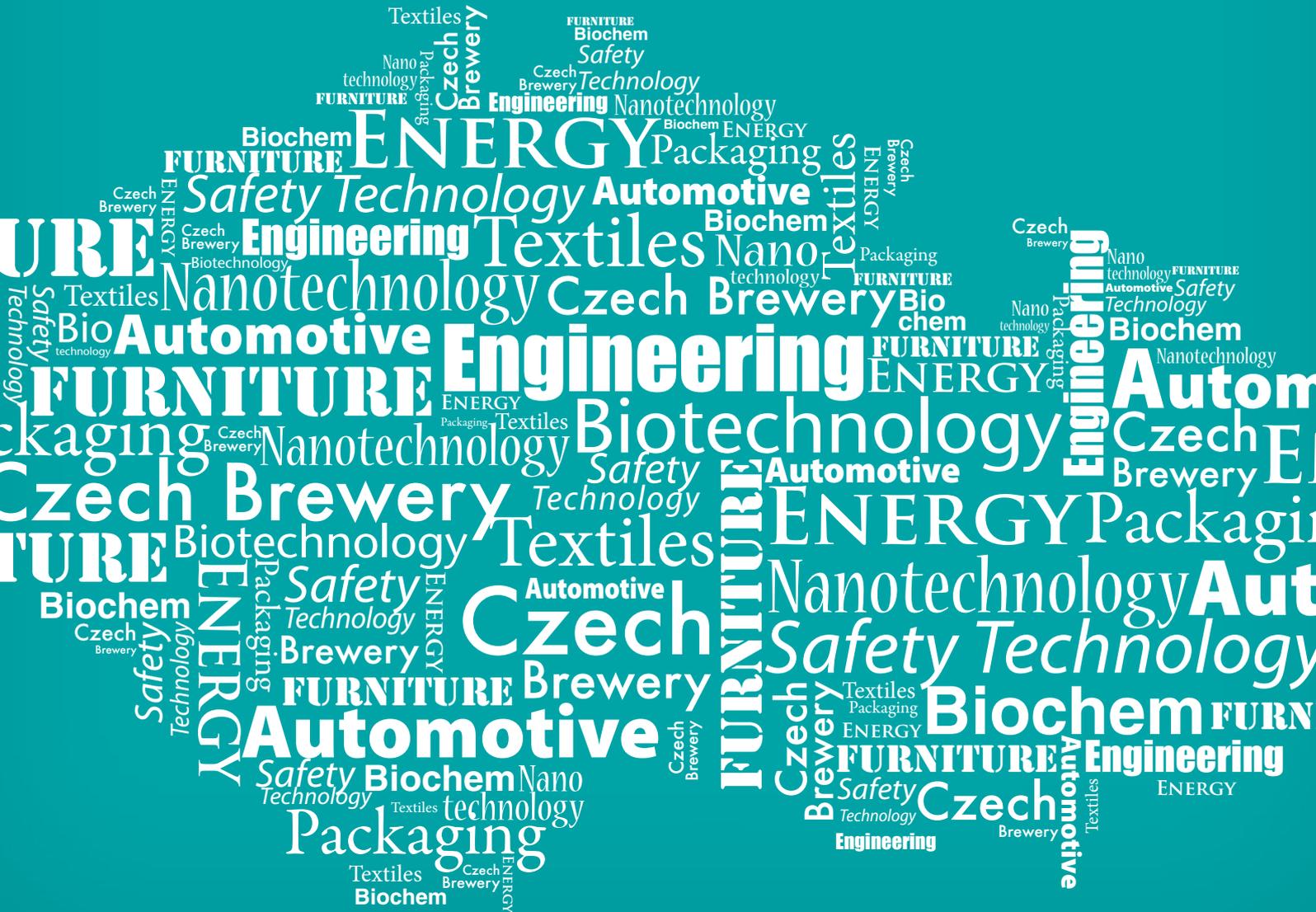


Cluster Organizations in the Czech Republic



ClusterCOOP

This project is implemented through the Central Europe Programme co-financed by ERDF



MINISTRY OF
INDUSTRY AND TRADE



CZECHINVEST
Investment and Business Development Agency



**CENTRAL
EUROPE**
COOPERATING FOR SUCCESS.



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND

Ladies and Gentlemen,



I would like to present to you the catalogue of Cluster organizations in the Czech Republic. The catalogue highlights the achievements of the broad community of businesses, RTOs, universities and other support and associated institutions in their collaborative efforts of recent years. The continual improvement of relations between these important actors is crucial to the development of competitive advantage and to the whole environment of enterprises. When not functioning properly, it has been generally recognized as a significant hindrance to innovation. The Ministry of Industry and Trade together with the CzechInvest agency have therefore targeted this area with a number of support actions both in the previous and current programming periods.

