Chapter 7

Czech Republic

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This chapter presents cluster evidence from the Czech Republic. Czech policy to foster small and medium-sized enterprises by encouraging enterprise clusters and networks is introduced. Special attention is paid to the potential of an emerging cross-border cluster in the northwestern border region of the Czech Republic with Poland and Slovakia.[11]

Local cluster mapping methodology

Working definition

When defining the term "cluster" for the Czech cluster case study, the OECD LEED cluster core definition – "local concentrations of horizontally or vertically linked firms that specialise in related lines of business together with supporting organisations" – served as a starting point. Inspired by the European Commission's work on entrepreneurial clusters (European Commission, 2002) and enterprise network theory (Mikoláš, 2002), the core definition of "local clusters" was extended to include networks as well (see Box).

Cluster definition for the Czech case study

Clusters refer to groups of independent, while interdependent (alternately collaborating and competing) companies and associated institutions that are geographically concentrated in one or several regions, even though their cluster may have global reach. Entrepreneurial clusters specialise in particular lines of business, be it high-tech or traditional industries.

While clusters and networks are certainly distinct, it was observed that clusters, especially cluster support organisations very often carried specific network characteristics. Entrepreneurial networks are defined as formal and informal organisations that facilitate the exchange of information and technology and foster various kinds of co-ordination and collaboration in a cluster, for example chambers of commerce, trade associations or alumni networks of schools and companies.

Hereafter, "clusters" are referred to as "entrepreneurial clusters and networks (ECN)". This somewhat enlarged definition helped to trace clustering firms, with or without network-type support structures.

Cluster mapping methodology

Identification of entrepreneurial clusters and networks is usually based on four basic methodological approaches: input-output analysis; calculation of location quotients; quantitative and qualitative techniques to visualise particular networks/ clusters; and a combination of the above approaches.

The decisive feature of clusters is a greater intensity of contacts and collaboration going beyond informal relations among firms. From a geographical point of view, the entities of a cluster can be either concentrated in a small area (e.g. a micro-region) or they can be located far away from one another but be interconnected by very intense and rapid information flows. Special attention therefore needs to be paid to the possibility of clusters straddling statistical boundaries.

Unfortunately, cluster mapping in the Czech Republic is seriously hampered by a lack of data for many reasons. In the years 1989/90, dramatic changes took place in the political and economic system that impacted on data collection and data collection methodology. The "Velvet Divorce" dividing Czechoslovakia into two separate states, the Czech and the Slovak Republic in 1993 further complicated matters. A new system of statistical regions was introduced at the beginning of the 1990's, bringing the number of Czech regions up to fourteen (including Prague) since 2000. Tragic floods in the Czech Republic in the first half of 2002 destroyed some central databases so that alternative statistical resources needed to be exploited. Further data-collection and methodology-related problems also need to be mentioned.

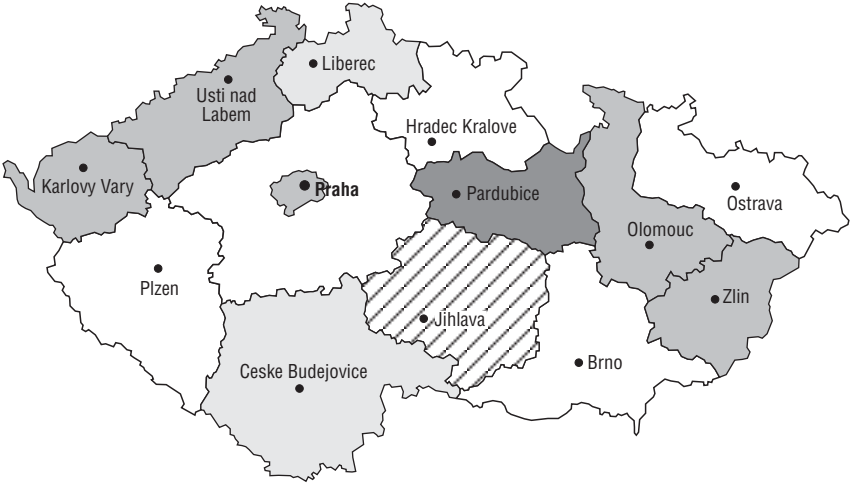
Firstly, in an effort to alleviate the regulatory burden of small firms, enterprises with up to 20 employees were exempted from their statistical information duty. Information is now gained by other procedures, such as selected and conjunctural inquiries and database analysis. These methods distort statistical information as microfirms with 0 – 9 employees account for 97% of all entrepreneurial subjects in the Czech Republic.

Secondly, input-output analyses are currently undertaken only once every five years. Moreover, segment and sector analysis is carried out only at the national level. In the opinion of Professor Macek, VSB-Technical University of Ostrava, ZU Plzen, an expert in input-output analysis and statistical methods, data available from enterprises employing more than 100 employees is very reliable, with statistics from enterprises with more than 20 employees being fairly reliable. However, the above mentioned classification of economic subjects according to the Czech Statistical Office standards is not undertaken at regional level although the organizational and sectoral structures of particular regions are dynamically changing on a

constant basis. Statistical data in the currently available form therefore cannot grasp the continuous constitution of new networks, clusters and as other entrepreneurial activities.

After expert discussions, it was decided to abandon the use of input-output analysis in an effort to avoid working with distorted data. As an initial indicator of entrepreneurial clusters and networks in the Czech Republic, calcuation of location quotients was undertaken for all economic sectors in all 14 regions according to NACE terminology using 2001 data. Figure 7.1 shows the location of the regions analysed. This was undertaken for large and medium-sized enterprises only (with 100 or more employees and with twenty or more employees respectively) in order to avoid data distortions due to the under-representation of SMEs. Because these results excluded small enterprises, further analysis of SME sector concentrations was undertaken at the level of 89 counties, using data from SME associations in Czech counties and regions. The concentration analysis was supplemented by analysis of the impacts of the government supported KOOPERACE programme, which provides funding to associations of at least 15 SMEs, a survey of expert opinion and reference ot the results of previous cluster research.

Figure 7.1 Map of the Czech Republic with its fourteen regional capitals



Identifying clusters

The total number of enterprise clusters and networks in the Czech Republic, as well as their share of GDP and employment had not been monitored before the exercise for this publication. After measuring industry

concentrations and taking into account expert estimates, we can state with some certainty that existing associations, co-operations, networks, clusters, as well as firm alliances of all types account for about 60% of Czech GDP and employment. The main concentrations are identified below by region and sector.

Results by region

In Tables 7.1-7.3 industry concentrations are presented by region and sector. The overall results showed that sectors other than production industries, such as agriculture, construction, transport, trade and warehousing activities and repair were usually connected to clusters cores situated in the production sector. The results are therefore presented for cluster cores in production only.

In each table, industry sectors with cluster potential are identified involving large (L), medium (M) or small enterprises (S), or their respective combinations (L, M, S).[12] When marked with an asterisk, an industry branch has a gravity centre of cluster creation in a specific region.

