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**EMERGING CLUSTERS
OF THE NORTHERN DIMENSION**

**Competitive Analysis of
Northwest Russia – A Preliminary Study**

ETLA, The Research Institute of the Finnish Economy

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ABSTRACT: The study presents the initial results of research into the competitiveness and prospects for further growth of the industries of Northwest Russia. It also highlights the opportunities for over-the-border cooperation between Finnish and Russian companies. The structure and main features of seven key sectors of the Northwest Russia were examined. The forestry, base metals, energy, food and ICT sectors were studied using a method of cluster analysis. The study demonstrates that all the necessary elements for the formation of internationally competitive clusters are found in these sectors. The transport and logistics sector to a great extent determines the cost level and even competitiveness of local manufacturers. The construction materials industry benefits from natural resources, but it is fragmented and lacks the governmental and private efforts necessary for its development. Interviews with the executives of key companies and an analysis of what the sector needs showed that there is a high potential for over-the-border cooperation based on complementary resources, such as experience, technologies and the knowledge of global market by the Finnish companies, on the one hand, and the natural resources, cheap and highly qualified labor force, educational base, and broad local market that Northwest Russia offers, on the other hand.

KEY WORDS: Northwest Russia, Finland, Over-the-border cooperation, industrial clusters, competitive advantage, economic development, industrial policy

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TIIVISTELMÄ: Tutkimuksessa raportoidaan ensimmäiset tulokset Luoteis-Venäjän teollisuuden kilpailukykyä käsittelevästä tutkimusprojektistä. Se myös valottaa Suomen ja Luoteis-Venäjän taloudellisen yhteistyön ja rajan ylittävän liiketoiminnan kehitysmahdollisuuksia. Tutkimuksessa esitellään seitsemän Luoteis-Venäjän johtavaa teollisuudenalaa. Metsä-, metallienjalostus-, energia-, elintarvike- ja ICT-sektoreiden rakennetta ja kehitystä tarkastellaan klusterianalyysillä. Tutkituilla aloilla on periaatteessa olemassa kaikki elementit, jotta niistä voisi kehittyä toimivia, kansainvälisesti kilpailukykyisiä klustereita. Lisäksi tarkastellaan logistiikkaa sekä rakennusmateriaaliteollisuutta. Logistiikka vaikuttaa merkittävästi klustereiden kilpailukykyyn. Rakennusmateriaaliteollisuus on kehittymätön – huolimatta runsaista luonnonvaroista – mutta kiinnostava, koska alueen kehittyessä rakentaminen lisääntyy nopeasti. Viennin lisäksi klustereiden muukin taloudellinen yhteistyö – strategiset allianssit, alihankinta ja suorat sijoitukset – on viriämässä. Kaupan rakenteen tarkastelu ja yhtiöiden näkemykset osoittavat, että rajan ylittävälle taloudelliselle yhteistyölle on hyvä pohja, koska kumppaneiden vahvuudet täydentävät toisiaan ja auttavat molempia kansainvälisillä markkinoilla. Suomi tarjoaa kehittyntä tuotantoteknologiaa ja osaamista sekä globaalien markkinoiden tuntemusta. Luoteis-Venäjällä on luonnonvaroja, edullista ja laadukasta työvoimaa sekä hyvä koulutus- ja tiedeperusta ja sen kautta avautuvat portit Venäjän laajoille markkinoille.

ASIASANAT: Luoteis-Venäjä, Suomi, rajan ylittävä taloudellinen yhteistyö, teolliset klusterit, kilpailuetu ja taloudellinen kasvu, elinkeinopolitiikka

Preface

Russia is a combination of slow change and fast development. Ten years ago, the Soviet Union broke apart into separate market economies. This opened the gates for institutional reforms, entrepreneurship, market mechanisms and for new forms of innovation and development work. Social change was significant regardless if measured from the viewpoint of individuals, companies and production plants, or the public sector. Now that the world economy is stagnant, Russia has emerged to become one of the growth engines.

Economic development in Russia will bring wealth to Finland, too. The Russian market offers export opportunities for Finland as well as an important source of imports. Finnish companies are seriously considering opportunities for wider over-the-border economic cooperation and for locating business operations in Russia.

ETLA, the Research Institute of the Finnish Economy, has decided to carry out a large-scale project on the economic development of Northwest Russia. In an economic sense Northwest Russia is the most important area for Finland and Finnish companies among the seven federal districts of Russia.

