NATIONAL RESEARCH UNIVERSITY

Modern industrial policy toolkit: insights from the Russian cluster policy experience

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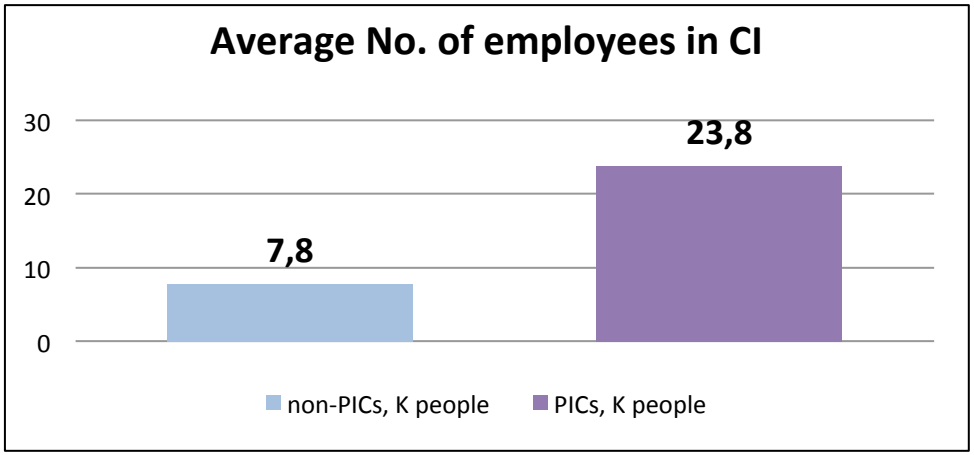
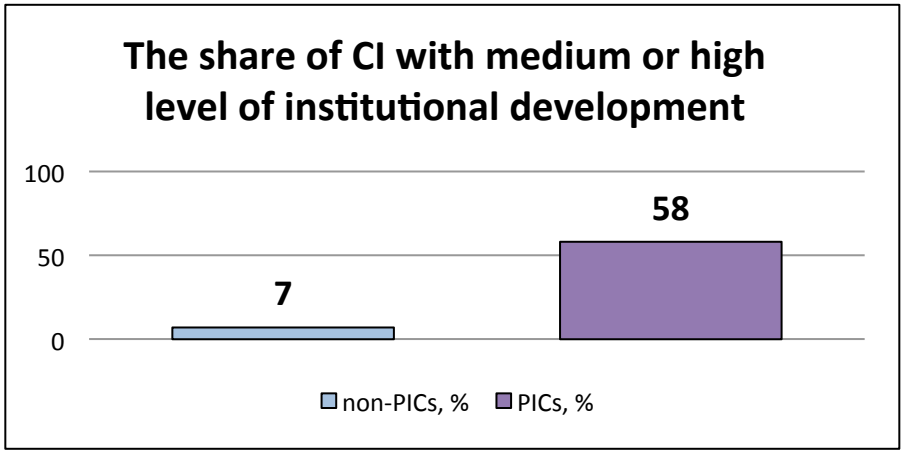
20th TCI 201Global conference "The Future of Clusters Through Cross-Country and Cross-region Collaboration". 7-9 November 2017

1. National policy has had a significant impact on the emergence of cluster initiatives and their performance. Evidence from the pilot innovative clusters (PIC) program

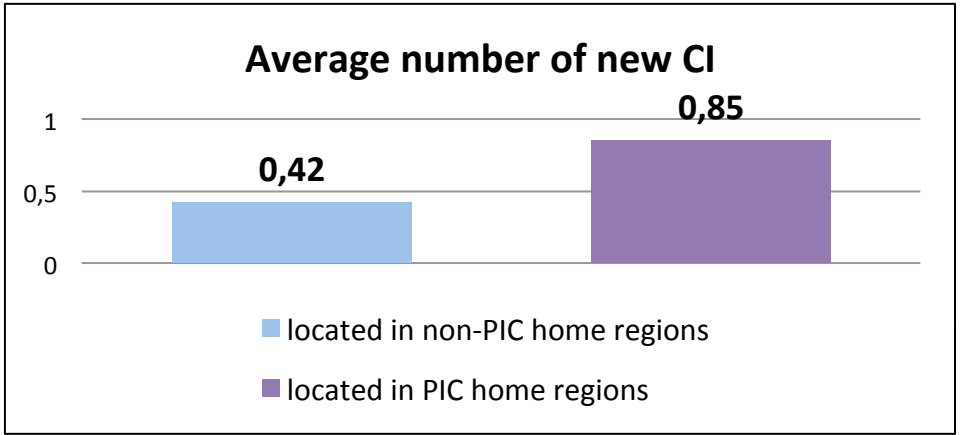
1 Average employment in the clusters supported by the state subsidy was **3 times higher** than in the clusters with private funding only



