 11 Cluster professionals at all levels, within both the European Commission and those working in local context, are the ones who know best what is needed to 'create an innovation friendly environment that makes it easier for great ideas to be turned into products and services', as they work with businesses. Business, amongst other actors, form clusters. This thesis will identify policy gaps that could be turned into great opportunities for achieving innovation.

The field of research on clusters is infinite, the literature voluminous and can only be covered in fragments.

# 1.2. Research Question

"How do the EU's Cluster Policies support the EU's concept of an 'Innovation Union'"?

This study examines cluster professionals' view on the intersection of cluster policies and the EU's concept of 'Innovation Union' strategy, which is intended to "... create an innovation-

<sup>&</sup>lt;sup>8</sup> Commission Communication COM (2010) 553 final 'Regional Policy contributing to smart growth in Europe 2020'

<sup>&</sup>lt;sup>9</sup> Commission Communication COM (2010) 553 final 'Regional Policy contributing to smart growth in Europe 2020'

<sup>&</sup>lt;sup>10</sup> "Re-Finding Industry" Report from the Commission's High Level Group Strategy Group on Industrial Technologies, Conference Document 23 February 2018

<sup>&</sup>lt;sup>11</sup> 'Smart Guide to Cluster Policies', (2016) European Union, Guide Book Series

friendly environment that makes it easier for great ideas to be turned into products and services".

The sub research question inquires, "How regional, cluster and innovation policies foster tools for the EU's concept of an 'Innovation Union'."

The purpose is to render cluster policy recommendations to the Commission in order to unleash regional growth potential.

#### 1.3. Scientific Relevance

The current funding period (2014-2020) is coming to an end. The OECD figures mentioned above suggest a deficit of implementation and poor alignment of EU policies with national and regional policies. The literature overview reveals that the EU Commission's innovation endeavor has not fully reached scientific literature and, furthermore, there is an indication of silo approach to the concepts of cluster, regional policy and innovation. I claim, based on my empiric data, the EU will proceed in term of quality if clusters, regions and innovation were further entwined by supporting policy tools. This thesis' scientific relevance lies in binding together the three concepts *cluster policies*, *regional policies* and *innovation policies* in order to unlock regional growth potential by identifying policy gaps and endorsing innovative approaches to collaboration logics. The term "policy gap" adheres to the terminology used by cluster professionals, often used in conjunction with "policy recommendation". <sup>15</sup>

DG Grow has an explicit desire to use clusters to drive innovation. <sup>16</sup> They are the actors and the tool to "maximize the impact of EUR 121 bn of the European Structural and Investment Funds guided by smart specialisation strategies", by the words of Commissioners Bienkowska and Cretu. <sup>17</sup>. Cluster policies and innovation policies are the means to improve and facilitate

\_

<sup>&</sup>lt;sup>15</sup> In this context, it is important to clarify what a "policy" really is. "Riksdagsinformationen" answer to my question is not univocal, however, it says that "policy" usually refers to an intended direction, not to a legislatory act (see letter in appendix). I adhere to the wording used amongst cluster professionals and the deliverables on cluster calls (policy recommendations – what do we want the Commission to change), without indulging further into the terminology.

<sup>&</sup>lt;sup>16</sup> 'The role of clusters on supporting Smart Specialisation Thematic Platforms' Interreg Europe, Policy Brief: 20
Dec 2016

<sup>&</sup>lt;sup>17</sup> Foreword to 'Smart Guide to Cluster Policies', (2016) European Union, Guide Book Series by Commissioners Bienskowska and Cretu.

interactions between the actors of an innovation system by stimulating and enhancing the power to innovate, hence rendering higher performance.<sup>18</sup>.

Analyzing the results of my interviews, under consideration of the hints to a silo approaches in the literature; I conclude that an amendment of the policy tools displayed in this thesis leads to more innovation through clusters, thus increasing regional growth.

This paper assembles the spirit of the interviews with cluster professionals, new logics in EU cluster policy framework, the literature overview, and finally the tools to achieve regional growth. Thus, it binds the different elements of this thesis together into three coherent suggestions. These may serve the Commission as a foundation for updated EU cluster policies that support the EU's concept of 'Innovation Union'.

#### 1.4. Definitions

This part renders definitions for innovation, innovation policies, clusters and cluster policies, regional polices, which are the pillars of this thesis. The summary under point 1.6. shows how these are entwined. The analysis of the interviews under point 5.0 not only clarifies their interconnection, but stands proof of their interdependence.

#### 1.4.1. Definition Innovation

Innovation is about creating value. Innovation consists of the successful production, assimilation and exploitation of novelty in the economic and social spheres<sup>19</sup>. There are two ways (*at least*) to define innovation: either by means or by dissemination. Their essence is the creation of valuable outcome <sup>20</sup>.

The Commission applies the OECD Oslo Manual <sup>21</sup> defining means of innovation: **product** innovation, **process** innovation, **marketing** innovation and **organizational** innovation. *Product* innovation: a good or service that is new or significantly improved.

<sup>&</sup>lt;sup>18</sup> *Understanding Innovation*", EPRS European Parliamentary Research Service, briefing February 2016, author: Vincent Reillon, Members' Research service PE 573.968

<sup>&</sup>lt;sup>19</sup> Innovation and the Lisbon Strategy <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:n26021&from=SV">http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:n26021&from=SV</a>

<sup>&</sup>lt;sup>20</sup> "Understanding Innovation", EPRS European Parliamentary Research Service, briefing February 2016, author: Vincent Reillon, Members' Research serive PE 573.968

<sup>&</sup>lt;sup>21</sup> The Oslo Manual, 3 edition, OECD and Eurostat 2005

*Process* innovation: a new or significantly improved production or delivery method. *Marketing* innovation: significant changes in product design or packaging, product

placement, product promotion or pricing.

Organizational innovation: a new method in business practices, workplace organisation or external relations.

Another way of approaching innovation is to conceptualize its diffusion. E.M. Rogers, the founder of the Innovation Theory (1962), describes four steps. <sup>22</sup>

# 1.4.2. Definition Innovation Policies

Innovation policies by the Commission are initiatives that help to speed up the broad commercialization of innovation, in coherence with the EU's own description that innovation strategies "turn great ideas into products and services" (reference 3). They engage in many activities that support innovation in the EU mainly through the Horizon 2020 programme. <sup>23</sup> From an innovation policy perspective, industry commons are R&D, engineering and manufacturing capabilities that are of a collective nature and area-specific. <sup>24</sup>

The OECD has identified four areas of policy that are particularly important. These are:

- skilled workforce to generate and implement new ideas and technologies,
- a sound business environment that encourages investments,
- a strong an efficient system of knowledge and diffusion of knowledge,
- specific innovation policies to tackle red-tape barriers to innovation and entrepreneurial activities. <sup>25</sup>

#### 1.4.3. Definition Cluster

"A cluster is a geographical proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and externalities". (Michael E. Porter, 1998)

<sup>&</sup>lt;sup>22</sup> Everett M. Rogers "Diffusion of Innovations" (2003) 5<sup>th</sup> Ed, Free Press a division of Simon&Schuster Inc.

<sup>&</sup>lt;sup>23</sup> European Commission Innovation Policies <a href="https://ec.europa.eu/growth/industry/innovation/policy\_sv">https://ec.europa.eu/growth/industry/innovation/policy\_sv</a>

<sup>&</sup>lt;sup>24</sup> Slavo Radosevic et al "Advances in the Theory and Practice of Smart Specialisation Strategy" (2017), Academic Press, Elsevier p 3

<sup>&</sup>lt;sup>25</sup> OECD The Innovation Imperative, October 2015 <a href="https://www.keepeek.com//Digital-Asset-Management/oecd/science-and-technology/the-innovation-imperative\_9789264239814-en#page5">https://www.keepeek.com//Digital-Asset-Management/oecd/science-and-technology/the-innovation-imperative\_9789264239814-en#page5</a>

*Porter* highlighted and described the role of clusters for regional economic development, productivity growth and competitiveness. His idea is that regional clusters contribute to the dynamics within a region. Firms from the same sector enhance regional and national innovativeness, which generate specialisation and thus enhance innovation performance. <sup>26</sup>

Broekel et al understand clusters being a "non-random, geographical agglomeration of firms with similar or highly complementary capabilities" whereby "similar and related firms (...) form the basis of a local milieu that may facilitate knowledge spill-overs and stimulate various forms of Clusters appear in market driven processes, adaptation, learning, and innovation" (Malmberg and Maksell, 2002) <sup>27</sup>.

Clusters are cross-sectorial by their nature, as they refer to a concentration of related industries and institution, and thus can be platforms for innovation and industrial change (European Cluster Trend Report). Clusters are building blocks of designing and implementing smart specialisation strategies. In 2016, The European Cluster Panorama has identified 3043 strong regional clusters, accounting for 39% of European jobs, 55% of European wages and 87% of all patents.<sup>28</sup>

# 1.4.4. Definition Cluster Policies

Cluster Policies are an expression of political commitment, rendering a framework policy that opens the way for the bottom-up dynamics seen in clusters. Modern cluster policies follow a systemic approach that combines different policies, programmes and instruments, <sup>29</sup> which results in Smart Specialisation Strategies. COSME (sub-programme of Horizon) offers numerous supporting tools such as cluster calls within providing grants for the creation of new industrial value chains, quality audits, peer-to-peer learning, stress tests, joint lobby activities etc. An example of an outlived cluster policy is financial support to clusters who would not

\_

<sup>&</sup>lt;sup>26</sup> 'Regional Innovation and Cluster Policies in the New and Old Economy' Chapter 1 in 'Clusters in Automotive and Information & Communication Technology' (2011) Editor Paul J.J.Welfens, Lucius € Lucius Verlagsgesellschaft mbH, Springer

<sup>&</sup>lt;sup>27</sup> Tom Broekel, Dirk Fornahl, Andrea Morrison (2015) 'Another cluster premium: Innovation subsidies and R&D collaboration networks' in Research Policy 44 1431-1444

<sup>&</sup>lt;sup>28</sup> Smart Guide to Cluster Policies', (2016) European Union, Guide Book Series

<sup>&</sup>lt;sup>29</sup> Smart Guide to Cluster Policies', (2016) European Union, Guide Book Series

survive without. In a modern approach, in close conjunction to a regional Smart Specialisation Strategy, a region identifies its competitive advantages, related innovation opportunities and forms its cluster policies accordingly on the ground level. The Commission on the other hand gathers knowledge from all stakeholders and form overarching framework conditions to unlock growth potential even with regard to European cohesion, i.e. even taken less advanced clusters on board. The OECD presents a table on cluster policies in combination with specialisation patterns in selected OECD countries, such as creating and consolidating clusters, networking platforms, technology specialisation, internationalization and smart specialisation. <sup>30</sup>.

### 1.5. EU national and regional Smart Specialisation Strategies

This part describes Smart Specialisation Strategies (SSS) on a national and regional level, which in essence are the same phenomena, though different names.

"Smart Specialisation Strategy means the national or regional innovation strategies which set priorities in order to build competitive advantage by developing and matching research and innovation own strengths to business needs in order to address emerging opportunities and market development in a coherent manner" (Regulation No 1303/2017 of 17 December 2013)<sup>31</sup>

# 1.5.1. Smart Specialisation Strategy

Smart Specialisation Strategies are an evidence-based policy framework using indicators and priority setting tools to strengthen their existing specialisation. At the same time, they encourage the emergence of new domains of economic and technological accomplishments.<sup>32</sup> Regional and national governments attempt to enhance the competitiveness of firms and clusters by promoting these strategies. The OECD states: " *The main rationale for public policies to promote clusters … is an increase in knowledge spill-over amongst the actors in* 

<sup>&</sup>lt;sup>30</sup> OECD: Cluster Policy and Smart Specialisation <a href="https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interactionsforinnovation/clusterpolicyandsmartspecialisation.htm">https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interactionsforinnovation/clusterpolicyandsmartspecialisation.htm</a>

<sup>&</sup>lt;sup>31</sup> "Smart Specialisation and Europe's Growth Agenda", European Commission, Regional and Urban Policy April 2014

<sup>&</sup>lt;sup>32</sup> OECD: Cluster policy and smart specialisation <a href="https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interactionsforinnovation/clusterpolicyandsmartspecialisation.htm">https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interactionsforinnovation/clusterpolicyandsmartspecialisation.htm</a>

clusters and thus the generation of a collective pool of knowledge that results in ... more innovation". <sup>33</sup> Thus, Smart Specialisation Strategies are a very important tool to align EU cluster policies with the EU's concept of being an 'Innovation Union'.

#### 1.5.2. RIS 3

"Regional systems of innovation matter, as innovative network cluster in different parts of each national economy. They seem related to economic structure and their location seems to stay relatively stable over time" (De Bresson et al 1998, p 4) <sup>34</sup>

At regional level, Smart Specialisation Strategies are called RIS 3 (Research and Innovation Strategies for Smart Specialisation). RIS 3 supports the creation of knowledge-based jobs and growth both in advanced and less developed and rural regions. <sup>35</sup> Europe is ultimately a combination of linked yet heterogenic regional economies. <sup>36</sup> RIS 3 are a key feature of the European Commission's overall growth strategy EU2020, representing a strategic approach to economic development through targeted support for research and innovation. RIS 3 strategies are one of the precondition to reach the EU 'Innovation Union'. Quite remarkably, several of the people I talked could not describe the link between Smart Specialisation Strategies and RIS 3. The initiated researcher wonders why the same concept has two different names, thus creating confusion. I suggest to label RIS 3 strategies "Regional Smart Specialisation Strategies", to clarify the connection.