Table 7.1 Regional concentrations in production industries

Sector and NACE	Prague	Central Bohemia	Western Bohemia	Southwest Bohemia	Southern Bohemia
Food, drink, tobacco (DA)	L M *	L M S *		L S *	L M S *
Textiles (DB)			L M *	M	L M S *
Leather (DC)					
Wood (DD)		S		S	L M *
Paper, printing (DE)	L M *				L
Coke and petroleum (DF)					
Chemicals (DG)					
Rubber and plastics (DH)		S	M	L M *	
Mineral products (DI)		L	L M S *	L	
Metals (DJ)		M S *		L	
Machinery & equipment (DK)		M S			L M
Electrical & optical (DL)	L M S			L *	
Transport equipment (DM)	S *	L *			L
Furniture (DN)	S		L M *	S	L
Mining and quarrying (C)		L	L *		L
Electricity, gas, water (E)					L

Industry sectors with cluster potential (location quotient>1) are identified involving large (L), medium (M) or small enterprises (S), or their respective combinations (L, M, S). A sector marked with an asterisk has its cluster centre of gravity within the region. Full sector descriptions are provided in the endnotes to this chapter.

Table 7.2 Regional concentrations in production industries

Sector and NACE	Northwest Bohemia	Northern Bohemia	Eastern Bohemia	Northeast Bohemia	Southeast Bohemia
Food, drink, tobacco (DA)	S				L S *
Textiles (DB)	M	L *	L M *	L M S *	L M S *
Leather (DC)				S	S
Wood (DD)					S
Paper, printing (DE)	L				
Coke and petroleum (DF)					
Chemicals (DG)			S	S	
Rubber and plastics (DH)	M	S	M	L	M
Mineral products (DI)	L	L M S *		S	L S
Metals (DJ)	S *		M S *		
Machinery & equipment (DK)			L M S *	L S *	L M *
Electrical & optical (DL)	S		L	L *	L
Transport equipment (DM)		L			L
Furniture (DN)		L M *			L
Mining and quarrying (C)	L *	L			
Electricity, gas, water (E)	L *			L M	M

Industry sectors with cluster potential (location quotient>1) are identified involving large (L), medium (M) or small enterprises (S), or their respective combinations (L, M, S). A sector marked with an asterisk has its cluster centre of gravity within the region. Full sector descriptions are provided in the endnotes to this chapter.

Table 7.3 Regional concentrations in production industries

Sector and NACE	Southern Moravia	Southeast Moravia	Northwest Moravia	Northern Moravia
Food, drink, tobacco (DA)	L M S *	S	L M S *	S
Textiles (DB)	S	M	L M S *	S
Leather (DC)		S *	S	
Wood (DD)		S		
Paper, printing (DE)	L		L	
Coke and petroleum (DF)				
Chemicals (DG)		S	S	S
Rubber and plastics (DH)		L S *	S	M
Mineral products (DI)	M		M	
Metals (DJ)	L M *	S *	L M S *	L M S *
Machinery & equipment (DK)	L M S *	L *	L M *	M *
Electrical & optical (DL)	L S *	L *	L *	
Transport equipment (DM)				
Furniture (DN)	L	L		S
Mining and quarrying (C)				L *
Electricity, gas, water (E)	L	M	M	L M *

Industry sectors with cluster potential (location quotient>1) are identified involving large (L), medium (M) or small enterprises (S), or their respective combinations (L, M, S). A sector marked with an asterisk has its cluster centre of gravity within the region. Full sector descriptions are provided in the endnotes to this chapter.

Prague

Prague, the economic hub of the country is home to several industry sectors with cluster potential, even though it does not account for very high concentrations of industry, a phenomenon mainly explained by its function as capital. Cluster potential can be found in the manufacture of electrical and optical equipment and in the manufacture of pulp, paper and paper products, publishing and printing. Strong cluster potential also exists in the agrofood sector grouping together large enterprises with 100 or more employees producing food products, beverages and tobacco. If we inspect small and medium-sized (and mico-) enterprises below 100 employees we see cluster-creative tendencies particularly in following branches: manufacture of transport equipment, manufacture of pulp, paper and paper products, as well as publishing and printing, manufacture of electrical and optical equipment, and manufacture of furniture and secondary raw materials. Industry links run across regional borders, especially in the food sector linking with agriculture in Central Bohemia (this industry branch is linked to trade as well). This also applies to the manufacture of electrical and optical equipment with links to other industrial branches in other regions and the trade sector.

Central Bohemia

Industrial production in this region is very asymmetric. Large enterprises dominate in the manufacture of transport equipment, manufacture of food products, beverages and tobacco, manufacture of chemicals, chemical products and man-made fibres, manufacture of non-metallic mineral products, mining and quarrying, and electricity, gas and water supply. The main cluster potential lies in the manufacture of transport equipment, which is linked to metal manufacture and metal products, business activities and repair services in the region and in the Czech Republic as a whole. The hub of this cluster is the only existing large enterprise in the region, the motor works in Mlada Boleslav. Besides the automobile industry, there is strong cluster potential in the complex of agriculture and manufacturing of food products, linked with a trade network going beyond the region. Especially strong links exist to the region of Prague. Small and medium-sized enterprises develop and create networks in metal products, business activities and repair services, under the influence of the automobile industry. Further SME cluster potential is evident in the manufacture of food products, beverages and tobacco with a link to agriculture.

Western Bohemia (Karlovy Vary)

The region possesses two cluster cores. The first is located in the mining and quarrying industry and the second in the manufacture of other non-metallic mineral products, especially glass, ceramics and china. In this sector large enterprises form the cluster core with SMEs connected to them. There is also a direct relation to the mining and quarrying branch forming an overall cluster characteristic to the region.

Southwest Bohemia (Plzen)

Large enterprises create two clusters in this region that extend to the whole area of the Czech Republic. The first is a large machinery cluster encompassing manufacturing of electrical and optical equipment, manufacture of transport equipment, and manufacture of basic metals and fabricated metal products, which overgrows into the manufacture of non-metallic mineral products (glass, china and ceramics) and manufacture of rubber and plastic products – especially in the sectors manufacture of basic metals and fabricated metal products and manufacture of furniture and secondary treatment, where the cluster is expanded by SMEs. The complex of the machinery enterprises in Pilsen forms the cluster core. The second large cluster is in food manufacturing, encompassing several branches, with beer production prevailing. With the beer brewery in Pilsen forming its core, the cluster gained a dominant position on the Czech market after breweries in the Pilsner Urquell Group and Radegast merged.

In addition to these two major clusters there are smaller clusters involving the textile products industry, where medium-sized firms prevail, and in wood and wood products and the manufacture of furniture, in which small firms dominate. Large enterprises dominate in the sectors rubber and plastics, glass, china and ceramics, manufacture of machinery and equipment and especially in manufacture of transport equipment and in electricity, gas and water supply.

Southern Bohemia (Ceske Budejovice)

In recent years, the region has transformed itself significantly with large enterprises forming clusters in several sectors. There is a cluster core in the region in agriculture and the manufacture of food products. In the sector of textiles and textile products both large firms and SMEs are active. The cluster in the manufacture of wood and wood products is connected with the manufacture of pulp, paper and paper products, publishing and printing as well as manufacture of furniture. Manufacture of machinery and transport equipment also create a strong aggregation. SMEs are involved in the clusters of the sectors manufacture of food products, beverages and tobacco,

manufacture of textiles and textile products, manufacture of wood and wood products and manufacture of machinery and equipment.

Northwest Bohemia (Usti nad Labem)

Mining, the manufacture of coke, chemicals, chemical products and the production of electricity, gas and water supply are important clusters with very large enterprises in dominating positions. Large enterprises are also found in the cluster centred on manufacture of pulp, paper and paper products, publishing and printing and in the cluster in glass, ceramics and china however these large firms have no significant influence on the development of SMEs networks in these areas. Medium-sized enterprises show cluster potential in the sectors of textiles and textile products and in rubber and plastic products. In this region, small enterprises carry a local cluster potential in the manufacture of food products, basic metals and fabricated metal products, and in the manufacture of electrical and optical equipment. In general, the regional industry structure is affected by the surviving complex of organisations connected to fuels and energy producing materials.