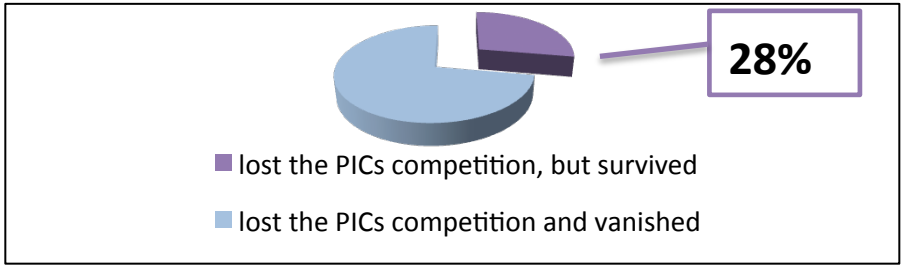
2 The share of PICs with high and medium level of institutional development is **8.29 times higher** than the respective share of non-PICs



3 In the regions of the state supported clusters (PICs) new cluster initiatives were created on average **twice as intensively** as in the other regions.



4 18 of 65 CI which had lost the contest **continued functioning**, **despite the lack of state support**



40% of the German cluster initiatives with rejected applications for InnoRegio programme contest still exist and implement their projects (Eickelpasch and Fritsch, 2005).

2. Specific support programmes can address different challenges and industries / sectors (manufacturing-based, science-based, SME-based clusters)

Challenge 1

Provide comprehensive approach to support of new and emerging industries, such as IT, biotechnology, advanced materials, etc. It's crucial to build a proper ecosystem around them; define key regions, their roles, enhance cross-regional cooperation

- 27 pilot innovative clusters located in 28 Russian regions were selected for subsidizing with the total funds exceeding € 90 m in 2013-2015.
- 12 Russian regions host 12 innovative clusters, which were assigned the status of investment attractiveness leaders on a global scale.

Map of nationally-supported clusters and cluster development centres in Russia

Challenge 2

Revitalize the old industrial agglomerations: aerospace, automotive, nuclear sectors, petrochemical and chemical industries. Value chains extension and diversification to the new markets are needed.

- 22 industrial clusters are located in 20 Russian regions. The total subsidy to support 8 cluster projects is expected to be € 27 m in 2013-2015.