Not all member states have finalised their *regional* RIS 3 strategies, and by far not all regions have adopted these strategies. They are in fact a precondition to receive funds from the European Regional Development Funds (ERDF). Precondition for a successful application is – amongst other yardsticks – the cluster's embeddedness in its region's smart specialisation strategy. Since 2014, 120 Smart Specialisation Strategies were adopted, leading to around  $\in$  65

<sup>22</sup> 

<sup>&</sup>lt;sup>33</sup> OECD: Cluster Policy and Smart Specialisation ibid

<sup>&</sup>lt;sup>34</sup> "Innovation System Frontiers – Cluster Networks and Global Value" Brian Wixted (2009), Springer Verlag Berlin Heidelberg p 33

<sup>&</sup>lt;sup>35</sup> "National /Regional Innovation Strategies for Smart Specialisation (RIS3)" 2014 Factsheet Cohesion Policy

<sup>&</sup>lt;sup>36</sup> Report 'European Cluster Panorama 2016', prepared by Christian Ketels and Sergiy Protsiv, Center for Strategy and Competitiveness, Stockholm School of Economics p 5

bn of investments in research and innovation across Europe according to regional needs<sup>37</sup>. The European Smart Specialisation Platform guide, serving as a general orientation document, recommends six practical steps to develop the strategy. The total regional research and innovations investments should count for a minimum of 5% of Gross Regional Product. Industry, academy and civil society participate(d) in the process. <sup>38</sup>

National/regional research and innovation strategies for smart specialisation (RIS3) are integrated, place-based economic transformation agendas that do five important things

- They focus policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development, including ICT-related measures;
- They build on each country's/region's strengths, competitive advantages and potential for excellence;
- They support technological as well as practice-based innovation and aim to stimulate private sector investment;
- They get stakeholders fully involved and encourage innovation and experimentation;
- They are evidence-based and include sound monitoring and evaluation systems.

Table 1: Definition of RIS 3 40

A word count of the report "Guide to Research and Innovation Strategies for Smart Specialisations (RIS 3)" reveals that 'innovation' is mentioned several hundreds of time, whilst 'cluster' appears only 17 times, 'innovation policy' 9 times and 'cluster policy/ies' 0 times. The huge untapped potential might indeed be capitalized by giving cluster policies more attention, or in other words, aligned to the research question, to much more promote EU's cluster policies to meet the EU's concept of being an 'Innovation Union'.

# 1.5.3. RIS 3 Application in Västra Götaland

In Sweden, both terms are used in a somewhat shifting manner, and from some conversations, I have reason to believe even elsewhere. The Swedish government designed Smart Specialisation Strategies on a national level, but not on a regional level. Västra Götalandregion

<sup>&</sup>lt;sup>37</sup> Editorial *Smart Specialisation 2.0 newsletter*, Peter Berkowitz, Head of Unit for Small and Sustainable Growth, DG Regio 26/02/2018

<sup>&</sup>lt;sup>38</sup> "Smartspecialisering" Västra Götaland www.vgregion.se/smartsspecialsiering

<sup>&</sup>lt;sup>40</sup> Guide to Research and Innovation Strategies for Smart Specialisations (RIS 3) p 8 http://ec.europa.eu/regional policy/sources/docgener/presenta/smart specialisation/smart ris3 2012.pdf

(VGR)<sup>41</sup>, (which is both a country with 1,6 million inhabitants and a politically governed organization), and the county where I am working, conducted a comprising model for analysis on RIS 3, yet still opened up for a future revision. VGR display a high level of awareness on both the importance of innovative ideas and how to catch them. Likewise, in many other European regions, public procurement is a driver of innovation. Moreover, VGR's regional innovation platforms act as facilitators for employees with innovative ideas, as well as an entry point for companies <sup>42</sup>. My study looks at the SSS / RIS3 phenomena within Västra Götalandregion but it does not indulge in the shifting use of the terminology, as a third terms circles as well, which is "areas of strength".

# 1.6. Summary

We remember from the introduction that OECD figures suggest a deficit of implementation and poor alignment of EU policies with national and regional policies. These policies ideally incorporate innovation polices, cluster policies and regional policies into one integrated organism, which is not achieved in reality. Clusters, Innovation and Regional Policies have to be entwined in order to "turn great ideas into innovative systems and products", citing the EU's own wording (European Commission, 'Innovation Union'). It is a widely acknowledged and established fact that that clusters - consisting of businesses - contribute to the dynamics within a region, thus enhancing the regional competitive advantage. If clusters do see a growth potential they have no mandate to capitalize on, due to regional polices, not to business immanent issues - the Commission must act! Clusters are building blocks to design and implement innovation strategies, which in turn are a precondition to contribute to the EU 'Innovation Union'. In order to benefit from the ERDF funds, clusters have to be embedded in their regional smart specialisation strategies. Regional Smart Specialisation Strategies in turn are the foundation for innovation strategies, which are a precondition for clusters to develop. To answer the research question on how cluster policies support the EU's 'Innovation Union', I emphasize that regional cluster policies differ widely within the EU, thus highlighting the importance of the regional RIS strategies as a driver for innovation. Concrete examples in our

\_

<sup>&</sup>lt;sup>41</sup> Report from Västra Götalandsregion "Återrapportering uppdrag dnr 2016-02210" dd 2018-01-16

<sup>&</sup>lt;sup>42</sup> "Smartspecialisering" Västra Götaland www.vgregion.se/smartsspecialsiering

region is the cluster support given to the first cluster-building initiatives in the field of telematics, microwave and gaming received in order to get going, become innovative and create regional competitive advantage. Providing financial and human resources was part of the region's then cluster policy, which exemplifies how cluster policies, regional policies and innovation policies are interconnected.

#### 2.0. EU POLICY FRAMEWORK FOR CLUSTERS

This part describes Commission communication on EU policy framework for cluster policies and provides a summary of cluster calls under the COSME programme during the current funding period (2014-2020).

The Commission highlighted its three steering documents for the EU Policy framework for clusters at several cluster conferences (2017), and so did some of my interviewees. The special value of these steering documents lies in displaying inherent new logics, which this thesis recognizes. These logics, in turn, contribute to answerig the research question on how the EU's Cluster Policies support the EU's concept of 'Innovation Union'.

#### 2.1. Updated Smart Specialisation from July 2016

This document is about the EU's growth strategy EU 2020. The communication proposes strategies for resilient, inclusive and sustainable growth in order to strengthen innovation in Europe's regions national and regional authorities. These approaches are to design smart specialisation strategies in an entrepreneurial discovery process in order to use funding more efficiently and increase synergies at all levels. These strategies are about reconciling two **logics** of political actions, which are "setting vertical priorities and involving dynamism", describes the Commission. Reference: Commission Communication document name COM (2017) 376 final

#### 2.2. Start-Up Scale-Up from October 2016

This initiative boosts Europe's next leaders to become world-leading companies. The initiative gathers all supporting mechanism that the EU already offers. The **logic** is about co-creation as

a systemic approach in the quadruple helix realm. It fosters eco-systems where start-up can connect with potential partners such as investors, business partners, universities and research centers. The stigma of failure is abandoned by second chance. Moreover, the start-up scale-up initiative adds on venture capital investments, insolvency law and simpler tax fillings. A Pan-European venture capital fund of funds is launched. Europe has many young and innovative entrepreneurs, but has hitherto not fully tapped into the potential of its entrepreneurial capacity and talent. *Reference: Commission Communication document name COM (2016) 733 final* 

# 2.3 Industrial Policy from September 2016

The renewed EU Industrial Policy Strategy foresees investments in a smart, innovative and sustainable industry. Its new **logic** brings together all existing and new horizontal and sector-specific initiatives into a holistic strategy and a partnership in a new age, involving dynamism and knowledge disseminating. New platforms for dialogue, such as a High Level Industrial Roundtable have been created for an open, inclusive and collaborative dialogue with the Industry. The strategy foresees to support industrial innovation on the ground. *Reference: Commission Communication document name COM* (2017) 479 final

#### 2.4. COSME calls for excellent clusters

COSME is the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs). It runs from 2014 to 2020 with a planned budget of €2.3bn. <sup>43</sup>

During the current funding period, five COSME calls especially for clusters have been published. Whilst they all are imperative on the **logic** of cross-regional collaboration, remarkably, the objective of innovation is not explicitly mentioned in some of the calls, which is worth mentioning considering the EU's ambition to become an "'Innovation Union'" and DG Grow's explicit desire to use clusters as drivers of innovation (see footnote 11). This lack of involving the notion of innovation in (some) cluster calls raises the question on how the EU's cluster policies meet the EU's Concept of 'Innovation Union'. Indeed, the interim evaluation of COSME confirms that references to innovation were left out in the COSME programme, for

12

<sup>&</sup>lt;sup>43</sup> European Commission COSME <a href="https://ec.europa.eu/easme/en/cosme">https://ec.europa.eu/easme/en/cosme</a>

the sake of a more target and comprising approach enhancing competitiveness by focusing on framework conditions (p 26).

However, the interim evaluation on COSME makes its intervention **logic** clear: strengthened competitiveness, diffusion of innovation, policy innovation, enhanced innovation management and responsible innovation are all desired impacts, results and outcomes. <sup>44</sup>

Cluster Call	Objective	Expected Result
COS-CLUSINT-2017-03-6: Clusters Go International in the defence and security sector	Support European defence and security-related clusters and business networks to intensify collaboration across the borders with other non-defence industri- al clusters	Partnership agreements, internationalisation strategy plan, measurable performance indicators
COS-CLUSTPARTNS-2017-03-02: European Strategic Cluster Partnerships for Smart Specialisation Investments	Boost industrial competitiveness and investment in the EU via cross-regional cooperation and networking by supporting the establishment of a European Strategic Cluster Partnership of smart specialisation investments (ESCP-S3). Facilitate cluster cooperation in thematic areas related to regional smart specialisation strategies and increase the involvement of industry in this context. Platform for Industrial Modernisation.	Maximise the innovation uptake and productivity increases by matching R&D and innovative solutions and challenges and supporting interregional innovation activities. Creation of value chains linkages. SMEs are to find other innovation actors in clusters.
COS-Cluster-2015-3-02: Promoting Cluster Management Excellence Across the EU	Strengthen cluster management excellence, collaboration between cluster managers and regional authorities in charge of cluster policies	Value chain and market analysis, a mid-term strategy and roadmap for implementation, verifiable impact indicators, cross-cutting technologies, all forms of innovation
COS-Cluster-2014-3-03; Clusters Go International	Intensify cluster and business network collaboration across borders and sectoral boundaries and support the establishment of European Strategic Cluster Partnerships. Creation of favourable innovation ecosystems.	Emerging of new value chains, deliver a joint internationalisation strategy defining a joint 'European' vision, verifiable performance indicators of the project results and expected impact. Innovation projects.
COS-WP 2014-3-04: Cluster Excellence Program	Strengthen cluster management in the EU better exploiting and diffusing Key Enabling technologies (KETs)	Development of measurable indicators, report which local, regional and European funding programmes can be used to support future activities in this area. Nothing on innovation.
COS-Cluster-2014-3-04-02: Cluster Excellence Programme	Strengthen cluster management in the EU better exploiting and diffusing Key Enabling technologies (KETs)	Development of measurable indicators, concrete recommendations supporting man management process.  Nothing on innovation.

Table 2: COSME Cluster Calls in the present funding period (2014-2020)<sup>45</sup>

A valuable take-away from this overview for the result section are the methods applied by the Commission: reconciliation of two logics of political actions to set vertical priorities and involve dynamism; horizontal and sector-specific initiatives to feed into a holistic strategy;

<sup>44</sup> Interim Evaluation of the COSME Programme, Final Report, by Technopolis Group, 14 Dec 2017 https://ec.europa.eu/growth/smes/cosme/programming-monitoring-evaluation\_en pages 25, 26

<sup>&</sup>lt;sup>45</sup> Compiled by myself from the COSME homepage

application of a quadruple helix approach (*government*, *academia*, *industry*, *civil society*); and finally enhancing competitiveness by focusing on framework conditions.

#### 3.0. LITERATURE OVERVIEW

The pillars supporting the research question, which are regional policies, cluster policies and innovation policies, are the nodal points prioritizing the selection of articles. I chose these pillars, as the 'Innovation Union' endorses regional policies to unlock the growth potential by clusters (see introduction). The European Cluster Trend Report supports my choice of pillars, stating, "Clusters are cross-sectorial by their nature, as they refer to a concentration of related industries and institution, and thus can be platforms for innovation and industrial change". Regional policies, innovation policies and cluster policies thus target clusters. The objective of the literature overview is to see if the interconnection between the above mentioned policies is evident. A connection to present EU communication is less likely due to the timeframe; however, none of the three policies is new phenomena. Do scholars perceive EU cluster policies as an outspoken tool to boost innovation?

# 3.1. Regional Policies

*Kaiser and Prange* see a hinder in the multi-level character of innovation polices, consisting of significant variations amongst EU member states and regions when it comes to legislative and budgetary powers on the one hand and the European diversity of national innovation systems on the other hand. Their claim is that the knowledge of local conditions is responsible for the success of a policy programme<sup>46</sup>.