Northern Bohemia (Liberec)

Two regional cluster-forming branches dominate in the region. First, the manufacture of non-metallic mineral products, where both large and small and medium-sized firms play a role. Second, the manufacture of furniture. Large enterprises also bring cluster-potential to the manufacture of textiles and textile products and the manufacture of electrical and optical equipment sectors. Medium-sized enterprises dominate in the manufacture of fabricated metal products and in manufacture of glass products. Small enterprises show strong connections with the glass-making cluster. They are also important in the manufacture of rubber and plastic products and the manufacture of furniture.

Eastern Bohemia (Pardubice)

In this region, large enterprises form a cluster core in the manufacture of machinery and the manufacture of electrical and optical equipment, with SMEs grouping around them. The same effect can be seen in the manufacture of textiles and textile products. In contrast, SMEs dominate the manufacture of basic metals and fabricated metal products.

Northeast Bohemia (Hradec Kralove)

Large enterprises dominate the clusters in the manufacture of food products, manufacture of rubber and plastic products, manufacture of

machinery and especially in power supply, manufacture of transport equipment and manufacture of textiles and textile products. Enterprises of all sizes make up clusters in the textile and clothing industry, the manufacture of machinery and the manufacture of electrical and optical equipment. Small enterprises are very active in the manufacture of basic metals and fabricated metal products.

Southeast Bohemia (Vysocina)

The greatest cluster potential of in this region lies in the manufacture of food products and the manufacture of textiles and textile products, where enterprises of all size categories are equally represented. Large enterprises dominate in the manufacture of machinery, electrical and optical equipment and transport equipment. In those sectors, we also find a relatively strong cluster potential.

Southern Moravia (Brno)

The following sectors have cluster-creative potential: manufacture of food products, with the presence of enterprises of all sizes and manufacture of electrical and optical equipment. There is also a smaller group of firms in the manufacture of wood and wood products. Large enterprises dominate in the manufacture of basic metals and fabricated metal products, in manufacture of machinery and in manufacture of machinery and equipment. The manufacture of transport equipment, mining and quarrying and especially power supply have exceptional significance

Southeast Moravia (Zlin)

Significant cluster potential exists in the manufacture of rubber and plastic products, in which large enterprises have strong position and with connections to the manufacture of leather and leather products. The manufacture of basic metals and fabricated metal products, manufacture of machinery and equipment and manufacture of electrical and optical equipment account for the second cluster forming group. There also exists another group of sectors creating a cluster with specific regional character in the manufacture of wood and wood products and the manufacture of furniture. Large enterprises have a strong position in the region, especially in the following sectors: manufacture of leather and leather products, manufacture of rubber and plastic products, manufacture of machinery and equipment, manufacture of transport equipment and power supply. SMEs have a significant position in manufacture of wood and wood products, manufacture of glass, ceramics and construction materials, electrical and optical equipment and the manufacture of furniture.

Northwest Moravia (Olomouc)

There is strong regional cluster potential in the manufacture of food products linked with agriculture and in the manufacture of textiles and textile products, in which enterprises of all size categories are represented, with a significant role played by SMEs. Large enterprises form a cluster in the manufacture of machinery and equipment, which is connected with the manufacture of basic metals and fabricated metal products, and in the manufacture of electrical and optical equipment, in which SMEs dominate. However, the region also encompasses the economically very weak area of the Jeseniky Mountains and the large agricultural region of Hana where industrial development is limited.

Northern Moravia (Ostrava)

Large enterprises have an dominant position with regard to cluster potential in this region, namely in mining and quarrying, especially of bituminous coal, in the manufacture of transport equipment and power supply. In addition, large enterprises play a significant role in manufacture of machinery and equipment, manufacture of rubber and plastic products and manufacture of basic metals and fabricated metal products. There exists a "double-cluster", which is formed by two partial clusters: the energy cluster (mining and quarrying, electricity, gas and water supply, and manufacture of coke and refined petroleum products) connected to the chemical industry and the metallurgical-engineering cluster, encompassing the manufacture of basic metals and fabricated metal products and the manufacture of machinery and equipment. Latent cluster creation potential lies in the manufacture of transport equipment, not only because of existing enterprises but also because of the industrial zone in Nosovice village (30 km from Ostrava city) and industry connected to the air industry (in Mosnov near Ostrava). SMEs are concentrated in the manufacture of food products and the manufacture of textiles and textile products, as well as in the manufacture of basic metals and fabricated metal products, manufacture of machinery and equipment and manufacture of furniture.

Results by industry sector

The following Figures illustrate the concentrations with cluster potential by industry sector. The core locations of the clusters within the Czech Republic are marked by circles, with S indicating that small enterprises doinate, M indicating that medium enterprises dominate and L indicating that large enterprises dominate. There are no clusters in two production sectors: manufacture of coke and refined petroleum products and manufacture of chemicals, chemical products and man-made fibres.

