MNEs and a cluster: a ‘chicken or egg’ discussion

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Russian Cluster Observatory

A cluster-specific research and consulting center, established at HSE ISSEK in 2012

Expertise in cluster excellence, regional studies, innovation and industry-related policies design

Services from legal acts drafting to cluster management training, and from policy makers consulting to cluster evaluation

Access point to data on clusters and cluster organisations throughout Russia

Cluster policy milestones

- Drafting legal framework, regulating the launch and activity arrangements of innovative and industrial clusters
- Expertise of cluster applications for public funding provided by the Ministry of Economic Development (2012-2015) and the Ministry of Industry and Trade (since 2016)
- Performance evaluation of clusters, engineering centers and technological platforms
- Running the project office to foster horizontal cooperation among innovative clusters
- Publishing cluster relevant guidelines and analytics

Cluster policy contribution

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Cluster policy outcomes

- 34 Cluster Development Centers
  - 33 regions
  - ~€20 m
  - 2010-2016

- 27 Pilot Innovative Clusters
  - 28 regions
  - ~€100 m
  - 2013-2015

- 43 Industrial Clusters
  - 27 regions
  - 8 joint projects
  - ~€56 m
  - 2016-2017

- 12 Leading Clusters
  - 12 regions
  - 2016-2020
Cluster Map of Russia: online, free and user-friendly platform with relevant data on clusters countrywide

map.cluster.hse.ru

Ca. 3000 members
Ca. 1.5 млн employees

118 cluster initiatives

Organisation development level

89 initial
21 medium
9 high
International activities of leading Russian clusters

Valley of Machine-Building
Lipetsk Cluster

INNOKAM Cluster of Tatarstan

Bashkortostan Petrochemical Cluster

Moscow Region Consortium of Innovation Clusters

BRIGHT CITY Cluster of Mordovia

Ulyanovsk Aerospace & Nuclear Cluster
Outline

1. Research background and design
2. MNEs in Russian clusters: a snapshot
3. The interplay of MNEs and clusters: preliminary research outcomes
4. Future research challenges
1. Research background and design
Research background: glocalization

Balanced approach to regional development:

- Embeddedness and regional context are important success factors (Ghemawat, 2007). **BUT** excessive focus on the properties of the territory, informal interactions can lead to the trap of the closure (Asheim, Isaksen, 2002) => sticky VS ubiquitous knowledge
- Regional development largely depends on external interactions, access to global channels for the reproduction of advanced achievements (Bathelt, Malmberg, Maskell, 2004) => local buzz + global pipelines

Regional assets and MNEs: strategic coupling

- The more unique and demanded by the global players are the resources of the region, the stronger and longer their connection ("cohesion") with this territory
- These local advantages - the "assets" of the region - can be of interest and value to large corporations that are integrated into global industrial networks. (Coe et al, 2004)

MNEs in a regional context, and the role of / impact on clusters

- MNEs combine global reach and advantages of drawing upon regionally available competences (Bartlett & Ghoshal, 1989)
- Institutional and project-based levels of MNEs connections to regions: differ by intensity of bonds and are not always consequential => search for effective means to involve MNCs in regional clusters (Mattes, 2013)
- The resilience of clusters builds on integrative effects from their network through external actors and knowledge interactions (Martin and Sunley 2011; Simmie and Martin 2010)
Research questions

- Are these cluster / regional conditions that attract MNEs, or
- MNEs that open regional branches, then foster the emergence of a cluster in its area of specialization?

Source: https://caricatura.ru/top/best/url/parad/vova/15037/&gfc=491401
Data and methodology

Step 1. Express analysis of ‘MNEs in clusters’ landscape

Method: desk research
Sample: 118 cluster initiatives registered on Cluster Map of Russia

Criteria:
- Relation to cluster: member / partner
- MNE: industry; headquarters
- Host cluster: industrial / innovative/ supported by CDC / none; new / old
- Host region: investment / innovative ranks

Step 2. Deeper analysis of selected cases

Method: semi-structured interview
Sample: 4 managers of leading CMOs

Questions:
- Role of clusters in attracting MNEs, and their integration into the local economy
- Forms of MNEs’ participation in cluster governance
- Joint cluster projects involving MNEs
- Impact of MNE’s quitting the region on a cluster
- Interaction model of SEZ, which concentrate most MNEs in Russia, and clusters
2. MNEs in Russian clusters: a snapshot
Domestic companies and MNEs in Russian clusters