*Diez* observes that new regional polices devote much time to clusters and concludes that evaluation methodologies for assessing the impacts of cluster policies are changing, helping regional actors to know and understand how others comprehend the world. Participatory evaluation as a tool to monitor the progress becomes an integral part of regional policy.<sup>47</sup>

\_

<sup>&</sup>lt;sup>46</sup> Robert Kaiser & Heiko Prager (2004) 'Managing diversity in a system of multilevel governance: the open method of co-ordination in innovation policy,' Journal of European Public Policy 11:2, p 249-266

<sup>&</sup>lt;sup>47</sup> Maria Angeles Diez (2001) 'The Evaluation of Regional Innovation and Cluster Policies: Towards a Participatory Approach', European Planning Studiers 9:7, 907-923

Ismail Hakki Eraslan et al acknowledges that the clustering approach has become a central method of development initiatives of the state. They advocate regional development policies to take regard to spatial features and the importance to determine capacity to stimulate innovation to improve a region's competitiveness. Regional polices should not only be directed towards disadvantaged regions. Benefits of state funds for the long term are seen as questionable, as they pacify the region. Regional policies should be geared to increase the competitive power of a region. 48

Eklinder-Frick and Åge problematize on how to facilitate innovation within regional policy. They suggest a reconceptualising of the definition of policy innovation as the processual use within producer-user relationship. The common key concepts defining knowledge as a source of competitiveness and the region as a platform for agglomeration have formed the EU's regional innovation policy on high-order constructs. They contend a conceptualization on the systemic and institutional macro level. They doubt that the region is the central driver in innovation work, as innovation is not a result of politicians' willingness to promote regions. Managers should boost knowledge to be put into practice through joint projects. <sup>49</sup>

*Becker et al* investigate the growth effects of the EU's regional policy, which comprise the Structural Funds and the Cohesion Funds. Their finding is that indeed EU funds enable faster growth; however, a reduction in transfers in some regions would not reduce growth. They conclude that some reallocation of funds across target regions would lead to higher growth and even generate faster convergence than the current scheme does. <sup>50</sup>

**Oberservation**: Regional polices are closely entwined with cluster policies and innovation policies. EU is present in the literature overview, scholars establish that EU funds promote growth.

#### 3.2. Innovation Policies

-

<sup>&</sup>lt;sup>48</sup> Ismail Hakki Eraslan, Cem Cagri Donmez, Mustafa Kemal Akgul (2016) '*The Incoming Paradigm Shift with Globalization and Clustering Approach*' Science Direct, Procedia – Social and Behavioural Sciences 235 (2016) 101-109

<sup>&</sup>lt;sup>49</sup> Jens Eklinder-Frick and Lars-Johan Åge,(2017) 'Perspectives on regional innovation policy –From new economic geography towards the IMP approach" Industrial Marketing Management 61 (2017) 81-92 <sup>50</sup> Sascha O. Becker, Peter H. Egger and Maximilian von Ehrlich (2012) 'Too much of a good thing? On the growth effects of the EU's regional policy' European Economic Review 56 (2012) 648-668

Zehavi et al verify that innovation is essential to economic growth, yet stress that economic growth could be uneven and leave individuals and groups behind, allegedly establishing a link between innovations and growing inequality. Distribution-sensitive innovation policies, focused on disabled producers and consumers, are scarce indeed, but be a way to excel in innovation that can ameliorate inequities. The policies examined have the potential to reach both economic and social policy goal. There is a risk that policy makers will neglect that distributive aspect of these programs as a metric of their success, as they at the extreme "refuse to relate the concept of 'Innovation Union's to social policy goals".<sup>51</sup>

*Nielsen et al* offer a literature synthesis from 84 papers viewing sustainable innovation not only from the producer's sight, but also from the end-users or consumers sight. They suggest two distinct end-user innovation types: independent and facilitated. End-user innovation could indeed be counterproductive to the sustainability, as it could lead to more niche products and services for consumption. Sustainable innovation and end-user actions are viewed as separate issues, both from policy and research perspective. Policy makers could make more use of crowd funding, open source and sustainable living labs.<sup>52</sup>

Grubb et al develop a conceptual framework for policy mixes in sustainable transitions. They refer to economic literature that traditionally distinguishes between generic horizontal innovation instruments, and more sector or technology-specific vertical instruments, which approach specific industrial policy instruments. Horizontal policy instruments intend to enhance innovative the potential of markets, however, in reality, the market is the driver of innovation. Vertical innovation policies, however, often target public goods like health and environment, a statement that is to be found even at other sources of literature. The innovation chain is a useful structure for thinking about the policy mix across stages of maturity of a technology. <sup>54</sup>

Janger et al evaluate the usefulness of an indicator the Commission presented to capture innovation outputs and thus support policy makers to remove bottlenecks in the process of

<sup>&</sup>lt;sup>51</sup> Amos Zehavi, Dan Breznity 'Distribution sensitive innovation policies: Conceptualization and empirical examples' in Research Policy 46 (2017) 327-336

<sup>&</sup>lt;sup>52</sup> Kristian Road Nielsen, Lucia A. Reisch, John Thogersen 'Sustainable user innovation from a policy perspective: a systematic literature review' Journal of Cleaner Production 133 (2016) 65-77

<sup>&</sup>lt;sup>54</sup> Michael Grubb, Will McDowell, Paul Drummond 'On Order and Complexity in innovation systems: Conceptual framework for policy mixes in sustainability transitions' Energy Research & Social Science (2017) http://dx.doi.org/10.1016/j.erss.2017.09.016

creating successful innovations. There is an established relationship between the novelty of innovation and the economic effect. Scholars distinguish between 'radical' innovation and 'incremental' innovation, the latter being just as important as radical innovation. Innovation path can be structural change, representing a real move from low to high level of knowledge, or structural upgrading, preserving or reinforcing existing competitive advantage. The EU 2020 innovation outcome only uses patent, which the authors describe as "throughputs", not "outputs", as they conceptually do not need to imply actual innovation. The authors advocate measuring both structural change and structural upgrading when measuring innovation outcomes at country level. <sup>55</sup>

**Observation**: Clusters and regions not mentioned explicitly. Clear, though critical, connection to EU framework, no distinct connection to innovation polices boosted by cluster policies. Grubb et al claim that 'in reality, the market is the driver of innovation' I assert is questionable. Public procurement serves as a driver of innovation, as well, but shall not be dwelled upon further in this thesis.

#### 3.3. Cluster Policies

*Lundequist and Power* investigate main denominators for successful regional cluster initiatives that foster regional development. They conclude the need of a new form of economic governance, which embraces systemic, even holistic approaches to regional development, recognizing functional interconnectivity. <sup>56</sup> They advocate cluster based policies showing a variety of paths, many of which quite remote from Porter's original ideas such as empirical cluster identification, benchmarking and visions of regional development.

*McDonald et al* question if there is evidence to support Porter-type of cluster policies by conducting a quantitative analysis assessing the relationship between key cluster characteristics (depth, stage of development and industrial sector) and performance (employment growth and international significance). They doubt Porter's analysis establishing that the beneficial effects

<sup>&</sup>lt;sup>55</sup> Jürgen Janger, Torben Schubert, Petra Andries, Christian Rammer Machteld Hoskens '*The EU Innovation Indicator: A step forward in measuring innovation outputs and outcomes?*' in Research Policy 46 (2017) 30-42

<sup>&</sup>lt;sup>56</sup> Per Lundequist and Dominic Power (2001) 'Putting Porter into Practice? Practices of Regional Cluster Building: Evidence from Sweden' in European Planning Studies, Vol 10, No 6, 2002

from clusters are to be considered independent of industrial sector but in deep collaborative network producing competitive advantages. They conclude that Porter-type views on clusters "may not even be sufficient to create the bedrock conditions for regional development". The central point in cluster policies have to be industrial sector factors and the balance between networks at all levels and flows of goods, services, information and knowledge. <sup>57</sup>

*Polozhentseva and Klevtso* investigate instruments of development of cluster polices, such as stages, models and international practice. They show in sequence the formation of cluster policies on a regional level and identify indicators of cluster competitiveness. Their conclusion is that the national characteristics of cluster policies determine the direction of cluster initiatives depending on national conditions. <sup>58</sup>

Casaneuva et al highlight the lack of studies which focus on the knowledge transfer processes and the generation of innovation within the clusters, but fail to establish differences between the result of innovation and the distinct types of knowledge that support these findings. They contribute crucial factors of success to the design on efficient tacit knowledge networks when considering improvements to the innovative performance of the firm. They distinguish between tacit know-how (large proportion on non-codifiable knowledge) and explicit knowledge (quantities of information), yet both play a role in innovative performance. <sup>59</sup>

*Broekel et al* hypothesize if firms located in clusters are more likely to receive subsidies (from FP 6) than others. They reflect literature is more focused on the geographical location rather than the allocation dimension of R&D subsidies. They find the hypothesis confirmed to some extent. <sup>60</sup>

Delgado et al observe new regional industries in services and manufacturing emerging from strong regional clusters. They suggest that cluster agglomeration plays a role in the path of regional diversification. They conclude that the traditional distinction between industry

<sup>58</sup> Yulia Polozhentsevan and Maria Klevtsova (2015) *'Instruments od Development of Cluster Policy: Stages, Models International Practice'* 22<sup>nd</sup> International economic Conference – IECS 2015; Science Direct, Procedia Economies and Finances 27 (2015) 529-537

<sup>&</sup>lt;sup>57</sup> FrankMcDonald, Qihai Huang, Dimitros Tsagdis & Heinz Josef Tüselmann (2007) 'Is there Evidence to Support Porter-Type Cluster Policies? Regional Studies, 41:1, 39-49

<sup>&</sup>lt;sup>59</sup> Cristobal Casaneuva, Ignacio Castro, José L. Galán (2013) 'Informational networks and innovation in mature industrial clusters', Journal of Business Research 66 (2013) 603-613

<sup>&</sup>lt;sup>60</sup> Tom Broekel, Dirk Fornahl, Andrea Morrison (2015) 'Another cluster premium: Innovation subsidies and R&D collaboration networks' in Research Policy 44 1431-1444

specialisation and regional diversity is misplaced. Thus, regional policies encouraging complementarities are likely to be more effective than those prioritizing particular industries. Policy action should focus on building upon pre-existing comparative advantage to obtain and maintain strong clusters. <sup>61</sup>

*Observation*: Several clear interconnections between the three policies, however, EU cluster policies are not mentioned as an outspoken tool to boost innovation; instead, the significance of other tools is established, such as stages, models and international practice.

#### 3.4. Discussion

The literature overview gives a slight indication of silo thinking in alignment with my research question. There is a big discussion on clusters, innovation and regional policies but due to the complexity, there is little research on how EU's regional cluster policies support the EU's concept of 'Innovation Union'. It seems that EU's ambition to be an 'Innovation Union' has not reached the scientific literature; as EU cluster policy framework as an innovation driver is not mentioned, neither in the older literature nor in the new. The EU's intention of being innovative is by no means brand new; it is only re-packed into a new, fancy wording every now in then, preferably with 'State of the Union' speeches. Therefore, references might have been expected. Only some of the articles presented entwine the threesome: cluster policies, regional policies and innovation. Remarkably, not even the COSME calls always cover the threesome.

It is especially worth noting that McDonald et al suggest reconceptualising the traditional Porter definition of clusters, arguing that his well-established view is not beneficial for regional development. "Cluster Guru" Porter sees clusters to be *independent* of the industry sector, but *dependent* on a local supply chain, which is not sufficient to promote innovation. Scholars advocate a new form of holistic approach and functional interconnectivity, encouraging institutional developments by involving public and private actors (*which we in this study will* 

<sup>&</sup>lt;sup>61</sup> Mercedes Delgado, Michael E. Porter, Scott Stern (2014) 'Clusters, convergence, and economic performance' in Research Policy 43 82014) 1785-1799

find again packed as a quadruple helix approach (Interview 8) and the logic inherent in EU Policy Framework on Start-Up Scale up).

The literature overview has revealed connections between regional development, the encouragement of complementarities and the effects from reallocations of funds. It has also revealed a connection between employment, environment and innovation performance, establishing that vertical innovation polices often target these public goods. Scholars hypothesize and partly find evidence that the geographical location of a cluster is a determinator for subsidies. Yet, Grubb et al claim that the region itself is not be considered the driver of innovation, as innovation is not the outcome of a political determination. I do not agree with their statement, considering the political determination at both Västra Götaland to enhance innovation (example in chapter 1.5.3.). Furthermore, the City of Göteborg's newly established innovation strategy covers all the policy areas the OECD has identified as innovation drivers (chapter 1.4.2). Scholars establish that *national* characteristics of cluster policies play a role, which, in fact, is one of the findings of this study, as cluster managers I interviewed accentuated the lack of *regional and local* cluster policies. New regional industries are best derived from building upon comparative advantage, deriving from regional cluster agglomeration, establish scholars, applicable in real life to the massive focus on testbeds now in the Göteborg region.

The subquestion of this thesis is how regional, cluster and innovation policies foster tools for the EU's concept of an 'Innovation Union'. Are there any *other* ways to achieve innovation than the approaches in this shallow literature overview? Are there any policy tools for clusters to boost innovation, encompassing the new logics described in the Commissions Cluster Policy Framework? Based on the results of the interviews, there are indeed. All interviewees, at all levels, yearn for more cross-cutting, cross-sectorial collaboration. However, the tools encompassing such collaboration are not usable to their full potential, much to the frustration of clusters, thus presenting a policy gap according to the cluster professionals' terminology. Clusters professional foster tools for the EU's concept of an 'Innovation Union' by asking the Commission to make amendments in the present policy framework, both at conferences and by direct dialogue. A proof of evidence is found in the appendix (A 6 and A8). The most common tools mentioned are more Interreg Programme, a new partnerships within the EU Urban Agenda, and an amendment of the RIS 3 strategies.

#### 4.0 METHODS

My study is qualitative based on EU commission communication, literature overview and interviews. I chose interviews as a method to get a holistic and broader view of the data in order to answer the research question. In depth interviews was the most fitting method for this study and this topic, especially given the lack of concrete theories to be tested. An interview logbook and transcriptions are provided (appendix). Unique 'insider material' on the research question directly addressed to the Commission/ Country of Presidency is presented in the appendix by courtesy of our collaboration partner the Free and Hanseatic City of Hamburg, with concrete suggestion how to make cluster policies getting better all the time, expressing the general view of many cluster professionals.

#### 4.1. Elements

**Literature overview**: I searched through scientific articles on 'regional policies, 'cluster policies' and 'innovation policies'. Applying the method of content analysis, I worked with categories and codes to find the essence of their content. The fifteen articles shallowly summarized in this paper give hint a silo thinking and a lack of reference to EU policy framework - yet given the limited scope of this thesis, they could not be elaborated deeper.