The project ClusterCoop has presented a great opportunity to coordinate these actions with other government authorities in the CEE region and strengthen linkages between clusters therein. It also opens up potential to interlink national support programmes in the system of impact measurements, to enable the support of transnational cluster projects via national programmes, but also to encourage the transnational cooperation of clusters even without public support, but in a suitable and shared framework of conditions.

We hope that the catalogue of Czech cluster organizations with the highlighted best practices will serve also as a starting point to further contact and collaboration.

Martin Kuba

Minister

Ministry of Industry and Trade CR

Cluster Development in the Czech Republic

The cluster concept was first employed in the Czech Republic from the initiative of the Ministry of Industry and Trade and the implementation agency CzechInvest in 2002 to help with the reconversion of the lagging-behind Moravian-Silesian region. The feasibility study of the industrial groupings led to the establishment of the first cluster organization – The Moravian Silesian Engineering Cluster in 2003.

The awareness building efforts were rounded off by The National Cluster Study, a statistical analysis and data assessment of the regional potential for cluster development and The National Strategy for Cluster Development 2005 – 2008 adopted by the Czech government. This document defined the strategic objectives, measures and resources to support cluster development and embedded clusters among the national and regional tools for boosting competitiveness.

The main principles pinpointed by the Strategy were: helping SMEs to identify opportunities for cooperation in order to remove the traditional barriers of growth, such as access to finance and information technologies, own research and development or launching products to new market; and formation of collaboration networks focused on research and development and innovation leading to new products and processes.

Programming and support

Operational Programme Industry and Enterprise 2006 – 2008

The support of clusters was first introduced in the programming period 2004 – 2006 as part of the Operational Programme Industry and Enterprise managed by the Ministry of Industry and Trade. The programme Clusters provided the backbone for the formation of clusters and the establishment of cluster organizations as separate legal entities. The programme was aimed at two phases of cluster development – 1) the mapping of potential cluster initiatives and 2) the initial support for the establishment and further development of the cluster organization.

Operational Programme Enterprise and Innovation 2007 – 2013

The new programme Cooperation shifted the emphasis on the long-term sustainability of the cluster initiatives. The support was entwined with the support of R&D&I. Cluster projects had to be based on the cooperation in more areas, while centred on the investment in R&D infrastructure, e.g. setting up of cluster research centre with common measurement, testing and laboratory equipment, as well as support for collective research projects. R&D projects tend to show larger commitment of cluster members and a longer term vision as opposed to purely marketing or networking projects. The programme also introduced support for the participation of cluster in transnational R&D projects (participation in the ERA-NET project Cornet).

Operational programme	Cluster supporting programme	Allocation (in EUR)	Nr of applications	Nr of supported cluster projects	Total amount of support (in EUR)
Operational Programme Industry and Enterprise 2004 - 2006	Clusters Mapping	10 000 000	68	41	1 260 302
	Clusters Establishment and Further development		18	12	7 920 605
Operational Programme Enterprise and Innovation 2007 – 2013	Cooperation Clusters 1st call	40 000 000	30	17	22 817 741
	Cooperation Clusters 2nd call	30 000 000	20	10	10 464 956
	Cooperation Clusters 3rd call	20 000 000	43	n/a	n/a