Figure 7.2 Manufacture of food products, beverages and tobacco

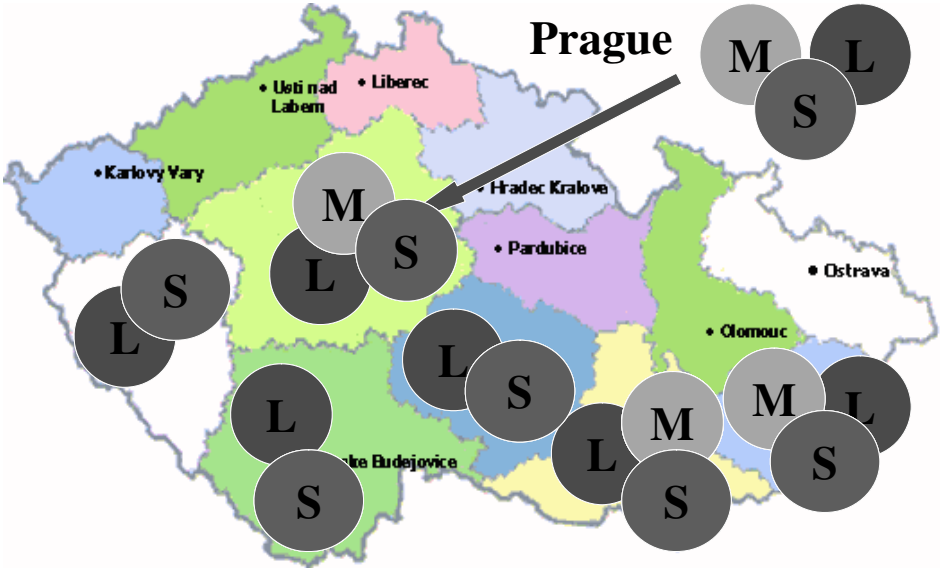


Figure 7.3 Manufacture of textiles and textile products

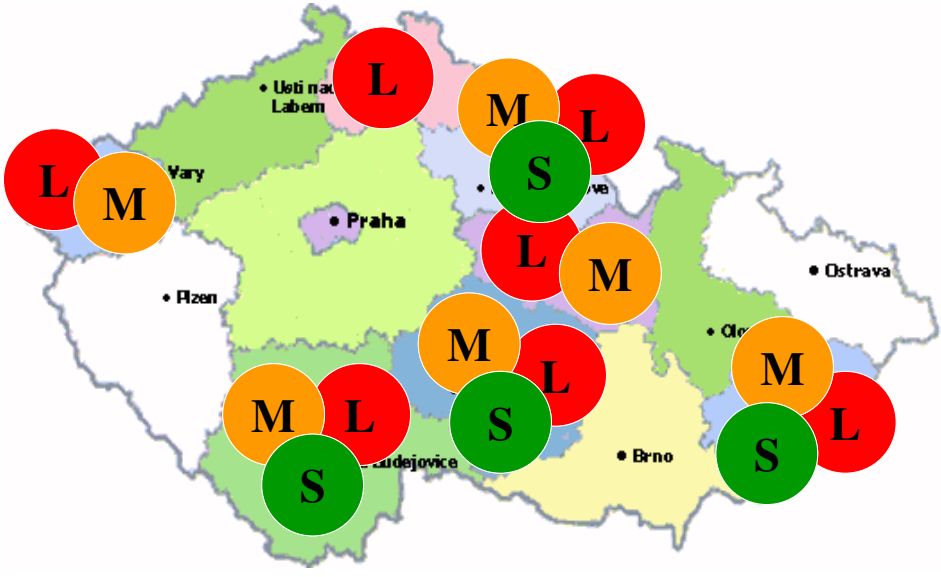


Figure 7.4 Manufacture of leather and leather products

Figure 7.5 Manufacture of wood and wood products

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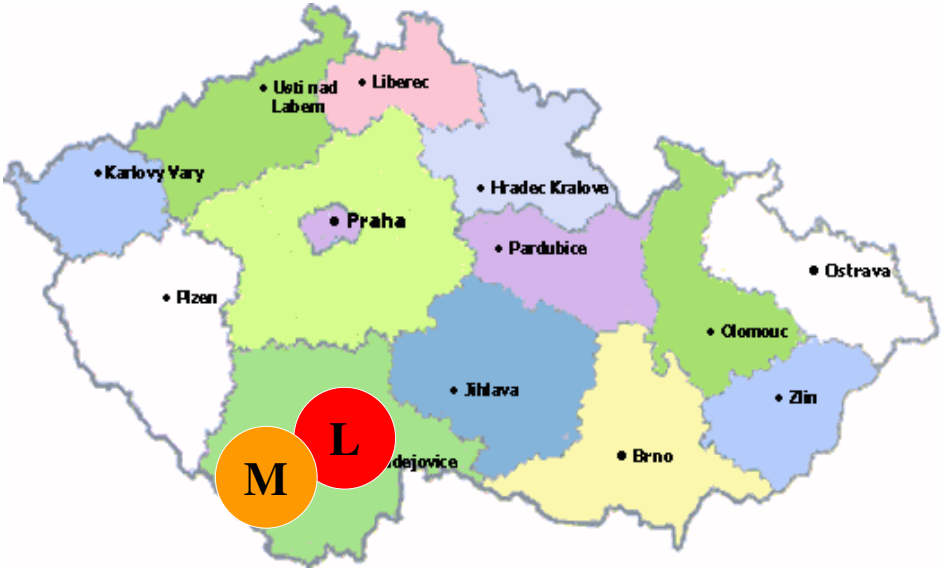


Figure 7.6 Manufacture of pulp, paper and paper products, publishing and printing