- Share of clusters with MNEs as partners or members
  - Have MNEs as partners or members: 23%
  - Have NO MNEs as partners or members: 77%

- The share of foreign members in the total number of members of Russian clusters
  - MNEs as cluster members: 1.4%
  - Russian cluster members: 98.6%

More efforts are needed to increase global visibility of Russian clusters:
- Workshop on cluster collaboration opportunities in APEC: Moscow, November 2019
- TCI Global Conference: Kazan, October 2020
Home Countries of Headquarters of MNEs’ – the members of Russian Clusters

- USA: 27%
- Germany: 19%
- Other Countries: 14%
- Italy: 6%
- UK: 5%
- Finland: 5%
- Switzerland: 5%
- France: 5%
- Austria: 4%
- Belarus: 3%
- Norway: 3%
- Turkey: 3%
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Distribution of MNEs among clusters
(source – Cluster Map of Russia, 2019)

45 industrial clusters
- 931 members:
  - 6 member MNEs
  - 2 partner MNEs

21 innovation clusters
- 2,386 members:
  - 53 member MNEs
  - 56 partner MNEs

64 clusters supported Development Centers
- 1,863 members:
  - 18 member MNEs
  - 10 partner MNEs

29 clusters without special status
- 450 members:
  - 2 member MNEs
  - 0 partner MNEs

1. Most MNEs are located in innovation clusters (15 out of 25 have MNEs as partners or members)
2. Least MNEs are located in clusters without any status (2 out of 29 have MNEs as partners or members)

The MNEs are embedded in clusters, which have relevant KPIs induced by public programs - ?
### Internationalization as a focus of innovation cluster support programs

#### Pilot innovation clusters (2013-2015)

- **Beneficiaries:** 25 clusters from 28 regions
- **Total funds:** €100 m
- **Funded activities:**
  - Developing innovation and educational, engineering and social infrastructure
  - Strengthening cooperation, promoting cluster member products in external markets
  - Staff training
- **KPI achieved by 2015:**
  - Pilot innovation clusters’ export revenues are 20% higher than regional average

#### Leading innovation clusters (2016-2020)

- **Beneficiaries:** 12 clusters from 12 regions
- **Support:** consulting, training, priority access to available support initiatives, road mapping
- **Supported activities:**
  - Innovation infrastructure building
  - Promoting export of high-tech products
  - Attracting FDI
  - Technology commercialisation
  - Cluster management excellence (ESCA)
  - Modernization of core companies
- **KPI to be achieved by 2020:**
  - 50% increase (from US$ 5.6 bln) of exports, excluding raw materials
Most MNEs are located in innovation clusters, with the focus on machinery & equipment manufacturing, biopharma, ICT and automotive.

**MNEs are mostly attracted to embed in regions with clusters operating in new industries / technological domains -? => an implication for policymakers...**
Key MNEs represented in Russian Clusters

**Pharmaceuticals and Biotechnology**
- BERLIN-CHEMIE MENARINI
- AstraZeneca
- STADA Arzneimittel
- Sanatmetal
- Palladio
- greenet Finland
- MEDENA
- DSM
- NovaMedica
- ESMAR
- SVAS BIOSANA
- Huhtamaki

**Manufacture of machinery and equipment**
- ASSECO
- Schlumberger
- Boeing
- Buchen GROUP
- ARMSTRONG
- BEKAERT
- Indesit
- Eberspächer
- COŞKUNÖZ
- GM
- LANXESS
- brose

**Information and communication technology**
- Dell EMC
- eVelopers
- Edisoft
- Parallels
- AQUA NOVA
- Triaxes
- ICL
- Ferus
- INTLab
- ITPS

**Automotive industry**
- RITTAL
- Nordic Gold
- TRIOPT
- SoftAge
- TRIOTT
- Horsch
- NEPES
- ABB
- VIESSMANN
- Belfingroup
- ETD Systems
- Azul Systems
- Dassault Systemes
- AZUL SYSTEMS
- F
- GM
- YOKOHAMA
- LANXESS
- Lifan
- MONDI
The number of MNEs in Russian clusters by regions and their innovation and investment attractiveness ranks

Most MNEs are in clusters located in regions with high innovation or/and investment attractiveness ranks

What are the features of regional policy that help attract MNEs?