Content Analysis: Content Analysis is a research technique for the objective, systematic and quantitative description of the communication examined. I reviewed European Union Communication, which builds a framework for cluster policies. Especially the COSME calls in chapter 2.4. were analysed according to the content analysis method in order to extract findings between cluster policies and innovation.

**Interviews:** *The appendix provides a logbook and the transcripts.* 

In order to find out more than literature reveals, I conducted interviews: one test and eight semistructured bespoken interviews across the hierarchy of policymaking. The test interview (not enclosed) gave important hints on the necessity of amendments. The intention was to gather perceptions about different aspects of the research question, by asking open questions. The interview questions were submitted beforehand in writing, taped and transcribed, thus having high reliability.

The interviews have high validity: the highly competent interviewees have been chosen is a logical chain of grading, the interview questions cover the scope of this study and specifically fall into the research question.

The interviews comprise the *local*, regional, county level and the Commission.

Commission level: At DG Grow as the source for policymaking, the Director Innovation respectively Head of Unit Cluster level accepted my request.

*National level*: I deliberately chose not to include the Swedish national level, but the county level, due to the confusion on the different terms SSS/ RIS 3, in essence 'same same but different'. I interviewed the nationwide organization *Cluster of Excellence* in Denmark because they work in a united and successful way different to Sweden's shattered approach. In Denmark, the entire country throughout all levels of policymaking, including several ministries, are engaged in cluster policies in a joint action. In Sweden, the counties very much depend on the Commission's Guide to the RIS 3 strategies <sup>88</sup>.

County level: Interview with the development department at Västra Götalandregion

*Regional level*: Interview with the director for the Business Region Göteborg's cluster and innovation department, representing thirteen municipalities.

Local level: Interview with two cluster managers of local clusters, one of them representing three clusters whilst the other has a special assignment in the City of Göteborg's new innovation strategy.

In all interviews, I lay special emphasis on the research question, i.e. are EU cluster polices considered a tool to enhance innovation, thus supporting the EU 'Innovation Union'.

**Deliminations**: The topic of cluster and innovation is infinite and, given the limitations of this study, impossible to cover. Very many aspects are not covered or even mentioned, such as differences in Horizon and Interreg programmes, new calls for strategic partnerships, input from other stakeholders such as the Joint Research Center etc. Furthermore, although the choice of interviewees tried to follow a logical path although limited path all the way from decision making to ground level, the list of angles, topics and interviewees could be endless. Given the scope of this study, the aspect of feasibility and proximity was very much taken into account, or to say it with Schumpeter's own words, 'conscious rationality' was applied, presupposing limits on the rationality and knowledge of individuals in both economics and politics.

\_

<sup>&</sup>lt;sup>88</sup> European Commission "Guide to Research and Innovation Strategies for Smart Specialisation RIS 3" May 2012

# 4.2. Epistemological and Theoretical Perspective

My paper has an inductive approach, deriving theories from specific observations, gathered both through my work building my researcher's bias and through the master studies. This approach allows finding patterns and frequent, dominant or significant themes inherent in raw data. Key themes are often hidden, reframed or left invisible, <sup>89</sup>or sometimes just mentioned by passing by. The inductive approach establishes facts on which theories or concepts are later built, moving from specifics to generalization. Some qualitative studies may begin with at least some notion of a theoretical framework. <sup>90</sup>

My research has a post-positivist perspective, accepting a degree of uncertainty, or, quoting Gray: "we can only approximate the truth, never explaining it perfectly or completely." Post-positivist research recognizes that all observation is fallible and has error and that all theory is revisable. Post-positivists reject the idea that any individual can see the world perfectly as it really is.

Rogers "Diffusion of Innovation Theory" offers a theoretical framework, conceptualizing the process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers 1995). By the words of Rogers: "Diffusion is a special type of communication process concerned with the spread of new ideas, messages that necessarily present the spread of a new idea, messages that necessarily present a high degree of uncertainty to the individuals involved." <sup>91</sup>

Schumpeter offers another theoretical concept. He identifies five stages to reach *new* innovation: introduction, new processes or methods, need of a new market, new supply sources and finally, an organizational change has to be carried out. <sup>92</sup> Schumpeter theorizes conscious rationality versus bounded rationality, meaning full awareness about an innovation contrasted to awareness bounded to certain limits, not quite knowing what you will get.

<sup>&</sup>lt;sup>89</sup> 'A general inductive approach for qualitative data analysis' by David R. Thomas, School of Population Health, University of Auckland, August 2003

<sup>90 &#</sup>x27;Doing Research in the real world' by David E. Grey, (2014) Sage Publications, London p 192

<sup>91 &</sup>quot;Diffusion of Innovations" (2003) 5th Ed, Everett M. Rogers, Free Press a division of Simon&Schuster Inc

<sup>&</sup>lt;sup>92</sup> Warda, Peter (2015), Gråsjö Urban, Karlsson Charlie '*Spatial Knowledge Spillovers within and between European Regions – A Meta-Analysis*' in Warda Peter: Knowledge, Location and Trad, Jönköping International Business School, Jönköping University, JIBS Dissertation Series No. 101 p 188

Schumpeter's attribute 'new' in connection to 'innovation' I do not see as a tautology, but as an inherent acknowledgement of the double-ness of innovation, both as a driver of growth but even the holding of an inherent element of unexpected consequences in the long run, <sup>94</sup> aligned with the Commission's quest for responsible innovation.

Both theories are applicable in the EU's endeavors to become an "Innovation Union".

#### 5.0 RESULTS

This chapter provides a summary of the interviews grouped around the nodal points that guided both the literature review and the structure of the interviews: regional policies, innovation policies and clusters policies.

My study has revealed several points that hold a potential to even further unlock the potential of EU cluster policies in the intersection of the EU's concept of 'Innovation Union'.

Without any doubt, EU cluster policies are getting better all the time, shaped to produce and enhance innovation in an iterative dialogue with stakeholders at all levels.

This study's title asks "Getting better all the time?" exploring how EU's cluster policies meet the EU's Concept of 'Innovation Union', referring to both time and quality.

The primary question on a development over time can be answered by different means: Comparison of midterm evaluations on the COSME programmes, Comparison of statistics provided by the Innovation Scoreboard, Analysis in the European Cluster Observatory, OECD statistics, European stress test for cluster policies, just to mention a few.

The question on the quality of EU Cluster policies, on the other hand, finds ample answers in my qualitative data collection. There are obvious patterns throughout the interviews.

-

<sup>&</sup>lt;sup>94</sup> Examples of inherent consequences in the long run: Asbestos, a celebrated innovative unorganic fiber construction material used literally everywhere in the 50<sup>th</sup>, highly carcinogenic, shaping a new wave of onehundredthousand mortalities per year as modern construction workers have not learned to recognize it. The sleeping pill neurosedyn (Contergan in Germany), due to its outstanding characteristic preferably prescribed to pregnant women, afflicting crippled of missing limbs to babies.

# 5.1. Summary Interviews

I applied the method of Content Analysis (see chapter 4.1) to identify patterns, comparisons, contradictions and interesting facts around cluster professionals' views on the concept of regional policies, innovation policies and clusters.

# 5.1.1. Regional Policies

An interesting, if not disturbing, fact is that none of the interviewees operating with regional clusters has come across any local or regional cluster policy they could indicate (Interviews 1, 3, 4, 8). 'What happens in the regions is not Europe', so it was said. (Interview 6). The inversion of this argument is 'what happens in Europe is not regional'. My conclusion is that something is going astray on the way from Europe to the regions, that bodies of multilevel governance do not translate EU cluster policies into tangible regional and local cluster policies (Interview 5). This indicates a large responsibility for local and regional cluster managers to keep up to date with EU policies, generating high transition costs and risking missing important information (Interview 3). As a pattern, my interviewees both at a local, regional and county level affirm well-function and structured collaboration with all actors in the value chain (Interviews 1, 3, 4, 7, 8). Yet, I claim the scope of collaboration holds a potential to be widened or to be re-defined by involving cluster managers in the process of defining RIS 3 strategies, which does not happen today.

An opposing approach is discovered when talking to the Danish cluster manager (interview 7). Denmark has chosen a completely different method by establishing a national cluster organization, directed by a strategy developed by all stakeholders all the way from relevant ministries to the clusters themselves (Interview 7). The impact on growth and innovation is evident and directly related to multilevel government knowledge transfer.

The interviews reveal criticism on the lack of European incentives to operate cross-border in the Interreg regions, thus missing a valuable opportunity to learn from each other (Interview 1,4,8). 'We do not form new clusters with each other. Europe misses a chance to enhance regional growth and improve its regions' competitive power', my interviewee (Interview 1)

refers to the strong clusters within chemistry and waste both in West Sweden and the Netherlands. Much knowledge is lost, but could be safeguarded by better cross-regional cluster policies. Referring to the research question, the EU cluster policies do not meet the EU's Concept of 'Innovation Union' in an optimal way when it comes to interregional collaboration. The Interreg programme holds an unleashed potential for development, however, the option to invest a certain percentage of regional funds from the Interreg programme in other regions (with full accountability) is hardly known nor attractive. These funds would do better to be reallocated to the target region, referring to the article of Becker et al.

At Västra Götalandregion, which is the overarching level for funding here in our region, there is no active position to analyse value chains outside the region, but an outspoken focus on five Science Parks in West Sweden. Still, an "awareness" of these value chains was indicated. (Interview 3). This is contrasted to the outspoken need by local clusters to monitor strong branches 'abroad' in order to act and react in good time (Interviews 1,4). However, as mentioned, regional cluster actors confirmed good, comprising and well-structured collaboration with the development officers of Västra Götalandregion in spite this limitation (Interviews 1, 3, 4, 5). The question may arise whose responsibility it is to monitor and analyse strong branches and value chains beyond one's own region. The question was raised on how much intervention from Europe can be brought to the national and regional level (Interview 6). Europe can only fund the art of collaboration between actors, but not pay for regional or local cluster policies or activities (Interviews 5, 6). The Commission indeed wishes a further reachout to regional clusters, (Interviews 2, 5). Regional authorities should be aware of the potential of cluster. "We hear from some clusters that regional authorities are not aware" (Interview 5). Referring to the research question, I claim EU's cluster policies could indeed be further developed to meet the EU's Concept of 'Innovation Union' by creating new regional task forces with a quadruple helix approach, which monitor strong branches abroad.

The interviews revealed a very shattered picture of regional innovation systems in Europe. Too many different regional eco systems prevail (Interviews 2, 5, 6). Cluster policies can be very regional, and there are different ways to measure the impact (Interviews 2, 5, 6). The Commission expressed a need to improve the collection and the information from all regions and to transfer this knowledge to regional stakeholders (Interview 5). DG Grow has launched a pilot project for regions undergoing industrial transition as a support (Interview 5).

Several yet unanimous visions were expressed in order to enhance regional growth. Regions that have developed cluster policies continue to develop (Interview 7). The Commission is zealous to get views across the regions on what they need and provides several cluster internationalisation programmes. (Interviews 2, 5) A successful tool is speed dating at cluster conferences, yet limited in its exertion due to the Commission's budgetary reality (Interviews 2, 7). Round table discussions aimed at co-creational processes have shown good results (Interviews 2, 5, 6, 7). An improvement of regional competitive power requires good relations between partnerships and between various kinds of actors, which is achieved by cross-sectoral collaboration (Interview 5). This is contrasted, once again, by some interviewees stating that there are not enough incentives to work in a regional cross-cutting manner (Interviews 1,4,8). The Commission on the other hand is eager to bring different actors at one table. (Interview 5). Co-creation is a very important process. The Commission applies very many different tools and dialogues with member states, ministries, clusters at different levels all the time (Interview 5). The New European Cluster Policy Forum, a new multilevel stakeholder agglomeration, met in Brussels February 21, 2018, and has met high expectations from the clusters (Interview 5). Its conclusion after the first meeting are more or less in line with the results of my interviews. <sup>95</sup> This new forum definitely is a powerful tool to make EU's cluster policies meet the EU's Concept of 'Innovation Union'.

#### 5.1.2. Innovation Policies

The policy rationale is to make innovation a priority for all regions. Clusters are unanimously regarded as driver of innovation. Innovation happens in the value chain (Interviews 2, 5). Cross-sectoral value chains have the highest potential to produce innovating, followed by cross-regional and international interaction (Interviews 2, 5). Public procurement is the driver of innovation, so is the demand side/ supply side (Interviews 2). Innovation policies are best put into practise by concentration of funding on several strong sectors, rather than spreading it out. We could use many more innovation eco systems such as Science Parks (Interview 3). Clusters have to be connected to Science Parks (Interview 3). Innovation policies have to apply a value

\_

<sup>95</sup> https://www.clustercollaboration.eu/news/first-european-cluster-policy-forum-sets-agenda-discussions-eu-countries

chain approach. They need to enhance the link between SSS and RIS3 (Interviews 4, 5). It is a challenge for innovation policies to meet with the successful method of cross-sectorial collaboration, for 'which is the right sector to foster', DG Grow asked rhetorically (Interviews 2, 5). Many different indicators, such as patents, access to new markets, and stimulation of production measure the innovation output according to the definition under the Oslo manual. However, monitoring the impact is a hot topic at present (Interviews 2,6). Innovation policies do aim at a moving target and are best capitalised by continuously ensuring a bottom-up entrepreneurial discovery process intersecting regional cluster policies (Interview 6). The 'hot topic' of monitoring as an outcome of that specific interview has a larger magnitude than I perceived at first sight, and becomes obvious when studying the logics of the EU Policy Framework on Updated Smart Specialisation Platform (chapter 2.1). Partners in an 'entrepreneurial discovery process' themselves establish objectives and metric themselves to measure their achievements – which, I claim, holds a certain risk of being bias.