Challenge 3

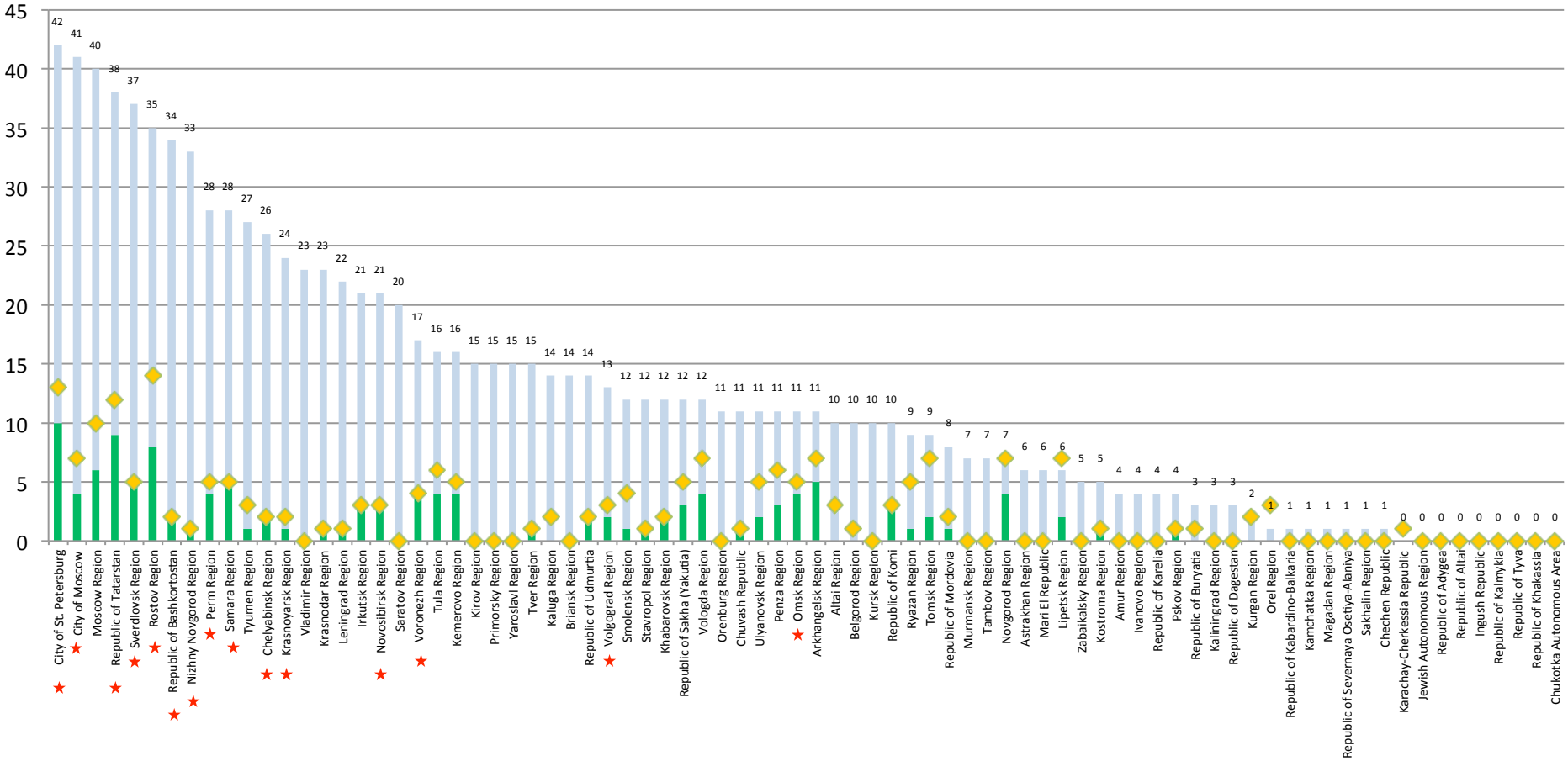
Boost competitiveness of SMEs in traditional industries such as food, wood processing, furniture, jewelry and so on. Financing of collaborative projects - is one of the important instruments.

- 34 clusters development centres located in 33 Russian regions were subsidized with the total funds of € 19.4 m in 2010-2016.

3. Policy traditions employed by different ministries is more influential for support programmes design than country or cluster features