- Top 15 innovative regions according to HSE Russian Regional Innovation Development Ranking (2015 data)
- Top 15 regions according to the National Rating of the Investment Climate (2015 data)
Types of clusters according to the time of emergence and the presence of MNEs as partners or members

Older clusters *with* MNEs as partners or members

- 14 clusters supported by CDC
- 3 industrial clusters
- 8 innovative clusters

New clusters *with* MNEs as partners or members

- 22 clusters supported by CDC
- 3 clusters supported by CDC
- 5 innovative clusters
- 2 other clusters

Older clusters *without* MNEs as partners or members

- 79 clusters supported by CDC
- 27 industrial clusters
- 6 innovative clusters
- 16 other clusters

New clusters *without* MNEs as partners or members

- 34 clusters supported by CDC
- 13 industrial clusters
- 2 innovative clusters
- 11 other clusters

* We assume that since this period (after the default of 1998 and the beginning of the growth of the Russian economy), foreign companies have received more incentives to transfer production to Russia.
3. The interplay of MNEs and clusters: preliminary research outcomes
MNEs as a cluster’s founding fathers

- MNEs are co-founders and anchor members of the cluster initiative
- MNEs were localized in the region in industrial parks due to active investment policy
- Top managers of MNEs are in turns Chairmen of the Cluster Board
- Joint cluster projects with MNEs:
  - Kagocel® production: Stada + Niarmedic => co-opetition effect
- Impact of MNE’s quitting the region on a cluster: opposite – the cluster cannot embrace all new MNEs
- Key values of embeddedness:
  - to MNEs: access to services of CMO (incl. GR, HR, networks) and regional government (SPIC)
  - to cluster / region: new MNEs, new business culture, joint projects, value chain

PHARMACEUTICAL CLUSTER of KALUGA:
- Bio- and radiopharmaceuticals
- Nuclear medicine

Region
- Global environment
- Cluster
- Industrial park
- First MNEs
- New MNEs
- Entering region / cluster
- Sharing experience of regional embeddedness
MNE as one of the cluster anchor members

INNOKAM CLUSTER OF TATARSTAN:
- Automotive components manufacturing
- Downstream chemical products

- SEZ as a co-founder of the cluster initiative attracts MNEs to the cluster
- MNEs are cluster members OR strategic partners of cluster anchor members
- MNEs are part of General Assembly of cluster management organization (CMO) and are involved in cluster governance

- Joint cluster projects with MNEs:
  - Olefin complex EP-1200 construction: Linde AG + Nizhnekamskneftekhim PJSC
- Impact of MNE's quitting the region on a cluster: Ford
- Key values of embeddedness:
  - to MNEs: access to services of CMO (incl. GR, HR, networks) and regional government
  - to cluster / region: infrastructural projects (e.g. construction of an industrial park)
Cluster as an MNE per se

MOSCOW INTERNATIONAL MEDICAL CLUSTER:
• Healthcare services (diagnostics, treatment, rehabilitation)
• Medical education and R&D

- The cluster initiative was launched for MNEs
- MNEs are localized in the region under special legal regime – like in their home (OECD) countries, national regulations do not apply
- No participation in cluster governance; instead – bringing new treatment and medical education culture
- Joint cluster projects with MNEs:
  - each MNE is a project per se: operator + investor
- Impact of MNE’s quitting the region on a cluster: NO
- Key values of embeddedness:
  - to MNEs: special legal regime, services of CMO, infrastructure, ↓ land rental rates, public co-investment
  - to cluster / region: unique career and educational opportunities for Russian doctors and biomedical researchers, and access to world-class healthcare to patients in their own country
Findings and New questions

• MNEs are attracted by regional policy measures, with clusters operating in new industries / technological domains.
• Cluster management role is to provide added value to MNEs and keep them within.
• MNEs attraction to clusters is out of scope of national cluster policy.

What are the features of regions / clusters / national policy that attract MNEs and keep them in local environment?
What are the effects of MNEs on regions / clusters?
What policy interventions are most effective to attract MNEs?