# 5.1.3. Cluster Policies

DG Grow moves from cluster policies to innovation eco-systems. Europe has access to knowledge and Europe is its driver (Interview 6). Cluster policies rest on three steering documents (chapter 2.0) (Interview 5). Policies are to be linked to clusters, not to projects, and there has to be a mechanism for the uptake of ideas (Interview 2). Cluster policies create cluster initiatives (Interview 4) (described as an initiative or political effort to create, maintain, or upgrade an economic stronghold or cluster: Smart Guide to Cluster Policy)

Interview 4 reflected on cluster policies happening at a high level, asking if the level was too high. Clusters in simple regional context are not supported by COSME (Interviews 4, 5, 6). This is contrasted to another interviewee stating that cluster policies are intended to facilitate cross-border collaboration (Interview 1). There, support is giving in different phases. However, the topic of the state aid regulation was brought up again (Interview 2), as a limitation to financial support.

The knowledge transfer process is of vital importance to cluster polices, mentioned many times. *All* interviewees acknowledge that the EU is highly aware of clusters and their needs. Impact assessments from calls are conducted and published. Many incentives with value-chain focus

are put in place to create partnerships, living labs, smart cities, all with very high potential to foster regional growth, competitiveness and innovation. The European Cluster Collaboration Platform (ECCP) is to a very high degree a platform for knowledge transfer at all levels. (Interview 6).

My follow question if there was any negative side to all this dynamic was indeed acknowledged. 'Keeping the balance' is described as a difficulty, as the EU's endeavor to create EU value chains can be, and is sometimes, contrasted to a "what is in it for me" attitude (Interviews 5, 36). The European value added, promoted by cluster policies, is not the prime goal for regional and local politicians, which may be reluctant or even denying cross-border collaboration (Interviews 5,6).

I observe that an intersection of cluster policies with innovation policies as a mind-set seems somewhat remote in some regions (*or for some regional politicians*) in Europe, but highly present in others. The EU's cohesional endeavors displayed in the COSME calls may act as a counter remedy, however under the precondition that regions have established RIS 3 strategies, which, as we have learned is not always the case (chapter 1.5.2).

# 6.0. Policy Gaps

The OECD statistics from the first chapter of the thesis (reference 10) suggest an implementation deficit and poor alignment of EU policies with national and regional policies. Remembering the sub research question on how regional, cluster and innovation policies foster tools for the EU's concept of an 'Innovation Union', we have to listen to cluster professionals. Cluster professionals work on a daily base with business making their living on "turning *great ideas into products and services*". If clusters do see a growth potential and have no mandate to capitalize on it, I claim there is a policy gap, *according to the usage of this terminology as described under "scientific relevance*". These policy gaps need intervention from the EU. <sup>96</sup> None of these policies has been mentioned; neither in EU Policy Framework for Clusters nor the scientific articles. However, these policies all turn up in the interviews as a working methodology and the possibilities cluster professionals wish to have access to. Therefore, this thesis suggests to the Commission to focus on the potential of:

- 1. the popularity of Interreg programme and publish more such calls
- 2. the idea of a new cross-cutting cross-sectorial partnership for the EU Urban agenda and
- 3. an amendment of 'Research and Innovation Strategies for Smart Specialisation (RIS 3)'
- 1. The European Regional Development Fund (ERDF) finances the Interreg Europe Programme. The first priority axis is dedicated to innovation policies and RIS3. 97 The Interreg programme is popular amongst clusters, as has been said at many conferences, much more than this thesis can verify by quotes. The Interreg programme is doable, manageable and results in beneficial win-win inter-regional cooperation. Spatial spillover produces innovation, thus making the very best of cluster policies. The Interreg programme has a potential to capitalize on knowledge transfer of good practice and policy experience, for the benefit of the clusters. The question occurs at this point, why cluster professionals do not applause the biggest EU Research and Innovation programme ever, Horizon 2020, with a funding of nearly €80 bn available over 7 years (2014-2020). The reason is the enormous complexity, resource intensity and difficulty to apply for the programme, which shows in very high failure rates. Many regions (unofficially, no quotes!) have taken a decision not to apply anymore. The interviewees, and the general opinion at cluster conferences, require more Interreg calls!
- 2. The Urban Agenda has twelve official partnerships on prioritized topics that meet Europe's challenges but no cross-cutting cross-sectorial partnership on interregional collaboration and cluster policies. On a global scale, most European cities are too small to be visible and competitive due to limited critical mass, a pre-condition of effective clusters. Many have started joining forces with their urban and rural neighbours: they are setting up joint governance structures in their functional regions to enhance competitiveness as well as the pace of innovation in order to achieve or to maintain their national, European or global visibility. All of these metropolitan areas, regions or business regions are cohesive systems in themselves. Urban and rural partners work on a win-win basis and across administrative borders, collaborating in functional regions. Cooperation is based on long-term agreements,

<sup>&</sup>lt;sup>97</sup> Interreg Europe Programme Manual December 13 December 2016 (version 4)
<a href="https://www.interregeurope.eu/fileadmin/user\_upload/documents/Call\_related\_documents/Interreg\_Europe\_Programme\_manual.pdf">https://www.interregeurope.eu/fileadmin/user\_upload/documents/Call\_related\_documents/Interreg\_Europe\_Programme\_manual.pdf</a>

a position forwarded to the Commission by German cluster professionals. 98 A cross-cutting cross-sectorial official partnership within the EU Urban Agenda would unlock a great potential. The Estonian presidency caught these impulses from member states and released a questionnaire. The German position describes the issue: "National as well as European competitiveness depends largely on the performance of such functional regions in research and development, in setting up cluster policies, attracting qualified workforce or coping with challenges like digital transition, climate change or circular economy, which no longer can be dealt with within the administrative boundaries of a city alone. "99 The Bulgarian presidency is now evaluating the answers.

3. RIS 3 strategies have no mandatory demand on internationalisation or European cooperation. As a bottom-up initiative, officially presented to DG REGIO, cluster organisations organised in the INTERREG North Sea project "Northern Connections" 100 raised a claim accordingly. This project aims at inter-regional cooperation with focus on renewable energy clusters. Cluster professionals complain that without such a chapter they are lacking the explicit mandate as well as financial resources available for European cooperation, a point of view often raised at cluster conferences, as well.

#### 7.0 ANALYSIS

This chapter makes use of the literature overview and aligns some of the scientific articles with the results from the interviews.

The method for analysing the interviews is the 'content analysis' (appendix). An obvious pattern is the frequent mentioning of: co-creation, cross-sectorial and cross-regional collaboration, the need of clusters as a driver of growth, the lack of cluster policies at a regional/ local level, the importance of the value chain, the need to connect clusters to innovation eco systems, the need to go from cluster policies to innovation eco systems. Quite consistently, the

<sup>98</sup> Letter dd March 1st, 2018 from the Free and Hanseatic City Hamburg to DG Regio, Director-General Marc Lemaitre

<sup>&</sup>lt;sup>99</sup> Questionnarie from the Estonian Presidency, Urban Agenda for the EU, Survey on new Priority Themes and Partnership, 13 December 2017, Filled in by: Tilman Buchholz, Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Germany, 12 Jan 2018

<sup>&</sup>lt;sup>100</sup> Interreg Northern Connection http://northsearegion.eu/northern-connections/

interviewees considered financial support to weak clusters as misdirected. Last not least, all interviewees affirmed that EU cluster policies indeed are a tool to enhance innovation, an important finding for this study and an answer to the research question.

The Commission, but none of the cluster managers, mentioned the industry as driver of regional growth, speaking about demand and supply side accredited to industry. The literature reviewed discusses industry frequently and with different angles, such as *Eklinder-Frick and Åge*, questioning whether regions are central drivers of innovation, but advocate knowledge boost through joint industrial projects. McDonald et al question refute *Porter's* ideas and believe industrial sector factors should be the central point in cluster policies.

It is worth noting that Västra Götalandregion is not actively analysing value chains out of the region, but confirms a certain understanding. The regional /local clusters do not do it either in a systematic way. The question may arise whose responsibility it is to monitor and analyse strong branches and value chains out of one's own region. An interesting finding is the Commission stating in the report on RIS 3 that "openness to other regions, countries and globally, is not well developed in most strategies, and even the cross-border dimension remains marginal." Lundequist and Power conclude the need for a new form of economic governance and holistic approaches to regional development.

"We need one innovation eco systems for Europe, not all the different regional ones", says DG Grow (Interview 2). I contrast this statement to a "not one-size-fits-all" practise. Much knowledge transfer is conducted through best-practise, which, for instance, the Eurocities network <sup>102</sup>utilizes in its various working groups. Best practise models emerge from well performing regions, applying well-performing tools. However, I observe a big difference between innovation drivers in Northern Europe compared to the South, or in high-tech areas compared to areas that just start a journey to digitize its economy. Both the Regional Innovation Scoreboard and various Open Space arrangements at cluster conferences show that preconditions are diverging. *Kaiser and Prange* in the literature review praise the knowledge of local conditions for the success of a policy programme.

\_

<sup>&</sup>lt;sup>101</sup> European Commission (2015): Perspectives for Research and Innovation Strategies for Smart Specialisation (RIS3) in the wider context of the European 2020 Growth Strategy p 78

<sup>&</sup>lt;sup>102</sup> Eurocities is a network for major European cities, with the objective to influence and work with the EU institutions to respond to common issues that affect the day-to-day lives of Europeans.

Regional authorities should be aware of the potential of cluster. "We hear from clusters that regional authorities are not aware", says the Head of Unit for Clusters at DG GROW. Clusters in simple regional context are not eligible for EU funding. The updated RIS 3 strategy asserts that RIS3 strategies are a pre-condition for ERDF funding. EU member states must have RIS 3 strategies in place before their operational programmes supporting these investments are approved. *Diez* suggested in the literature a regional policy to integrate participatory evaluation as a tool to monitor progress.

DG GROW frequently emphasized the necessity to have mechanisms for the up-take of ideas. The tools are plentiful, such as polls on the ECCP platform, the cluster conferences, and the dialogues with all stakeholders. On a national level (Denmark), my interviewee (Interview 7) consented and agreed they easily could call their contact persons at the Commission. At a regional or local level, however, and even within the ongoing cross-regional projects, which have to deliver policy recommendations as a project outcome, the distance seems very remote.

None of the interviewees operating with regional or local clusters has come across any cluster policy they could indicate. Here, it was must be clarified that the European State Aid Regulations allow and set certain limits for coordination and network failures aid to innovation clusters (Commission Regulation (EU) no 651/2014). (Interview 2). However, I contrast their lack of experience or knowledge to the statement that county collaboration is functioning very well. One explanation might be that the role of "Europe" is not clear to cluster managers, as was said in interview 6. It is not the task of the Commission to support local clusters financially, but to build an overarching framework. This misconception could easily be erased by actively including clusters in the definition of RIS 3 strategies.

The issue of failed cluster policies in form of financial support weak regions financially, which all interviewees mentioned as an example, is dealt with in the literature. *Becker et al* conceptualize the re-allocation of funds across target regions leading to higher growth and faster convergence than the present schemes. *Broekel* et al research on firms located in clusters are more likely to receive subsidies and find their hypothesis confirmed to some extent.

The dissemination of knowledge is an important tool to merge cluster policies with innovation. The interviews confirm the importance to make knowledge accessible to all stakeholders. Roger's "Diffusion of Innovation Theory" conceptualizes the process by which an innovation is communicated through certain channels over time among the members of a social system

(Rogers 1995, reference 91). Cluster professionals indeed are members of a social system, exchanging knowledge at cluster conferences or communication platforms.

The research question how the EU cluster policies support the EU's Concept of an Innovation Union' was without any doubt consented by all interviewees, giving examples, such as platforms coming from the SSS, the Commissions engagement with clusters coming from the SSS, the funding for collaboration projects. DG Grow does a real good job; some interviewees assert the research question.

### 8.0 DISCUSSION and CONCLUSIONS

Much is done, much needs to be done, as the process of aligning EU cluster policies with the EU's Concept of 'Innovation Union' to "turn great ideas into innovative systems and products" is continuously ongoing. Yet, as mentioned in chapters 2.4. and 4.2, the EU propagates responsible innovation as an outcome of its funding tools. Innovation is not to be pursued at any price, but it can come with risks. There are huge, untapped potentials to link region-specific areas of smart specialisation to EU platforms, networks and agendas that are the grounds to turn great ideas into innovative systems and products. <sup>111</sup>

Numerous analysis conducted by European Commission disclose that cross-cutting collaboration of related firms is a significant source of innovation and knowledge transfer, as has frequently been emphasized in my interviews. A change in innovation dynamics, such as disseminated knowledge, would be a megatrend of the future, sought for by cluster professionals. The share of cross-sectoral activities is gaining importance all the time, although it varies across industries. New cross-sectoral value chains linkages develop in geographically close clusters, however, there is a potential for more internationalisation. <sup>112</sup> "The main rationale for public policies to promote clusters through infrastructure and knowledge-based investment, networking activities and training, is an increase in knowledge spill overs among actors in clusters and thus the generation of a collective pool of knowledge that results in higher

\_

<sup>&</sup>lt;sup>111</sup> European Commission (2015): "Perspectives for Research and Innovation Strategies for Smart Specialisation (RIS3) in the wider context of the European 2020 Growth Strategy" p 79

<sup>&</sup>lt;sup>112</sup>EU Cluster Observatory Report, European Cluster Trends, Executive Summary, February 2015, European Commision prepared by: Kincsö Izsak, Technopolis Group, Gerd Meier zu Köcker, VDI/VDE-IT <a href="http://ec.europa.eu/growth/smes/cluster/observartory">http://ec.europa.eu/growth/smes/cluster/observartory</a>

productivity, more innovation and an increase of competitiveness," acknowledges the OECD. 113

On the day-to-day policymaking within the COSME programme, DG GROW uses the following elements enabling EU cluster policy: the EU added value in EU industrial policy, meaning there has to be positive spill-overs from one cluster to another across the member states, adhering to Roger's theory on the Diffusion of Innovation. Modern cluster policies aim to put in place a favourable ecosystem for innovation and entrepreneurship. New winners can emerge and support the development of new industrial value chains and emerging industries 115.