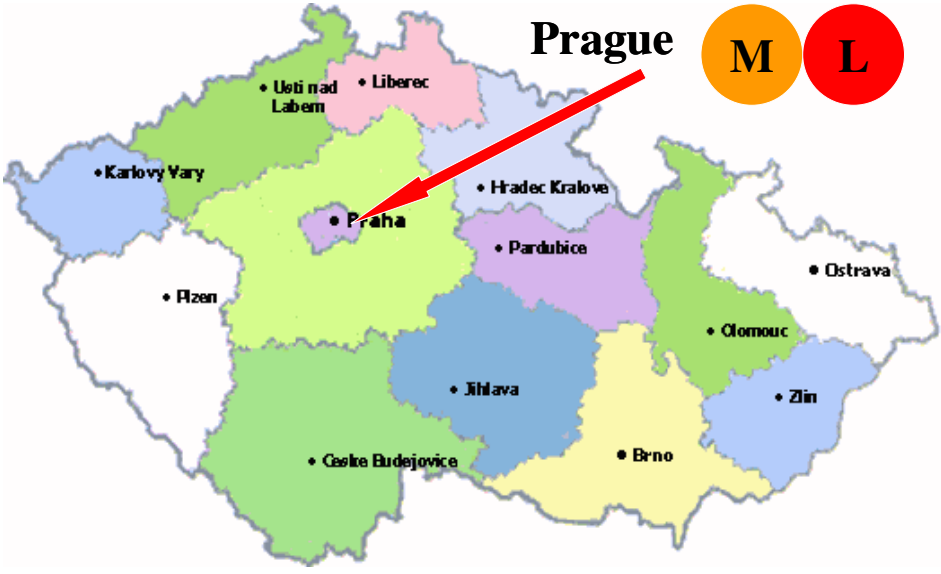


Figure 7.7 Manufacture of rubber and plastic products

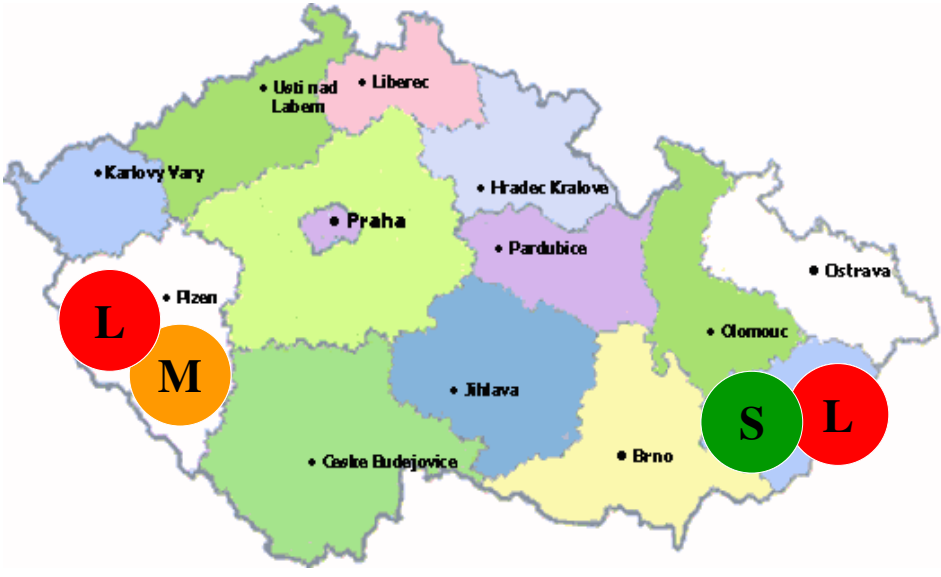


Figure 7.8 Manufacture of glass, china and ceramics

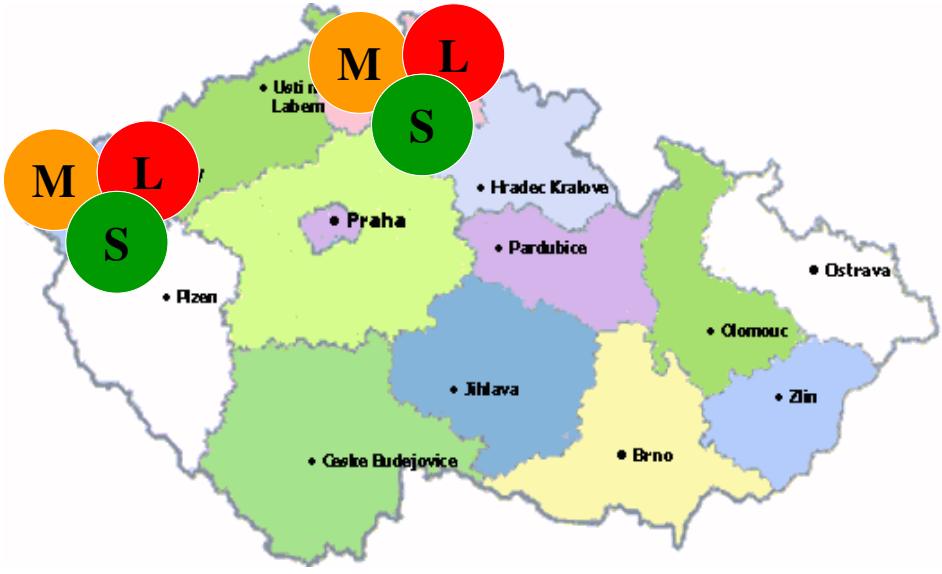


Figure 7.9 Manufacture of basic metals and fabricated metal products

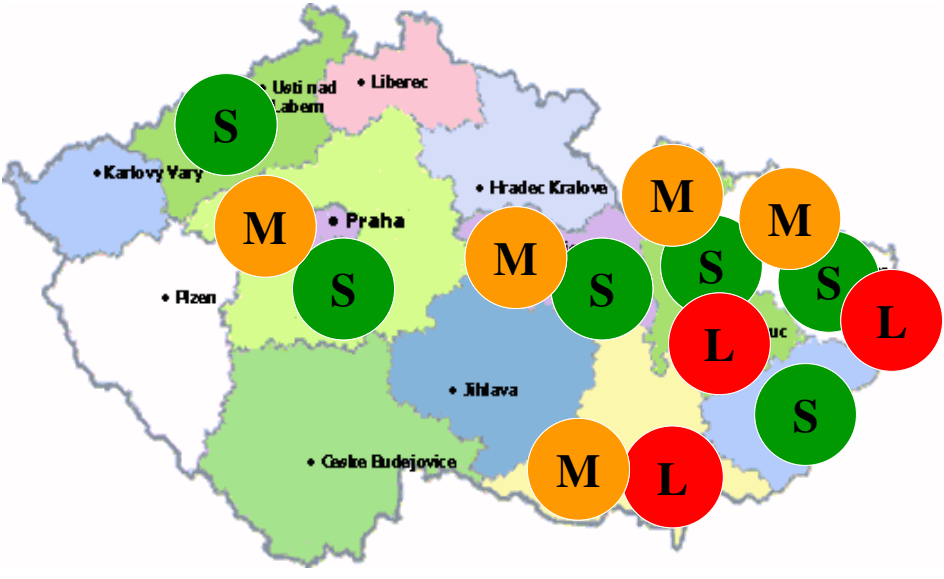


Figure 7.10 Manufacture of machinery and equipment

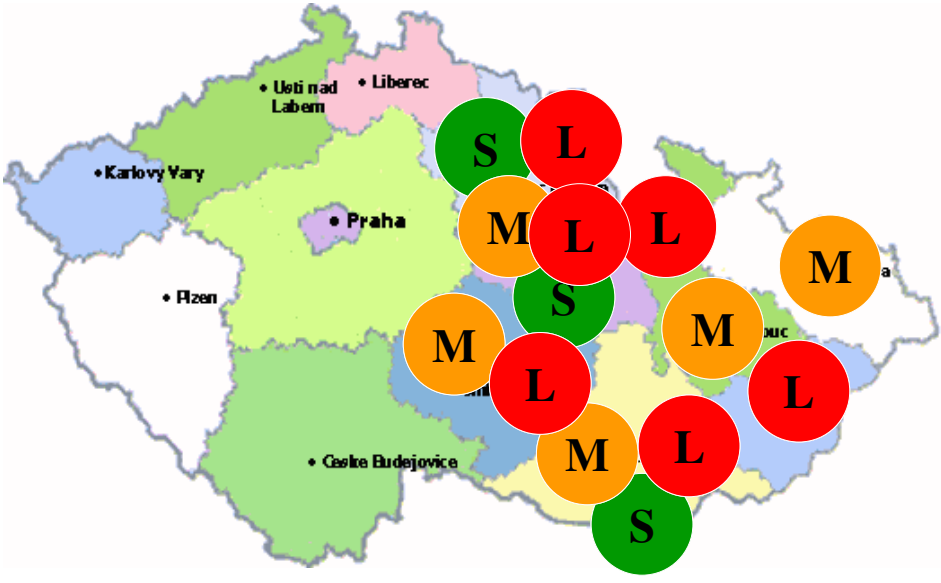


Figure 7.11 Manufacture of electrical and optical equipment

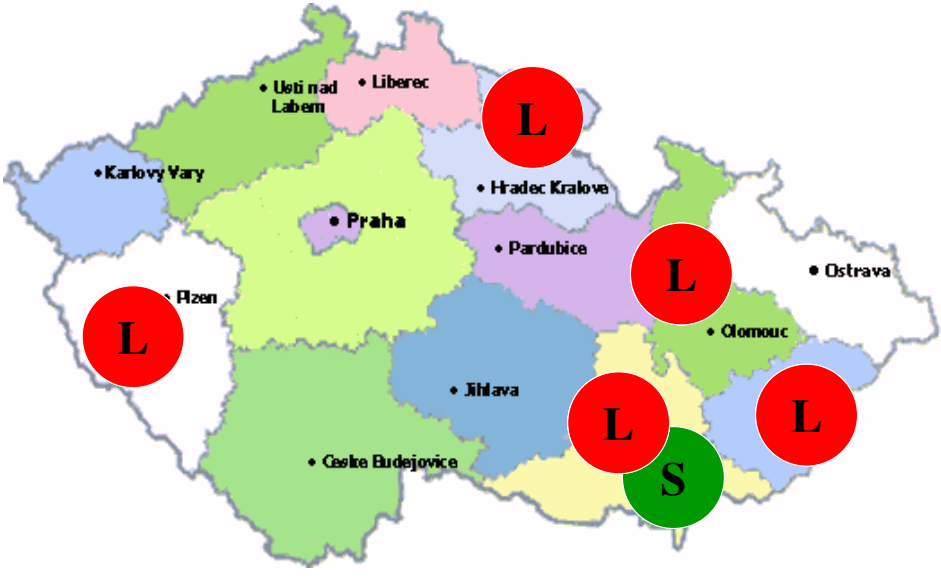


Figure 7.12 Manufacture of transport equipment

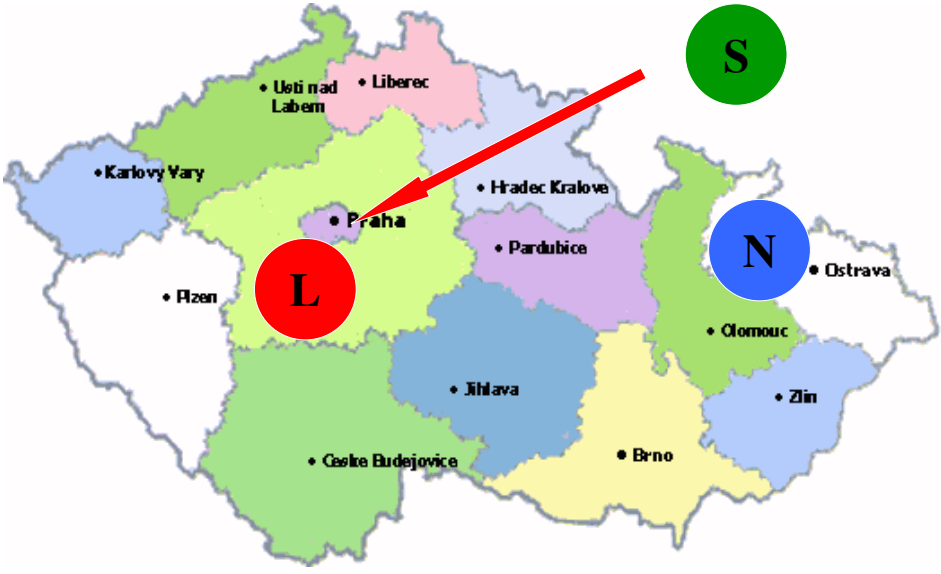


Figure 7.13 Manufacture of furniture and secondary treatment of materials

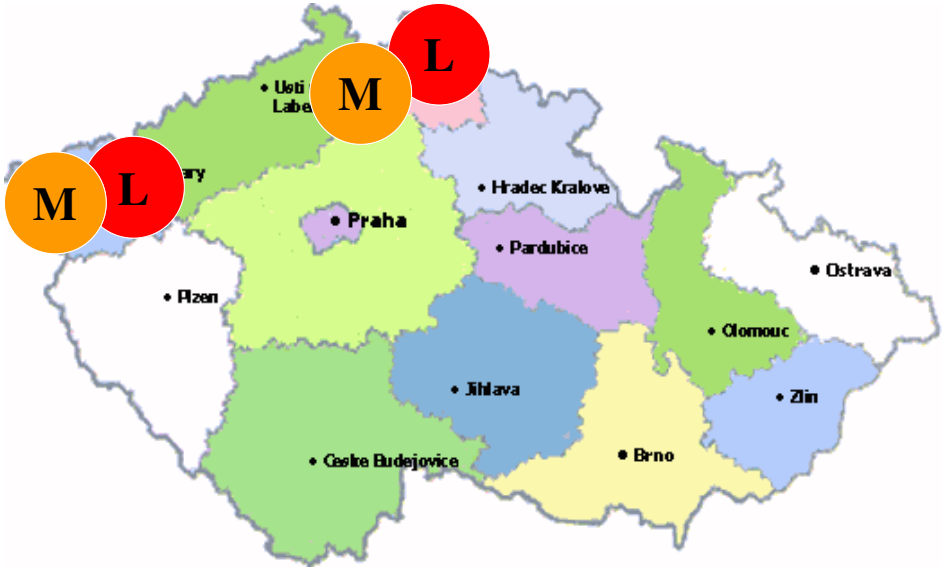
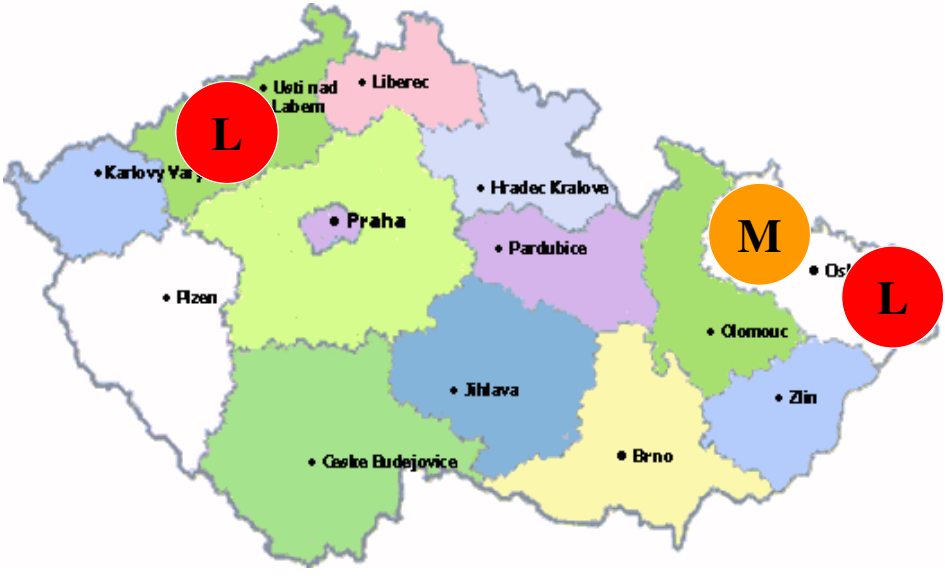


Figure 7.14 Mining and quarrying

Figure 7.15 Electricity, gas and water supply



Cluster types

In our analysis, we have identified three types of cluster, the "brownfield" cluster, building on Czech industry tradition often with the help of foreign direct investment, the "greenfield" cluster, whether foreign- or domestic-driven, and the "bottom-up" cluster, driven by SMEs seeking to respond to competitive pressures.

Brownfield clusters

In the past, the Czech Republic has had particular cluster strengths in the areas of metallurgy and mining, engineering and the textile industry. A typical example is the complex of coal mining, metallurgy and heavy engineering in North Moravia, which has been in existence for more than 150 years. These clusters are currently undergoing a process of transformation in the light of EU membership and globalisation. They can be labelled "brownfield clusters". Individual firm clusters often create multi-clusters on a higher level. An example from the present time are the inter-firm networks around the coal mining company OKD in Ostrava, including