The aim is, together with participating Finnish companies, to increase our knowledge of business activities in the region. There will be separate research reports on, at least, the Northwest Russian forest, ICT, basic metal and energy clusters, and a summary report combining all the results of the project.

The project is a joint project of the Center for Strategic Research (CSR) in Moscow, the foundation of which was initiated by President Putin, and Solid Invest, a consulting and research company in St. Petersburg. The aim of CSR is, with the help of the project, to develop the Russian industrial strategy, with Northwest Russia as an example, and at the same time make Russia a more appealing investment target and location for foreign companies.

We thank the Ministry of Trade and Industry in Finland for financing the project, the Center for Strategic Research for providing us with its expertise and data, and our hard-working research colleagues in St. Petersburg.

Helsinki, September 2002

Pentti Vartia

Author's Preface

This study is the first publication in a series of studies devoted to the development and competitiveness of industries of Northwest Russia. Within the framework of this project we intend to assess important issues and trends for the newly emerged clusters of economic activities in this region. There is an acknowledged and urgent need for new approaches and ideas related to industrial policies for this region. This information is also important for the decision-makers in neighboring areas, and principally in Finland.

The experience of elaborating approaches and working in these areas was very important and interesting for all participants of the project. We believe that the results could be extremely valuable for the purposes of facilitating the integration and development of both countries in question - Finland and Russia.

We would like herewith to express our gratitude to the Ministry of Industry and Trade of Finland (MTI), which commissioned and supported this study, and members of the Steering Group, Mr. Eero Jäntti (MTI), Mr. Matti Anttonen and Mr. Timo Kienanen (Ministry of Foreign Affairs of Finland), and Mr. Timo Laukkanen (Confederation of Finnish Industries and Employers). Many thanks also to Russian and Finnish companies that provided valuable input and took part in discussions, interviews and case studies in the project.

The authors would like to acknowledge the industry experts and analysts who provided their valuable insights into the project. They are: Andrey Averin - ICT cluster; Sergey Boltramovich - general description of Northwest Russia, transport and construction materials industries and forest cluster; Vladimir Gorelov - the metal and metal-working cluster; Dmitry Efremov - the forest cluster; and Alexey Osipov - the energy cluster. The authors are also very grateful to the other members of the research team for their valuable efforts in obtaining and processing data: Dmitry Belov, Natalia Ivanova, Vasily Murashov, Stanislav Redman, Anton Savchenko, Piia Walden and Melina Laakso.

We hope that the ideas and approach will be both interesting and valuable for the reading audience of this work.

Helsinki, June 2002

Grigori Dudarev, Hannu Hernesniemi and Pavel Filippov

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Executive Summary

The present study attempts to assess the opportunities and changes arising from the transition to the market economy in Russia, and associated changes in the structure of bilateral trade. It also presents an analysis of prospects and trends in the economic development of Northwest Russia, based on an examination of clusters of economic activity in this geographical region in relation to the development and structure of the Finnish economy. The main purpose here is to provide a new framework and valuable ideas for possible aims and directions of a Northern Dimension initiative, and for decision-makers who are interested and involved in policy matters related to the economic development and integration of Northwest Russia and Finland. The area of Northwest Russia in the present study is considered to coincide with the borders of the newly created Northwest Federal District of Russia, which is also a new feature in assessing the economic area near the border with Finland.

In Chapter 1 of the study, we present the main ideas and aims of the study in more detail, as well as a general introduction into the economy of Northwest Russia. This Chapter makes clear that Northwest Russia is more oriented towards manufacturing and processing than other areas of Russia. During recent years, the most rapidly developing areas of economic activity in the Northwest have been food processing and information and communication technologies (ICT). We also see that general industrial production grew rather fast in this region.

The structure and development of bilateral trade between the economies of Russia and Finland and the clusters of industrial activity of both countries are considered in Chapter 2 of the present study. The analysis shows that the most important economic activities and clusters in both areas are identical (forest, metals, energy and ICT, primarily). An analysis of trade demonstrates that the clusters are for the most part complementary and do not compete on global markets, thus creating substantial opportunities for over-the-border integration and cooperation. The enormous potential of bilateral investments and business development was also assessed in this chapter, as evidenced in trial projects that are being carried out already by the largest participants.

In Chapter 3, we turn to a more detailed analysis of the structure and competitiveness of the Northwest Russian clusters. This analysis provides a good basis for considering possible alternatives for further de-

velopment of Northwest Russia. This chapter also examines agglomerations and concentrations of industrial activities, as well as related networks.