Some fields with a potential to unleash innovation through cluster policies are described in the section "policy gap", answering the sub research question (chapter 1.4.2.) how regional, cluster and innovation policies foster tools for the EU's concept of an 'Innovation Union':

- the advantage of a new cross-cutting partnership within the EU Urban Agenda
- the amendment to RIS3 to include internationalisation and
- the upturn of Interreg programmes to foster spatial knowledge spill-over

The following points answer the overarching research question on how cluster policies support the EU's concept of 'Innovation Union'. These points capture the logics described in the EU Policy Framework for clusters, get support from both the scientific articles and the interviews in alignment with the policy gaps revealed. Hence, these points assemble new logics in EU policy, the literature overview, the essence of the interviews and finally the tools to overcome policy gaps into united and comprehensive answers, thus binding all the different concepts on this thesis together to coherent answers and to scientific relevance. We remember from the introduction the OECD estimating that "different components of innovation together often account for at least 50% of economic growth" (reference 5). Here is the clue:

<sup>&</sup>lt;sup>113</sup> OECD on Clusters and Smart Spezialisation <a href="https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interaction for innovation download 2018-01-24">https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interaction for innovation download 2018-01-24</a>

<sup>115</sup> Smart Guide to Cluster Policies', (2016) European Union, Guide Book Series

Reconciling two logics of political actions by setting vertical priorities (fields, technologies, activities) rather than generic priorities (increasing cooperation or improving human capital). 

116 The integration of two logics can hence be applied both on an overarching EU level and in daily cluster management. This reconciliation of two logics does not prioritize sectors or individual forms, but new activities generating structural changes. 

117 Grubb et al proclaim a policy mix of horizontal policy instruments to enhance innovation with vertical innovation policies targeting public goods (reference 54). The EU Policy Framework for clusters describes the same logic in the updated Smart Specialisation Strategy. Interview 8 describes the same procedure on a micro level. I advocate a new cross-cutting cross-sectorial partnership of the EU Urban Agenda to work in the same manner.

A systemic approach integrating different policies under a joint strategy. This method breaks out "policy silo-patterns" overcoming sectoral, regional and departmental silos, which promote vertical measures (that e.g. target only one industrial sector and neglect the potential that develops from cross-sectoral collaboration) by horizontally integrating with other "policy silos" through the development and implementation of joint measures under a joint strategy. <sup>118</sup> Becker et al advocate reallocation of funds across target regions (reference 50). The EU Policy Framework for clusters advocates holistic strategies under the New Industrial Policy. The interviews (2, 5) with the Commission revealed that it is a challenge to know which sector is the right one to support. A systemic approach, I claim, should feed into the RIS 3 strategies, involving clusters.

*Involving dynamism*<sup>119</sup> relying on direct experience of actors at different levels: The EU Policy Framework for clusters advocates stronger use of thematic specialisation platforms, which

\_

<sup>&</sup>lt;sup>116</sup> Commission Communication (2014) Factsheet on National/Regional Innovation Strategies for Smart Specialisation RIS 3

<sup>&</sup>lt;sup>117</sup> "Advances in the Theory and Practice of Smart Specialisation Strategy" (2017), Slavo Radosevic, Adrian Curaj, Radu Gherghiu, Liviu Andreescu, Imogen Wade, Academic Press, Elsevier p 20

<sup>118</sup> https://ec.europa.eu/growth/industry/policy/cluster/observatory/cluster-policy/stress-test\_pl

<sup>&</sup>lt;sup>119</sup> Commission Communication (2014) Factsheet on National/Regional Innovation Strategies for Smart Specialisation RIS

employ a form of so-called "experimentalist governance", advocated by the EU Policy Framework on Updated Smart Specialisation Platform. By introducing an inclusive and interactive bottom up process called 'entrepreneurial discover process' - based on consultations between firms, regions, countries and the Commission - these partners establish objectives and metrics to gauge their achievements, thus addressing the hot topic of monitoring (Interview 2, 6). Polozhentseva and Klevtso show in sequence the formation of cluster policies on a regional level and identify indicators of cluster competitiveness (reference 58). This dynamism helps to adopt the EU Concept of 'Innovation Union' to local contexts. <sup>120</sup> Simply said, and in conjunction with the logic inherent in EU Policy Framework on Start-Up Scale up, the rationale is about co-creation with a the quadruple helix approach (Interview 8) <sup>121</sup> and agreeing on monitoring principles (Interview 6). I advocate this method for an update of the Interreg Programme.

### Answer to the Research Question:

Cluster professionals no doubt consider EU's cluster policies getting better all the time in an endeavour to become an "Innovation Union". The horizontality of cohesional endeavours and the verticality of new logics characterize the intersection. Here lies the key to align EU's cluster policies to the EU's movable target conceptualizing an 'Innovation Union', where "great ideas are turned into products and services".

My research offers the Commission three concrete tools to enhance cluster policies with the potential to unleash growth by focusing on the three policy gaps I identified. The Commission acts encompassing, open minded, perceptive, my interviewees say and I agree, with the intention to present my suggestions on the policy gaps identified.

<sup>&</sup>lt;sup>120</sup> "Advances in the Theory and Practice of Smart Specialisation Strategy" (2017), Slavo Radosevic, Adrian Curaj, Radu Gherghiu, Liviu Andreescu, Imogen Wade, Academic Press, Elsevier p 347

<sup>&</sup>lt;sup>121</sup> Committee of the Regions Quadruple Helix Approach

https://cor.europa.eu/en/documentation/studies/Documents/quadruple-helix.pdf'

### **Bibliography**

### **European Union Communication:**

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions SEC (2010) 1161

Commission Communication of 06/10/2010 COM (2010) 553 final "Regional Policy contributing to smart growth in Europe 2020"

Communication from the Commission COM (2010) 546 final Europe 2020 "Flagship Initiative 'Innovation Union"

Commission's High Level Group Strategy Group on Industrial Technologies, 23 February 2018

"Re-Finding Industry", Report, Conference Document

European commission AI Strategy <a href="https://ec.europa.eu/growth/tools-databases/dem/monitor/tags/ai-strategy">https://ec.europa.eu/growth/tools-databases/dem/monitor/tags/ai-strategy</a>

European Commission Cohesion Policy <a href="http://ec.europa.eu/regional\_policy/en/policy/what/glossary/c/cohesion-policy">http://ec.europa.eu/regional\_policy/en/policy/what/glossary/c/cohesion-policy</a>

European Commission "Editorial Smart Specialisation 2.0 newsletter", Peter Berkowitz, Head of Unit for Small and Sustainable Growth, DG Regio 26/02/2018

European Commission "EU Cluster Observatory Report, European Cluster Trends, Executive Summary", February 2015, prepared by: Kincsö Izsak, Technopolis Group, Gerd Meier zu Köcker, VDI/VDE-IT http://ec.europa.eu/growth/smes/cluster/observartory

European Commission 'European Cluster Panorama 2016', Report prepared by Christian Ketels and Sergiy Protsiv, Center for Strategy and Competitiveness, Stockholm School of Economics

 $\underline{\text{http://ec.europa.eu/growth/industry/policy/cluster/observatory/cluster-mapping-services/cluster-panorama\_sv}$ 

European Commission "European Union Innovation Flagship Initiative" <a href="https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-brochure\_en.pdf">https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-brochure\_en.pdf</a>

European Commission (2012): "Guide to Research and Innovation Strategies for Smart Specialisations (RIS 3)"

http://ec.europa.eu/regional\_policy/sources/docgener/presenta/smart\_specialisation/smart\_ris3\_2012.pdf

European Commission Innovation Policies <a href="https://ec.europa.eu/growth/industry/innovation/policy\_sv">https://ec.europa.eu/growth/industry/innovation/policy\_sv</a>

European Commission\_"Interim Evaluation of the COSME Programme, Final Report", by Technopolis Group, 14 Dec 2017

https://ec.europa.eu/growth/smes/cosme/programming-monitoring-evaluation\_en

European Commission "National /Regional Innovation Strategies for Smart Specialisation (RIS3)" (2014) Factsheet Cohesion Policy

European Commission (2015): "Perspectives for Research and Innovation Strategies for Smart Specialisation (RIS3) in the wider context of the European 2020 Growth Strategy"

European Commission "Smart Specialisation and Europe's Growth Agenda", Regional and Urban Policy April 2014

European Commission "*Urban Agenda for Europe*" <a href="https://ec.europa.eu/futurium/en/urban-agenda-eu/what-urban-agenda-eu">https://ec.europa.eu/futurium/en/urban-agenda-eu/what-urban-agenda-eu</a>

European Cluster Collaboration Platform – First European Cluster Policy Forum <a href="https://www.clustercollaboration.eu/news/first-european-cluster-policy-forum-sets-agenda-discussions-eu-countries">https://www.clustercollaboration.eu/news/first-european-cluster-policy-forum-sets-agenda-discussions-eu-countries</a>

EuropeanUnion Committee of the Regions: Using the Quadruple Helix Approach to accelerate the Transfer of the Research and Innovation Results to Regional Growth <a href="https://cor.europa.eu/en/documentation/studies/Documents/quadruple-helix.pdf">https://cor.europa.eu/en/documentation/studies/Documents/quadruple-helix.pdf</a>

Interreg Europe Programme Manual December 13 December 2016 <a href="https://www.interregeurope.eu/fileadmin/user\_upload/documents/Call\_related\_documents/Interreg\_Europe\_Programme\_manual.pdf">https://www.interregeurope.eu/fileadmin/user\_upload/documents/Call\_related\_documents/Interreg\_Europe\_Programme\_manual.pdf</a>

Interreg Europe <a href="https://www.interregeurope.eu/about-us/what-is-interreg-europe/">https://www.interregeurope.eu/about-us/what-is-interreg-europe/</a>

Interreg Europe, Policy Brief: 20 Dec 2016 "The role of clusters on supporting Smart Specialisation Thematic Platforms"

https://www.clustercollaboration.eu/sites/default/files/news\_attachment/policy\_brief\_clusters\_and\_thematic\_platforms\_2.pdf

Interreg project Northern Connection http://northsearegion.eu/northern-connections/

OECD: Cluster Policy and Smart Specialisation <a href="https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interactionsforinnovation/clusterpolicyandsmartspecialisation.htm">https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interactionsforinnovation/clusterpolicyandsmartspecialisation.htm</a>

OECD: Clusters and Smart Specialisation <a href="https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interaction for innovation download 2018-01-24">https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/interaction for innovation download 2018-01-24</a>

OECD: Innovation Imperative, October 2015 <a href="https://www.keepeek.com//Digital-Asset-Management/oecd/science-and-technology/the-innovation-imperative">https://www.keepeek.com//Digital-Asset-Management/oecd/science-and-technology/the-innovation-imperative</a> 9789264239814-en#page5

EPRS European Parliamentary Research Service "*Understanding Innovation*", briefing February 2016, author: Vincent Reillon, Members' Research service PE 573.968

### **Articles:**

Amos Zehavi, Dan Breznity "Distribution sensitive innovation policies: Conceptualization and empirical examples", Research Policy 46 (2017) 327-336

Christian Ketels, Harvard Business School, Boston MA, USA, "European Clusters" in Structural Change in Europe 3 – Innovative City and Business Regions", Hagbarth Publications 2004

Cristobal Casaneuva, Ignacio Castro, José L. Galán "Informational networks and innovation in mature industrial clusters", Journal of Business Research 66 (2013) 603-613

David R. Thomas, School of Population Health "A general inductive approach for qualitative data analysis" University of Auckland, August 2003

FrankMcDonald, Qihai Huang, Dimitros Tsagdis & Heinz Josef Tüselmann (2007) "Is there Evidence to Support Porter-Type Cluster Policies?", Regional Studies, 41:1, 39-49

Franz Tödtling and Michaele Trippl "One Size fits All? Towards a differentiated regional innovation policy approach", Science Direct, Research Policy 34 (2005) 1203-1219

Ismail Hakki Eraslan, Cem Cagri Donmez, Mustafa Kemal Akgul "*The Incoming Paradigm Shift with Globalization and Clustering Approach*", Science Direct, Procedia – Social and Behavioral Sciences 235 (2016) 101-109

Jens Eklinder-Frick and Lars-Johan Åge, "Perspectives on regional innovation policy – From new economic geography towards the IMP approach", Industrial Marketing Management 61 (2017) 81-92

Jürgen Janger, Torben Schubert, Petra Andries, Christian Rammer Machteld Hoskens "*The EU Innovation Indicator: A step forward in measuring innovation outputs and outcomes?*" in Research Policy 46 (2017) 30-42

Kristian Road Nielsen, Lucia A. Reisch, John Thogersen "Sustainable user innovation from a policy perspective: a systematic literature review", Journal of Cleaner Production 133 (2016) 65-77

Robert Kaiser & Heiko Prager (2004) "Managing diversity in a system of multilevel governance: the open method of co-ordination in innovation policy", Journal of European Public Policy 11:2, p 249-266

Maria Angeles Diez (2001)" The Evaluation of Regional Innovation and Cluster Policies: Towards a Participatory Approach", European Planning Studies 9:7, 907-923

Massimi Egidi, "Schumpeter's picture of economic and political institutions in the light of a cognitive approach to human behaviour", 4 September 2015, Regular Article, J Evol Econ (2017) 27:139-159, Springer

Mercedes Delgado, Michael E. Porter, Scott Stern "Clusters, convergence, and economic performance", Research Policy 43 (2014) 1785-1799

Michael Grubb, Will McDowell, Paul Drummond "On Order and Complexity in innovation systems: Conceptual framework for policy mixes in sustainability transitions", Energy Research & Social Science (2017) http://dx.doi.org/10.1016/j.erss.2017.09.016

Per Lundequist and Dominic Power (2001) "Putting Porter into Practice? Practices of Regional Cluster Building: Evidence from Sweden", European Planning Studies, Vol 10, No 6, 2002

Tom Broekel, Dirk Fornahl, Andrea Morrison (2015) "Another cluster premium: Innovation subsidies and R&D collaboration networks", Research Policy 44 1431-1444

Sascha O. Becker, Peter H. Egger and Maximilian von Ehrlich (2012) "Too much of a good thing? On the growth effects of the EU's regional policy", European Economic Review 56 (2012) 648-668

Sledzik, Karol 'Schumpeter's view on innovation and entrepreneurship", SSRN Electronic Journal, April 2013

https://www.researchgate.net/publication/256060978\_Schumpeter%27s\_View\_on\_Innovation\_and\_Entrepreneurship

Yulia Polozhentsevan and Maria Klevtsova "*Instruments on Development of Cluster Policy: Stages, Models International Practice*" 22<sup>nd</sup> International economic Conference – IECS 2015; Science Direct, Procedia Economies and Finances 27 (2015) 529-537

### **Books**

"Advances in the Theory and Practice of Smart Specialisation Strategy" (2017), Slavo Radosevic, Adrian Curaj, Radu Gherghiu, Liviu Andreescu, Imogen Wade, Academic Press, Elsevier

"Challenging the Innovation paradigm" (2012), edited by Karl-Erik Sveiby, Pernilla Gripenberg and Beata Segercrantz, Routedge Tayolor and Francis Group, New York, London

"Diffusion of Innovations" (2003) 5<sup>th</sup> Ed, Everett M. Rogers, Free Press a division of Simon&Schuster Inc.