enterprises focused on coal mining and processing, and the metallurgical association Hutnictvi Zeleza in Prague, which coordinates the activities of metallurgical enterprises. These multi-clusters very often grow across regional boundaries to create so-called satellite clusters around a main cluster core. Some clusters have a countrywide character, the typical example being a network in the power supply industry composed of the Czech Power Company CEZ and related distributional and other utility companies.

After 1990, foreign investment started to play a role in these clusters. A typical example would be the creation of a country-wide network of suppliers, sellers and other enterprises linked to the SKODA automotive company, operating through a supra-national network of enterprises around Volkswagen group companies. The recent revitalisation of the brewery sector was marked by an entry of the South African Breweries into the Czech capital market, where a beer production and sales cluster reached a dominant market position. Each of these clusters builds on production structures from the times of the centrally-planned economy.

A "brownfield" cluster: The Ostrava metallurgy – coalmining cluster

Following the discovery of coal in the north-eastern part of the Czech Republic, in the Moravia-Silesia region, and the associated development of metallurgy, engineering, transport and construction, a network of enterprises and institutions gradually formed attracting a large agglomeration with about 1 million inhabitants. This agglomeration emerged approximately 150 years ago, with typical industrial cluster characteristics. In the second half of the 20th century, the cluster peaked employing about 200,000 workers and accounting for estimated 7% of GDP. At present, the cluster is undergoing progressive privatisation and has an estimated 60,000 employees and a 3% share of GDP.