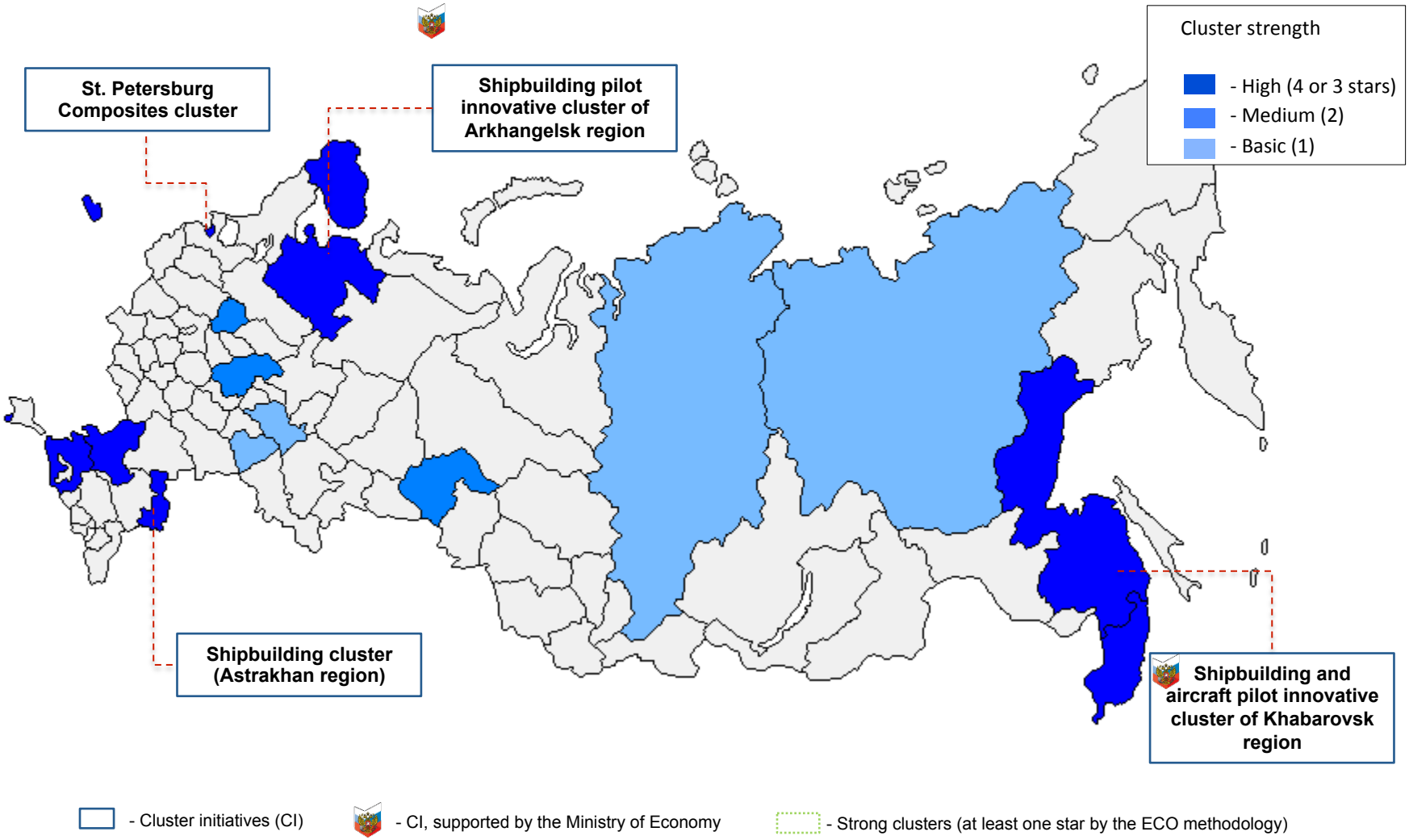
Criteria	Innovative Clusters (Ministry of Economic Development, 2012)	Industrial Clusters (Ministry of Industry and Trade, 2015)
Key support goals	▪ Export volumes increase ▪ Attraction of investments	▪ Enhance industrial cooperation ▪ Import substitution
Sectorial and spatial orientation	▪ No restriction to sectors of activity (in fact, biopharmaceutics, IT, aerospace, petro-chemistry, and machinery) ▪ Single region or neighboring regions	▪ Manufacturing ▪ Cases of clusters with members in the regions remoted from each other
Support provision principles, and support addressee	▪ Advance co-funding ▪ Regional authorities	▪ Compensations of ex-post expenses ▪ Industrial enterprises
Support focus	▪ Synthetic cluster programmes (a set of projects fulfilled by various cluster members)	▪ Joint projects fulfilled by two or more cluster members (there is, at least, one clusters member who invests in a new product that is planned to be purchased by the other clusters member)
Cluster management organization as a national support addressee	▪ Supported from the federal funds *inter alia*	▪ Not supported (they are financed either by cluster members, or regional authorities)
Cluster selection approach	▪ One-time competition, cluster short-list updating unformalized	▪ Cluster short-list is made up on a applicative and continuing basis
Funding time-frame	▪ One year ▪ Annual competition of applications among clusters from a closed short-list	▪ A contract between Ministry of Industry and Trade and cluster project initiator for a 5-year period maximum

4. Regions can vary greatly in terms of cluster potential (quantity and strength of statistical clusters), which is not always considered by policy-makers