"Discourse Analysis as Theory and Method" by Marianne Joergensen and Louise Philips (2002), Sage Publications London

"Doing Research in the real world" by David E. Grey, (2014) Sage Publications, London p
192

"Innovation System Frontiers – Cluster Networks and Global Value" Brian Wixted (2009), Springer Verlag Berlin Heidelberg

"Regional Innovation and Cluster Policies in the New and Old Economy' Chapter 1 in 'Clusters in Automotive and Information & Communication Technology' (2011) Editor Paul J.J.Welfens, Lucius € Lucius Verlagsgesellschaft mbH, Springer

"Methods for Text and Discourse Analysis, Objective Hermaneutics", (2007) Titscher et al, Sage Publications London

"Spatial Knowledge Spillovers within and between European Regions – A Meta-Analysis' by Warda, Peter (2015), Gråsjö Urban, Karlsson Charlie: Knowledge, Location and Trade, Jönköping International Business School, Jönköping University, JIBS Dissertation Series No. 101 Dissertation Peter Warda

### Other:

Smartspecialisering" Västra Götaland www.vgregion.se/smartsspecialsiering

Report from Västra Götalandsregion "Återrapportering uppdrag dnr 2016-02210" dd 2018-01-16

Questionnaire from the Estonian Presidency, Urban Agenda for the EU, Survey on new Priority Themes and Partnership, 13 December 2017, Filled in by: Tilman Buchholz, Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Ger

# APPENDIX

# A1 - A5 Interviews

# A 1: Interview Logbook

Interviews	Number Inerviews	Affiliation	Date of Interview	Mode of Inteview	Length	Source of Contact	Follow-Up
Lars Bern, BRG	1	Business Region Göteborg AB, Area Manager Energy and Innovation	Feb 9, 2018 at 14:00	In person, Göteborg, questions sent before- hand	35 minutes	My colleaque	Indirectly, embedded in discussion on Interreg project
Dr S. Tokarski, COM	2	"DG GROW, Director of Innovation and Advanced Manufacturing, Directorate General Inter- nal Market, Industry, Entrepreneurship and SMEs	Feb 16, 2018 at 10:00	Telephone, questions sent beforehand	25 minutes	Dr Tokarski delive- red relevant speach at GrowYour Region conference in Valence in November 2017. Inte- grated in my work with Interreg.	Yes, Dr Tokarski sent sub- stantial additional info. I sent him with the author's consent a copy of the official letter to DG Regio on the proposal new Urban Agenda partnership
Hanna Blomdahl, VGR	3	Västra Götalandsregion, Regionutvecklare	Feb 16, 2018 at 13:00	In person, Göteborg, questions sent before- hand	25 minutes	Recommendation of my boss	Yes, Hanna sent reports by mail
Maria Strömberg, BRG	4	Business Region Göteborg AB, Director Cluster & Innovation	Feb 16, 2018 at 14:30	In person, Göteborg, questions sent before- hand	25 minutes	Business Region Göte- borg AB, my boss	All the time
Dr U. Engelmann, COM	5	DG Grow, Head of Unit, Clusters, social economy &entrepreneurship	Feb 22, 2018 at 17:00	In person, at DG Grow Brussels, questions sent beforehand	25 minutes	Dr Engelmann well known speaker at cluster conferences	Yes, but on another topic of relevance to VGR
Lucia Seel, expert	6	International Cluster Expert	Feb 21, 2018 at 09:00	In person, Brussels, questions sent before- hand	45 minutes	Network partner from many different occasions	Yes, but then I decided not to pursue my question but changed the angle
Kaspar Nielsen, DK	7	Projektchef, Cluster Excel- lence Denmark	March 16, 2018 at 10:00	Skype, questions sent beforehand	40 minutes	Collaboration partner from cluster conferences	Yes, Kaspar sent additional info by mail
Erik Behm, BRG	8	Business Region Göteborg AB,cluster manager IT Center Väst, board member GREAT (IT infrastructure) and MWR (microwave)	March 16, 2018 at 14:00	In person, Göteborg, questions sent before- hand	35 minutes	My colleaque	Yes, discussion on some content
Olof Sönderskov, DK	TEST 0	Region Syd Danmark DK, Chefudviklingskonsulent Regional Udvikling, Erh- vervsudvikling	Jan 24, 2018 at 13:00	Telephone, questions sent beforehand	30 minutes	Colleaque in Interreg project Northern Con- nection	Sent a thank you

One request for interview was not answered.

### A 2: Interview Questions

What is your definition of innovation?

What is your definition of the concept of cluster?

What is your definition of "EU cluster policies?"

To what extent do you agree that EU cluster policies are a valuable tool to enhance innovation? Why? How?

Do the policies have an effect? Why? How?

Have you met any failures /'wrong' cluster policies?

What is the greatest challenge creating cluster policies? At EU level.

Is the ECCP a tool for the uptake of ideas, i.e. how does the Commission know what the market/clusters need?

Is there anything regarding the uptake of ideas that you would you like to improve?

Do you see a need to modify RIS strategies to contain a mandatory chapter on internationalisation?

What do you think of suggesting a new EU Urban Agenda Partnership **on** "urban-rural functional regions as motors of Europe's competitiveness and cohesion"?

### Additional question to the Commission: (interviews 2, 5)

What is the greatest challenge to obtain concrete examples from innovation policies?

Could you describe the uptake of ideas, i.e. how does the Commission know what the markets / clusters need?

Who are the organizations / people that bring up the ideas? Bottom-Up?

How is the uptake of ideas transferred into new regulations?

What kind of regulations? What is the process?

Is there anything regarding the uptake of ideas that you would like to improve?

What do think of suggesting a new EU Urban aGenda Partnership on "urban-rural functional regions as motors for Europe's competitiveness and cohesion?

How do you look upon the overlap between innovation policies and the Interreg programme (which we mentioned numerous times at the cluster conference in Valencia), because Interreg is so much easier to handle than Horizon?

Who at the Commission wants to receive our policy recommendations for Interreg program "Northern Connections" and UIA program "FED Fossile Free District", which both have an explicit element of innovation and a work package on lobbying to be conducted late 2018?

# A 3: Content Analysis Interview Questions on 'Regional Development'

Category	Subcategory	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5	Interview 6	Interview 7	Interview 8
Regional development	Regional development	Yes, we have seve- ral projects such as FED (Fossile free energy districts at Johanneberg Science Park)	We want to let grow what the market created. We put entrepre- neurs in direct context	Monitoring of strong branches is important to make right con- clusions	Very strong growth on our region. We see that clusters play an important role	Good examples that emerge from cross-clustering	Achieved by clusters	Very much so. Dif- ferent picture 2013 before we formed our cluster policies	Achieved by clusters, there are regional clusters that in fact are global, such as GIS in Gävle
	Regional policies	No cluster policies in our region	We believe in creating part- nerships rather than clusters	No cluster poli- cies at city level	We need to im- prove collection of info and trans- fer to the whole organisation of "owners"	Enable people to find each other. DG Regio has launched pilot project for regions in industrial transition	What happens in the regions in not Europe!	Regional cluster policies are defined.	Not aware of such regional cluster policies. Clusters do profit of working with organi- zations like ourselves (BRG), so this IS regio- nal cluster policy
	Growth Effect	Not enough done. No incentive to work with strong clusters in the Interreg area for instance	Much more money clusters speed dating needed	We have strong growth in our region	Achieved by co-creation, round table	Try to get views across the regions on what they need. Cluster Internationa- lisation Program is a tool	Polices can be regio- nal, differnt ways to measure impact.	Yes, visible, measurable.	Depends partly on cluster manager. Needs application knowledge, process and methods knowledge, coaching knowledge and being en- trusted by the companies
	Competitive Power	Not enough incentives to work cross-cutting regions	Speed-dating with 200 clusters at recent cluster conference is a tool to create competitive power	Certain under- standing exists but no analysis conducted of value chain out of our regi- on. However, "relatedness" and connection to triple helix is analysed	Good relationships inbetween and partnerships with various kind of actors needed	Achieved by cross-sectorial colla- boration. European Observatory for Cluster provides analysis	Regions that have developed cluster policies continue to develop	We enhance competitive power by matching partners who can answer calls together, such as the INNOSUP	The microwave cluster has always welcomed members from other countries. When they had a cluster manager, they were much more active internationally
	Multilevel governance	Many partners involved in the region for multi- level governance, dialogue with VGR works fine and on a regular base. Horizon too heavy, no business involved	Too many dif- ferent regional innovation eco systems. Cluster Observatory gives analysis	We have a continous and structured dialo- que with actors and stakeholders at different levels	Very elaborated and well-function in our region	Bringing different actors at one table. Co-creation of pro- cess important. Many differnt tools and dialogues with MS and ministries all the time. New European Cluster Policy Forum	How much intervention from Europe can be brought to the national or regional level? Europe can only fund the art of collabration between actors. Europe's role to interact with the national and regional levels	Very much so. Thourouhgly documentend in a strategy paper involving all levels of stakeholders. Regular meetings inbetween and with the clusters.	VGR has one broadband coordinator and provides meeting place for the entire triple helix on this technical field of expertise. Great example on how to intervene in the right way. VGR thinks right. VGR is doing good things, but they don't talk about it.

# A 4: Content Analysis Interview Questions 'Innovation'

Category	Subcategory	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5	Interview 6	Interview 7	Interview 8
Innovation	Driver of Innovation	Cluster policies are drives of innovation, as they stimulate production of new innovation	Demand side/ supply side, public procure- ment	We have five Sciene parks in the county Västra Götaland which all drive innovation	Clusters are innovation drivers, but so is even public procurement. Much remains to be done there	Happens in the value chain. Cross-sectorial has highest potential, then cross-regional and international interaction	Public sector and the industry sector. Concentrate funding on several strong sectors rather than spreading it out	Our strategey describes clearly that cluster and networks are drivers of innovation natio- nally, regionally and locally	Vinnova is a driver of innovation. The technical development of 5 G was promoted by Centers of Excellence like CHASE (Antenna) and GhZ (Gigahertz)
	Innovation Policies	Funding tools are a tool for innovation policies	We need one innovation eco system for Eu- rope, not all the different regional ones. Apply value chain appracch. Link between RIS 3 and SSS to be enhanced	More innovation ecosystems like Science Parks would be bene- fitial	Clusters have to be connected to innovation eco systems	Further reach-out, regional authorities should be more aware of the potential of clusters! We hear from clusters that regional authorities are not aware	EU cluster policies enable the transfer of know-how on policy development from one country to another. Important to support this inte- raction. Clusters are involved in policy making through polls	We have a strategy with five focus areas: clusters as bridge-builders to research, as driver of internationalisa- tion, as driver of the regional eco-system, continous professio- nalisation of clusters and cohesion in cluster policy and structure	Very good that VINN- OVA involves SMEs. The innovative Gaming Cluster in our region is a result of VGR's and policies and priorities
	Innovation Output	Financing, access to new markets, stimulation of production of new innovation	Cross-cutting clusters have best innovation output	We have very comprising reports. Our office in Brussels analysed ca 20 focal areas and compared them to our the areas of strength in our region. So we know where to get innovation output	We continous- ly benchmark and analyse not only innovation output, but many other parameters	Cross-sectorial most difficult, which is the right sector to foster?	Monitoring impact is a hot topic now. Excellence can be an impact	Yes, we have very many measurabel indicators, at least 2000 enterprises have annually delve- loped new innova- tions. Appropriate regional distribution that reflects policy benefits	We need dedicated com- panies, eager to support the bodies of multilevel governance. Be aware that there is different innovation output coming from actors like science parks, incuba- tors, clusters. They play different roles