A feasibility study has been undertaken to assess how the cluster could be supported by policy and to identify the regional industry groupings that should be targeted (Czech Invest and PE International, 2002). The study pointed to strong potential for the development of a metallurgy-engineering cluster, building on this industry's heritage in the region. At the end of 2002, at the encouragement of the Czech Ministry of Trade and Industry and the Czechinvest Agency, the Moravian-Silesian Engineering Cluster was constituted itself building on the historical roots of the region to compete or co-operate with large transnational corporations. At the beginning of May 2003, about 20 enterprises were involved.

Greenfield clusters

Two trends in greenfield cluster formation can be distinguished. Firstly, clusters form around the sites of large, often multinational firms. An example here would be the influx of major supermarket chains rapidly winning market share at the expense of smaller retailers. Alternatively, the dominant position of some international enterprises may provoke clustering of small firms as a competitive response to new market pressures. An example would be bakeries co-operating when negotiating supply relations with hypermarkets in a region.

A second form of greenfield cluster could emerge through the creation of industrial parks, in particular large industrial zones (about 2 to 4 km^2). A pilot investor, such as an automobile producer moving in to occupy the space can trigger a set of local and regional clusters in its wider locality. An example would be the industrial zone in Kolin near Prague and the prospective zone in Nosovice in the north-eastern part of the Czech Republic. According to a recent report on the business consequences of EU enlargement (McKinsey, 2002), the emergence of a supra-national automotive multi-cluster can be expected, located in Central Europe with a range of 200 km around its possible core in Nosovice within easy reach of Poland, Slovakia and Hungary.

A "greenfield" cluster: The Technological Park of Ostrava

This technological park is fostering a new trend in entrepreneurial network creation with the potential of creating a modern type of cluster whose cross-regional and cross-border operations are made possible by information and communications technology. The Technological Park of Ostrava (TPO) was jointly established by the municipality of Ostrava, three universities and the Agency for Regional Development of Ostrava. It is situated near the VSB-TU Ostrava campus on an area of 100,000 m^2. The municipality of Ostrava rents lots to the firms that want to settle in the TPO for a maximum of 99 years. In addition to infrastructure, real-estate and technical support, enterprises can also tap into the knowledge and information potential of the universities involved. The TPO is intended to have a virtual dimension allowing enterprises and institutions that are physically not situated in the TPO to be connected to it. It is an attempt to create a productive research network of enterprises and institutions in satellite shape. To reach its goals, the TPO decided to participate in the international project ACENET.

The purpose of ACENET is to enable a number of regions with common interests in cluster building methodology and in the fostering of cluster relationships to meet and jointly develop processes and methodologies for the establishment and management of clusters and networks as well as business opportunities for SMEs within and between clusters. The five objectives of ACENET are the fostering of cluster knowledge, regional cluster co-operation, the comparison of regional profiles, the facilitation of communication among network members and lastly, long term commitment for cluster development.

Bottom-up clusters

The third cluster type in the Czech Republic is clusters created by SMEs, developing through a bottom-up process of evolution. The Czech government and regional institutions support these processes of small firm cluster creation in various ways. One example would be the foundation of smaller industrial and technological parks (0.1–0.5 km^2) and the SME support provided by various national and regional programmes. To a certain degree, clustering by SMEs is a spontaneous process, characterised by considerable variation in levels of SME co-operation. As early as 1990, a network of craftsmen around the entrepreneur Cespivo spontaneously emerged. Later, a large SME network in the area of construction arose around the entrepreneur Miroslav Svarc from the town of Benesov near Prague. Some of these clusters (e.g. the Svarc system) were disbanded, as they violated social and health insurance legislation. An example of this type of cluster building is the SME network around the ŠIPKA co-operative in Moravian-Silesian region.

A "bottom-up" cluster: The ŠIPKA co-operative in Moravian-Silesia

The ŠIPKA co-operative is a well-established firm founded as a service, logistics and distributive centre, as well as a franchise currently co-ordinating more than 100 small and medium-sized quality businesses and shops with very good business ethics. The network is still growing by gaining new suppliers, thus creating a very dynamic formation that can be labelled an enterprise cluster. It was created as a direct reaction to the entrance of supra-national hypermarkets (Kaufland etc.) into the regino of Ostrava at the end of the last century.

The ŠIPKA co-operative was founded in 1998 with the purpose of collectively purchasing goods from manufacturers and suppliers in large quantities for the best price. The co-operative guarantees negotiated conditions of payment and delivery to its members, promotes common business policy and surres the legal protection of members. It focuses on development of production in its service area and supporting employment in the region. Members of the co-operative utilise the advantages of common purchase, sale, marketing and advertising. The network strategy of horizontal and vertical linkage is used in production and trade and vertical acquisitions are encouraged. A special effort is devoted to achieving discipline of payment of business owners while at the same time ensuring that those business owners will be able to meet their respective obligations towards banks and suppliers. The overall objective is to create a label under which the ŠIPKA trademark procures trust for buyers and sellers alike.

In May 2003 the co-operative counted 91 members.

Cluster policy

Many activities exist in the Czech Republic that are directly or indirectly connected with support for SME development in general and the creation of entrepreneurial co-operation in particular. The most important programme is the KOOPERACE ('co-operation') programme, implemented through the Czech-Moravian Bank of Guaranty and Development, which aims to link cluster development and support for SME associations. The approach is to provide a subsidy allowing an association of businesses to recover up to 50% of the cost of its co-operative and networking activities up to a maximum of EUR 90,000. Through this approach KOOPERACE supports the creation of various SME associations, such as networks, supply-chains and clusters.

According to the Ministry of Industry and Trade of the Czech Republic, as of April 2003 and from its inception in 2000, 75 applications had been granted support and EUR 7.4 million disbursed. Ten SME associations were supported in 2000, 26 in 2001 and 39 in 2002.

Some examples of co-operative SME networks supported by the programme are: Health instruments (a project focused on improving the marketing and buying position of associated firms); Hotels (an association supporting a unified strategy for advertisement and promotion); Medical and pharmaceutical equipment (a co-operation to improve conditions for buying materials and equipment, particularly dental, and negotiate favourable prices for medicines); Toy production (co-operation in marketing); Manufacture of furniture and other crafts; health food (promotion of specialised sellers); Association in co-operative societies (to achieve better supply as well as better conditions for the purchase of cash registers); consulting (an association of entrepreneurs and firms, e.g. tax advisors and solicitors, aimed at better informing potential clients of services available).

Groups of co-operating SMEs formed particularly in Prague and its surroundings (22 projects) and in Olomouc (Northern Moravia) and Central Moravia (19 projects), in the period from 2000 to 2002. There were relatively fewer projects in Southern Moravia (9 projects), in Northern Moravia and its surroundings (8 projects) and in Western Bohemia (6 projects). Only one project came about in Northern Bohemia. The surprisingly low number of projects in Eastern Bohemia, Southern Bohemia and in the Vysocina region on the border of Bohemia and Moravia is especially striking.

It is necessary to point out that most clusters (or other forms of enterprise co-operation) in the Czech Republic have an informal and unofficial character. Clusters are not systematically and statistically surveyed and monitored. SME clusters and networks supported by the national KOOPERACE programme therefore constitute an exception.

There is no one particular law or policy explicitly aimed at cluster creation in the Czech Republic. Rather, associations of firms, networks of enterprises and business alliances can access various forms of support. The overall government approach to cluster development is one of creating the right framework conditions to set clustering processes in motion. The Czech Ministry of Industry and Trade in conjunction with the Czech Ministry for Local Development play the main role in this regard, in co-operation with other Czech ministries, the Czechinvest Agency, the Agency for Enterprise Development and the Centre for Regional Development. Additional measures include the activities of regional development agencies and the use of subsidies to support the construction of industrial zones and technological parks.