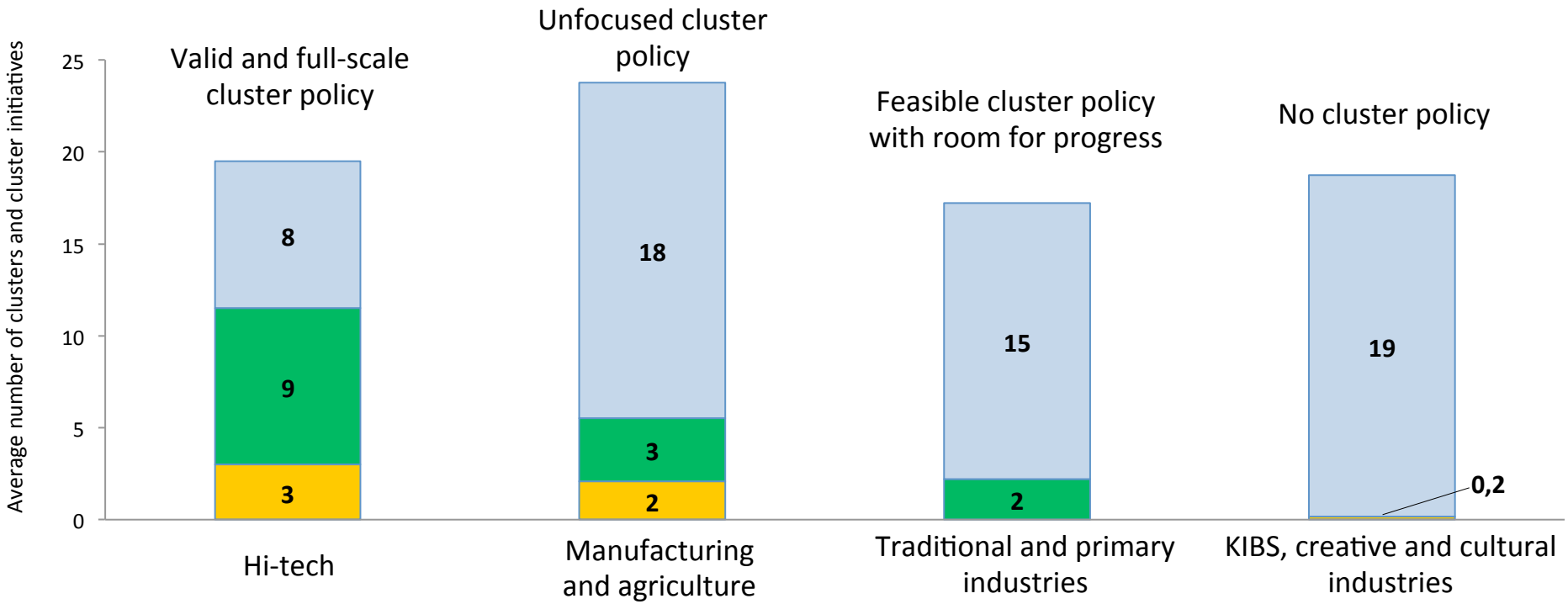


- Number of strong clusters (at least 1 star)
- Number of clusters with cluster initiatives
- Number of strong clusters (at least 1 star) with cluster initiatives
- Regions with cities of more than 1 mln dwellers

Cluster mapping helps to specify the policy. The case of Water transportation in Russia: still great potential for cluster initiatives and cross-regional cooperation



5. The intensity and validity of cluster policy varies greatly in different sectors. Russia prioritizes hi-tech and manufacturing



4 industries:
- Biopharmaceuticals
- Aerospace Vehicles and Defence
- Information Technology and Analytical Instruments
- Automotive

21 industries:
- Upstream Metal Manufacturing
- Upstream Chemical Products
- Plastics
- Construction Products and Services
- Food Processing and Manufacturing
- Downstream Metal Products
- Agricultural Inputs and Services
- Furniture
- Downstream Chemical Products
- Textile Manufacturing

10 industries:
- Livestock Processing
- Paper and Packaging
- Oil and Gas Production and Transportation
- Jewellery and Precious Metals
- Coal Mining
- …

16 industries:
- Music and Sound Recording
- Performing Arts
- Video Production and Distribution
- Marketing, Design, and Publishing
- Distribution and Electronic Commerce
- Financial Services
- Insurance Services
- Apparel
- …

Number of strong clusters (at least 1 star)

Number of clusters with cluster initiatives

Number of strong clusters (at least 1 star) with cluster initiatives

Ideas for industrial policy

1. Positive effects of cluster policy such as the increase of new cluster initiatives (out of the supported ones) suggest the importance of long-standing cluster support programs. Not only allocation of funds, but also legitimation of relevant regional clustering initiatives and policies

2. Several specific support programmes can turn to be more effective, than a holistic one, which “addresses all the issues of all clusters”. Specific cluster programs with different design depending on particular industry (50+ according to Porter and ECO) / group of industries?

3. Policy traditions employed by different ministries is more influential for support programmes design than country or cluster features. Openness between different ministries and mutual learning is crucial to overcome possible path dependencies of current policy traditions

4. Cluster mapping is worth even greater consideration. Regional experimentation in industrial policy need not be limited; it is the risks distribution that need to be optimized (the less clustering potential is feasible, the more private or/and regional co-investment is required). Basis for enhancing interregional collaboration between CI

5. Services (including KIBS), creative and cultural industries can be underestimated as full-fledged regional development priorities and cluster policy addressee. (BUT: cluster policy efficiency could be industry-related)