Chapter 3 is devoted to an in-depth study of the forest cluster in Northwest Russia. There are virtually no synergies and no horizontal cooperation in the development, logistics, etc., of new products and markets in the cluster, due to the remoteness of the companies from each other, their historically established specializations, regional barriers and growing transport tariffs.

The competitiveness of the regional forest industry on international markets is cost-based, and determined, primarily, by vast and cheap forest resources, relatively low (in comparison with Western Europe) energy and transport tariffs, and low labor costs. The main export articles are raw wood and low value-added products. Achieving a better understanding between domestic businesses, foreign investors, and government is highly desirable if the country is to develop its long-term export ability in this sector.

In the next chapter, we analyze metals and metal processing in the region. This area was traditionally a center of metal production and processing in Russia. In the 1990s, industrial production in the cluster shifted to the production of metals, due to their competitiveness on the global market in contrast to the products of metal processing industries. Today, metallurgy is one of the backbones of the Russian economy. It is concentrated around the manufacture of low value-added, mass products of the low process stage. Its competitiveness is based on the low costs of raw materials, labor and energy. The market structure in this sector has already been formed. The ownership of key companies is concentrated in the hands of a limited number of the private owners, and in this sense, the cluster can be considered as one of the most advanced in Northwest Russia.

Issues related to the energy cluster are addressed in Chapter 5. The energy cluster in Northwest Russia today is primarily concentrated in a small number of large companies operating throughout Russia. They enjoy limited competition as a result of an industrial structure inherited from the Soviet period. Most energy companies are regional monopolies today. Significant changes in the energy sector are expected only after competition has been introduced. It is thought that this could lead to considerable changes in the structure, efficiency and investment attractiveness of the energy sector. The development of the energy cluster in Northwest Russia is stimulated by transit trade and the processing of raw materials from other regions. Already today, St. Petersburg and the

Leningrad region are the hubs through which natural gas, oil, petrochemicals, coal, electric power, and other commodities are exported to Western markets. The growth of the transit of energy products creates further opportunities for establishing new industrial facilities (oil refineries, power plants, etc.) in the region. This could also create new opportunities for related engineering and technology companies, and conditions for closer cooperation between local suppliers.

Chapter 6 of the study is devoted to issues related to the development of the fastest growing cluster of Northwest Russia - the food cluster. The food industry of Northwest Russia is the only industry that has experienced a shift in development towards more sophisticated products in recent years. Northwest Russia is domestically competitive and an important agglomeration of food industries : the relative share of Northwest Russia in total domestic production and processing of fish and other sea products in 2000 was 26% (34% of fish production); in beer production 23%; and in dairy 12%. Fish and sea products are the most important export items in the food cluster of Northwest Russia.

Following global trends, the ICT cluster (Chapter 7) in Northwest Russia is also rapidly growing. It enjoyed spectacular growth in demand for final products, which led to a growth in sales and penetration into the market of cellular network operators. As the market continues to grow, in combination with the substantial human and industrial capital inherited in this area from the Soviet period, there is good potential for the development of import-substituting manufacturing. This can not only benefit the domestic market, but also, under certain circumstances, become internationally competitive, given the attractive cost of labor and skills accumulated in this area. An advanced educational infrastructure with renowned achievements (first-prize winners in programming contests, etc.) also adds to the potential for the development of competitive manufacturers of products and services in this region. Today, St. Petersburg is already a very important data transmitting hub for the whole of Russia (connecting to Finland), which could help to advance this location as advantageous for certain kinds of services and products, as well. St. Petersburg is also one of the main offshore programming centers in Russia at present, adding substantially to the prospects for further development of sophisticated solutions in this cluster overall.

The subsequent chapters examine two important and rapidly growing areas of activity in Northwest Russia. These are the construction materials industries, which are based on availability of natural resources, re-

orientation and scaling of regional production capacity in proportion to the local and domestic market size and vertical integration (integration of materials manufacturing into building), and the transport and logistics sectors, originating in the position of St. Petersburg as the largest trade hub and gate to global networks for Northwest Russia. The development of transport networks is an essential precondition for the integration of the area, and for the whole country, into the global economy. This process is complicated by the substantial investments in infrastructure, which are essential for making this activity globally competitive and efficient.

The last chapter of the study summarizes general issues that are important for further development of over-the-border cooperation and integration, based on interviews and the opinions of experts. It aims to provide ideas for policy and decision-making related to the aforementioned development of over-the-border activities. It stresses the enormous potential and benefits for both countries, Finland and Russia, arising from such development, which is predicated on/results in the possibility for the convergence and reduction of the gap in the GRP per capita between the regions.