In addition to creating the right framework conditions, encouraging SME associations of all kinds and supporting the creation of industrial and technological parks, the Czech government's intervention to reform the

metallurgy, heavy engineering and power industry has an indirect impact on cluster building. An example would be the establishment of the OSINEK special purpose vehicle, which is contributing to the transformation of the steelworks sector in the Ostrava agglomeration. A side effect of this government activity is the creation of a network of co-operating metallurgical and engineering enterprises improving their competitive position prior to privatisation.

At the end of 2002, activities aimed particularly at supporting clusters in the Czech Republic regardless of enterprise size were shifted to the Czechinvest Agency. Strengthened by a merger with some smaller agencies, Czechinvest has been well positioned to fulfil its government mandate to attract and embed foreign direct investment for the benefit of both foreign and domestic industry.

International Links

Given its strategic location in Central Europe, the Czech Republic has a high international enterprise cluster potential. Firstly, strong cross-border networks already exist at an informal level linking the Czech Republic with the economies of Poland, Slovakia, Germany and Austria, mainly concerning cross-border trade. As an illustration of the thriving commercial links in the "grey economy", it is sufficient to visit any market in the border areas between for example the Czech Republic and Poland. After admission of the Czech Republic, Slovakia and Poland to the EU in May 2004 and once some special clauses concerning for example the free movement of labour have expired, current informal relations will become legal. Secondly, formal cross-border co-operation is greatly encouraged. For example, Euroregions fostering co-operation among border regions have been created, offering assistance to small and medium-sized enterprises with cross-border links.

It is conceivable that EU enlargment and legal harmonisation will lead to the emergence of cross-border central European SME clusters including Czech firms. International clustering is most likely in the north eastern part of the Czech Republic linking the cities of Ostrava (Czech Republic), Katowice (Poland) and Zilina (Slovakia); in the south eastern part of the Czech Republic linking Brno (Czech Republic), Vienna (Austria), Budapest (Hungary) and Bratislava (Slovakia); in the south western part of the Czech Republic bordering on Austria and Germany; and in the north western part of the Czech Republic bordering on Poland and Germany.

In addition to organically growing cross-border clusters involving SMEs, EU membership is likely to accelerate the cluster phenomenon,

driven by large multinational firms such as the car industry, producing components in several new member countries.

Special attention needs to be paid to the north eastern part of the Czech Republic (the Moravia-Silesian region). This could emerge as the most dynamic Czech region with regard to the creation of transnational clusters given its convenient location bordering on Poland and Slovakia in the transport and geographic centre of gravity of the central European space, linking western and eastern as well as southern and northern Europe. The region has enormous potential for a transportation cluster of international significance. The 'magic' triangle formed by the three Czech towns towns of Bohumin, Jablunkov and Pribor holds the potential for a transport cluster combining automobile, railway, air and water transport. This cluster could jump-start development of other clusters linked to industry, trade and services not only in the Czech Republic, but also in the surrounding regions of southern Poland (around Katowice and Opole) and western Slovakia (around Zilina). Although this region currently appears to be very problematic, its development is expected to transform the whole region over the coming decade.

Areas for improvement

We recommend continuing the current approach of considering cluster formation in the Czech Republic as a bottom-up phenomenon that government cannot orchestrate but is able to support by building on existing programmes in the field of SME support and regional development. The regional nature of clustering needs to be taken more into account through these programmes.

In this respect, it is vital to review and reformulate the content of the KOOPERACE programme supporting SME associations in order to reinforce the sectoral and regional nature of the associations supported. A second useful measure would be to foster active labour market measures inspired by EU Territorial Employment Pacts to encourage cluster building with SME involvement. Another option would be to encourage the formation of genuine regional clusters based on technology and industrial parks. When considering the creation of large industrial zones and the attraction of foreign direct investment to specific regions and sectors, the interests of small and medium-sized firms need to be taken into account to mediate negative impacts due to power asymmetries. An important measure would be to encourage economic competition so as to prevent the creation of monopolies, for example in the automobile industry, breweries and energy supply to name just a few. Also with respect to the regional nature of

clustering, cross-border co-operation needs to be encouraged by supporting the activities of regional associations of municipalities and entrepreneurs.

Special cluster agencies or working teams at regional level could fulfil a co-ordinating role ensuring service delivery to clusters, supervising the creation of entrepreneurial parks and industrial zones, attracting and embedding inward investment to the region, strengthening firms inside clusters, fostering human resource development in existing and emerging clusters and building and sustaining cross-border co-operation with neighbouring regions.

Also important are concrete steps to foster co-ordination among key governmental actors in cluster building, such as the Ministry for Regional Development, the Ministry of Industry and Trade and key institutions such as the investment promotion agency Czechinvest. It would also be advisable to foster ongoing exchange of information with organisations such as the EU, OECD and UNIDO to increase awareness of international cluster experiences and best practices.

In an effort to strengthen cluster analysis and evaluation, the Czech Central Statistical Office should closely monitor cluster development and review cluster evidence on a regular basis. Each network and cluster receiving financial or non-financial support from the public sector should comply with its statistical reporting duty.

Bibliography

European Commission (2002), "Project Enterprise Clusters/Networks – Definitions", Enterprise Directorate-General, European Commission, Brussels.

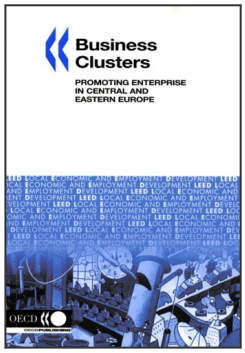
McKinsey (2002), "Business consequences of EU enlargement. Major change or non-event?"; contribution to the European Business Summit, McKinsey&Company

Mikoláš, Z. (2002), "Globalisations, restructuring and integration of enterprises – role of the small and medium-sized enterprises", in R. Borowiecki and A. Jaki (eds.), *Restructuring and Development Processes of Enterprises and their Value Creation*, Pollen, Cracow.

Endnotes

11 Zdenek Mikolas is especially grateful to Josef Kasic at the University of Ostrava for helping with translation and the making of the cluster graphs.

12 Full description of Czech NACE sectors: A (01) Agriculture. C (10-14) Mining and quarrying. DA (15-16) Manufacture of food products, beverages and tobacco. DB (17-18) Manufacture of textiles and textile products. DC (19) Manufacture of leather and leather products. DD (20) Manufacture of wood and wood products. DE (21-22) Manufacture of pulp, paper and paper products, publishing and printing. DF (23) Manufacture of coke and refined petroleum products. DG (24) Manufacture of chemicals, chemical products and man-made fibres. DH (25) Manufacture of rubber and plastic products. DI (26) Manufacture of non-metallic mineral products (glass, china and ceramics). DJ (27-28) Manufacture of basic metals and fabricated metal products. DK (29) Manufacture of machinery and equipment. DL (30-33) Manufacture of electrical and optical equipment. DM (34-35) Manufacture of transport equipment. DN (36-37) Manufacture of furniture and secondary treatment. E (40-41) Electricity, gas and water supply. F (45) Construction. G (51-52) Wholesale and retail trade. H (55) Hotels and restaurants. I (60-63) Transport storage and communication. N (85) Health and social work.



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