# A 5: Content Analysis Interview Questions

# 'Are EU cluster policies a tool to enhance Innovation?'

Category	Subcategory	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5	Interview 6	Interview 7	Interview 8
Clusters	Cluster Policies	Cluster policies at a very high level - too high?	Make the clusters do something. Group firms, sufficient scale. Link policies to clusters, not projects. Failure to support weak clusters	We go from cluster policies to innovation eco-systems	Strategies to facilitate cross border collaboration	Support in different phases. COM has 3 steering documents for cluster policy framework. Place based approach. Make sure there is an up-take for cluster policies	Cluster policis create cluster initiatives. Europe has access to knowledge and Europe is the driver. 3 pillars for cluster policies (COM policy framework). Can be wrong at regional level- set up, pay and close	We have a clear and defined division of responsibilities for cluster and network policies on national, regional and local level. All regions prioritise the cluster policy as an important instrument for RIS 3	Labelling like bronce/ silver/gold is real- ly good. Makes me think in new ways and improve my methods. Helps me understand the different ways of connecting member to a cluster, if clusters are vertical or technological. Big difference. Shows how important RIS 3 and clearly defined areas of strength are
	Knowledge Transfer Process	EU is highly aware of clusters and their needs	Impact assess- ment from calls. Create part- nerships. Living labs. Smart Cities have high potential	We have no SSS on a regional level, only on a national	Danmark great at organising cluster knowledge transfer	Happens in the value chain	By forums, discussion with policy makers at all levels, ECCP platform. To very high degree platform for knowledge transfer at all levels. Difficult to keep balance "what is in it for me"	Knowledge Transfer Process by regular meetings with all stake holders, even the ministries, invol- ving the clusters	The Digital Agenda at VGR enables knowledge transfer. We have triple helix in the whole value chain. We all have the same goal but represent different groups. We support actors in society. Multilevel governance has an important role to promote the knowledge transfer process
EU cluster policies tool to enhance innovation	same category	Of course! Absolutely. The innovation we are creating in the pre- sent FED project would not happen without cluster policies	Platforms coming from SSS. Re- gions chose RIS 3, COM engages with clusters for the SSS.	We give Funding for collabortion projects	Available at regional level, focus on impact	Essential tool, recognized by Indu- strial Strategy	Without any doubt! They have pos- sibility to access knowledge in each country. DG Grow makes good job. 3 guiding documents	Yes! We have many proofs.	Cluster policies facilitate working systematical- ly and how to adress important challenges and opportunities. They are are tool to foster innovation

Interviews
Interview 1 Lars Bern, BRG
Interview 2 Dr Tokarski, COM
Interview 3 Hanna Blomberg, VGR
Interview 4 Maria Strömberg, BRG

Interview 5 Dr. Engelmann, COM Interview 6 Lucia Seel, expert Interview 7 Kaspar Nielsen, DK Interview 8 Erik Behm, BRG

### A 6: Letter Suggestions to EU Commission



## Free and Hanseatic City of Hamburg Ministry of Economy, Transport and Innovation

Ministry of Economy, Transport and Innovation, PO Box 112109, 20421 Hamburg

Director-General Marc Lemaître Directorate General for Regional and Urban Policy European Commission B-1049 Bruxelles/Brüssel Dr. Rolf-Barnim Foth

Alter Steinweg 4 20459 Hamburg Phone: +49 40 428 41 - 2617/2618 Fax: +49 40 427 94 - 1370 E-Mail: Rolf-Barnim.Foth@bwvi.hamburg.de 1. März 2018

### Dear Director-General,

I am writing you in my function as coordinator of a possible Urban Agenda Partnership on "urban-rural functional regions as motors of Europe's competitiveness and cohesion". As this Partnership, if it receives the support of EU Member States, will not start until 2019 and therefore come too late for submitting proposals for the next EU funding period, I would like to draw your attention to three conclusions of the discussions among preliminary members of this potential Partnership. These are the OECD, the organisation of European Metropolitan Regions METREX, the German counterpart IKM and a number of European metropolitan areas and business regions, districts (incl. target 1 ones) as well as chambers of commerce and business institutions, a cluster organisation and a university. The Federal Republic of Germany has just submitted our proposal for a new Partnership to stakeholders within the Urban Agenda.

All partners share the vision of a Europe whose ability for innovation and whose competitiveness on a global scale will be driven and assured by a long-term cooperation between and among Europe's big or small functional city and business regions.

This vision finds its background in both the fall of the Iron Curtain (i. e. opening of borders towards the east, enlargement of the EU, foundation of WTO and abolition of trade barriers) and the emerging internet age, which have exposed Europe's urban and rural areas to more and direct global competition than ever before. Hard and soft locational factors have become fully transparent and, as a consequence, the sub-state level had and still has to better organise and to position itself in a new and more challenging way. Due to limited critical mass, most European cities remain too small to be visible and competitive on a global scale. Therefore, many have started joining forces with their urban and rural

neighbours: They are setting up joint governance structures in their functional regions to enhance competitiveness as well as the pace of innovation and in order to achieve or to maintain their national, European or global visibility. All of these metropolitan areas, regions or business regions are cohesive systems in themselves, where urban and rural partners work on a win-win basis and across administrative borders.

Nevertheless, most of these functional regions are still comparatively small and, therefore, cities and first functional regions have started bilateral or multilateral cooperation with other innovative cities or functional areas, often across large distances and national borders. Cooperation is based on long-term agreements. Examples are treaties between Flemish Brabant and Rhine-Neckar Metropolitan Region, between Hamburg Metropolitan Region and Greater Copenhagen and Skåne Region, between Hamburg and Groningen or among the 42 European aircraft regions (www.eacp-aero.eu). This is at the same time an example of the cooperation among well and less structured European regions.

These are the suggestions we would like to submit for further consideration of the EU Commission:

- Long-term transnational cooperation between or among functional regions should be encouraged by start-up funding similar to the cross-border facility INTERREG A. The political will for a long-term engagement should be formally agreed on e.g. by concluding a contract or setting up an EGTC or in another suitable manner.
- 2. A more regionalised statistics on transnational exchange of goods and services in the EU would be helpful to make inter-regional relations visible. This knowledge would allow intensifying and broadening relations. So far only data on national level is available. This is also a recommendation in the very recent ESPON - SPIMA report.
- 3. All RIS 3 strategies should have a chapter on internationalisation and European cooperation. This suggestion was made by renewable energy cluster organisations of the above mentioned potential Urban Agenda Partners, who are engaged in the INTERREG North Sea project "Northern Connections". This project aims at interregional cooperation with focus on renewable energy clusters. Clusters complained that without such a chapter they were lacking the explicit mandate as well as financial resources made available for European cooperation.

The rural and urban members of Hamburg Metropolitan Region and this potential new Urban Agenda Partnership welcome the fact that EU Member States have agreed on paving the way towards new official Partnerships as an opportunity of further connecting the EU Regional and Cohesion Policies with urban-rural cooperation and functional regions.

We hope for your and the EU Commission's support in the further process and in this long-term approach to invite functional regions to actively contribute to Europe's cohesion policy and to Europe's competitiveness simultaneously. We would welcome the European Commission's further attention to urban-rural linkages, e.g. by drafting new programmes like the Urban Innovative Actions and, furthermore, by enhancing the role of urban-rural partnerships in the future cohesion policy.

I remain at your and your staff's disposal for any further questions and discussion.

With best regards.

Yours sincerely,

Head of Directorate

for Northern German Cooperation

Poly-Baruin tota

and Regional Policy

### A 7: Letter Riksdagsinformation on "Policy"

### **Ulrike Firniss**

Från: Mia Hedelius <mia.hedelius@riksdagen.se> för Riksdagsinformation

<riksdagsinformation@riksdagen.se>

Skickat: den 2 februari 2018 16:11

Ulrike Firniss

Ämne: Ang. Definition EU Policy?

Неј,

Tack för ditt brev!

Ett policy dokument brukar ses mer som en riktlinje eller form av avsiktsförklaring för att styra beslut och uppnå önskade mål. En EU-policy borde alltså inte vara något bindande beslut. Men det är svårt att uttala sig om utan att veta vilket beslut det handlar om. På EUR-lex finns en sammanfattande sida över EU-rättens alla dokumenttyper: <a href="http://eur-lex.europa.eu/content/tools/TableOfSectors/types">http://eur-lex.europa.eu/content/tools/TableOfSectors/types</a> of documents in eurlex.html. Här finns inte policy med.

Nu är vi som arbetar på Riksdagsinformation inte jurister så jag kan inte uttala mig exakt, så min rekommendation är att du kollar med en EU-rättsjurist.

På EUR-lex som är EU:s rättsdatabas finns all lagstiftning uppdelad i tre delar:

- Bindande rättsakter (förordningar, direktiv och beslut)
- Icke-bindande rättsakter (resolutioner och yttranden)
   Övriga rättsakter (t.ex. EU-institutionernas interna förordningar och EU:s handlingsprogram) http://eur-lex.europa.eu/collection/eu-law/legislation/recent.html

Min gissning är att policies hamnar i de två nedersta kategorierna.

Med vänlig hälsning

Mia Hedelius Riksdagsinformation Kommunikationsavdelningen Riksdagsförvaltningen

020-349 000

riksdagsinformation@riksdagen.se www.riksdagen.se

```
>Hej,
>Här kommer en fråga där google inte ge ett klart besked:
>Hur definieras EU policy?
>l vilken omfattning är en sådan lagligt bindande?
```

### Appendix Reference

### Urban Agenda for the EU

# **Survey on new Priority Themes and Partnerships**

13 December 2017

Date:	12 January 2018					
Member State or Organisation:	Germany					
Filled in by:	Tilman Buchholz, Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety					
Telephone:	+49 30 18305 6161					
E-mail:	Tilman.buchholz@bmub.bund.de					
1. The Pact of Amsterdam states that [The] list [of Priority Themes] may be reviewed by the DG meet by consensus and will be revised by the Informal Meeting of Ministers responsible for Urban Matter. At the UDG and DGUM meetings, a substantial number of members have indicated that they would like to have additional themes under the Urban Agenda for the EU. Several themes have been forward. On the other hand, several members have also expressed concern at the workload current Partnerships already entail, and have stated that no new Partnerships should be start before one or more of the 'old' ones have stopped. At DGUM (Tallinn, 24 October 2017) no delegate was opposing to open the discussion process about launching new themes and partnerships.						
taken without the agreement of the D	state of affairs. No conclusions will be drawn and/or decisior GUM.					
	nes/Partnerships can be <i>added to the current twelve</i> (i.e. befornished the implementation of their Action Plans)?					
YES						
NO	Х					
If YES, please indicate below what nev	v Priority Themes/Partnerships you would like to see added:					
	position/proposal (incl. justification of a need, e.g. evidence value added, need for joint multi-level intervention); inter-					

linkages or coherence with Territorial Agenda 2020 and Europe 2020 strategy; relevance to EU policy fields, etc):

Further remarks and/or comments you would like to add:

2) If NO, do you agree that new Priority Themes/Partnerships can be added only once one or more Partnerships have finished implementation of their action plans (so a maximum of twelve operational Partnerships at any time)?

YES

X

NO, there is no need to add any new themes

□

If YES, please indicate below what new Priority Themes/Partnerships you would like to see added:

"Partnership on urban-rural functional regions as motors of Europe's competitiveness and cohesion"

Please elaborate the content of your position/proposal (incl. justification of a need, e.g. evidence from Europe-wide research, EU level value added, need for joint multi-level intervention); inter-linkages or coherence with Territorial Agenda 2020 and Europe 2020 strategy; relevance to EU policy fields, etc):

European cities and regions are being challenged by more international and global competition than ever before and therefore are compelled to improve their hard as well as soft locational factors. This competition does not take place among administrative entities, but among "business regions" and their corresponding regional labour markets. Competitiveness is closely linked to their size ("critical mass"), visibility and their capability to innovate.

Many cities have shifted cooperation with their immediate neighbourhood from a more spatial and public transport oriented perspective towards an economic one joining forces with their neighbours. United, they have begun organising their often far-reaching "functional urban areas" under the umbrella of various types of formal or informal "governance systems". In these urban-rural cooperative systems cohesion and competitiveness are two sides of the same coin. Furthermore, such initiatives automatically support national governments and the EU in their efforts to establish reliable economic structures as a precondition for prosperity.

Europe's existing or emerging "metropolitan areas/regions" or "business regions" etc. are still fairly small in global terms and, therefore, have to cooperate and seek alliances – as a rule across national borders – with their European counterparts. The success of such "twinning" policies depends on a long-term approach. Setting up and maintaining intensive and sustainable relations represent a major challenge to European functional regions. Therefore, beyond the INTERREG Aareas, only few functional regions seem to have started long-term cooperation with European partners.

The success of cross-border cooperation of functional regions has a clear European dimension. It supports and complements the established instruments of EU regional policy of the current

funding period, e.g. the "Integrated Territorial Investments" (ITI) and the "Community led local development" (CLLD). Urban-rural partnerships provide a suitable frame for the further development of those instruments and for an efficient regional cooperation. National as well as European competitiveness depends largely on the performance of such functional regions in research and development, in setting up cluster policies, attracting qualified workforce or coping with challenges like digital transition, climate change or circular economy, which no longer can be dealt with within the administrative boundaries of a city alone.

Together with regional, national and European stakeholders this Urban Agenda Partnership is to enquire how such region-building processes can be stimulated and where assistance could be given. This Partnership initiative is in line with the Territorial Agenda 2020 and Europe 2020 strategy as well as with the European Parliament Resolution of 9 September 2015 on the "Urban dimension of EU policies" (2014/2213).

Further remarks and/or comments:

So far this initiative is supported by OECD, METREX, IKM – organisation of metro regions in Germany, EUROCITIES metropolitan areas working group, Hamburg Metropolitan Region, Business Region Aalborg, Business Region Gothenburg, Metro Region Gdansk-Sopot-Gdynia, Nantes Métropole, Groningen, Prignitz (Brandenburg/D), Renewable Energy Cluster Hamburg Metro Region.

The Free and Hanseatic City of Hamburg, represented by the Hamburg Ministry of Economy, Transport and Innovation, will be responsible for coordination of this proposed partnership.

(excerpt, original document touches upon other questions)