Results of cluster development

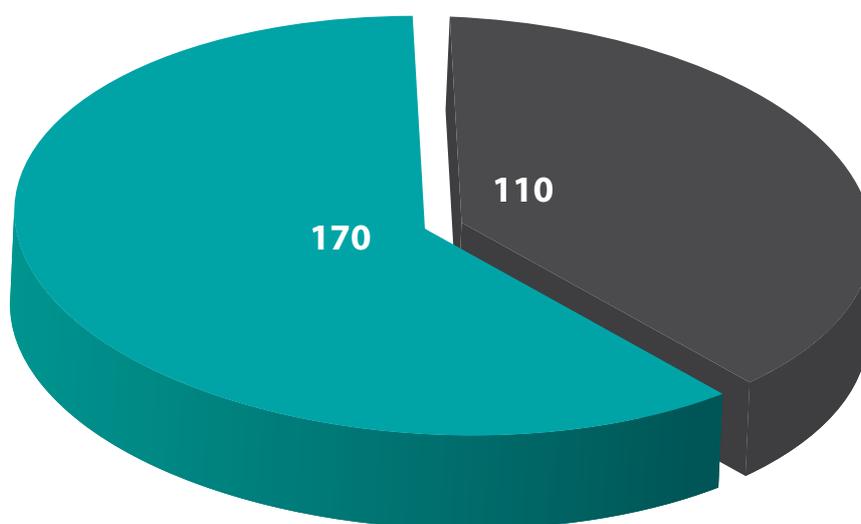
As a result of the cluster development efforts, around 60 cluster organizations have been established in the Czech Republic so far. Formalized conditions for the organizations seeking support are the memberships of at least 15 members (the current average is 30 members, max. reaching 60), at least 60% being SMEs, inclusion of a university and/or a research institute is also a condition.

From the regional point of view, there were strong showings from several regions (Moravia-Silesia, South Moravia, Liberec, Hradec Kralove regions), whereas other regions have lesser activity reflecting the relative strengths of industrial sectors, but also the presence of strong leadership or management of the cluster formation process.

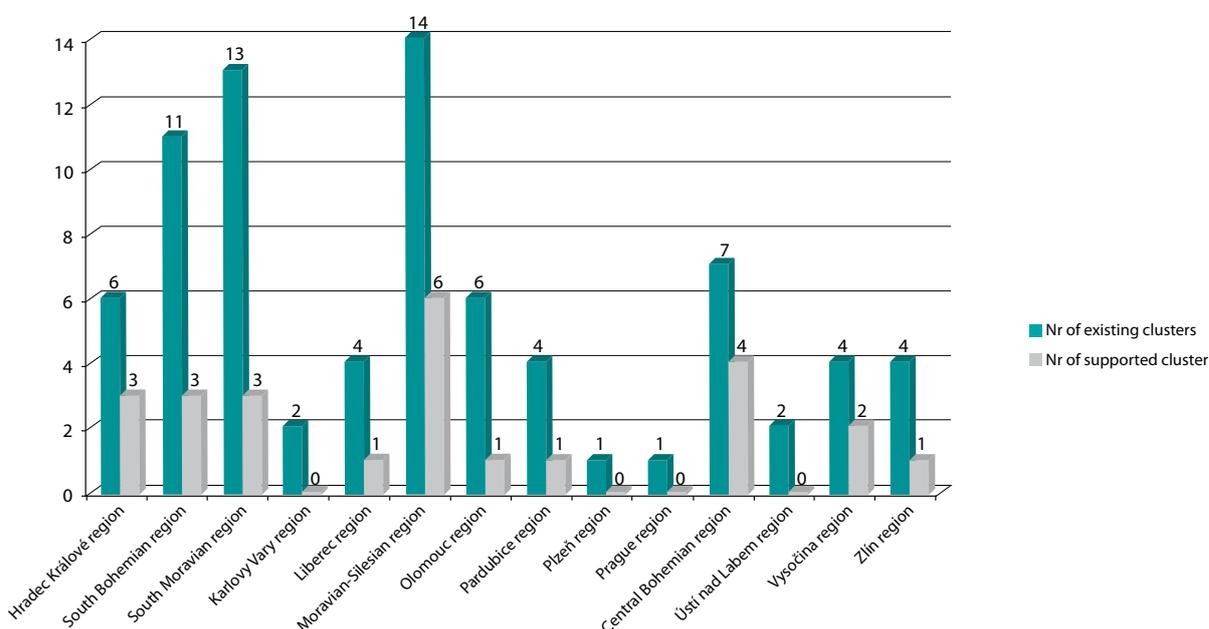
Strong clusters emerged in processing industries like machinery, precise and general engineering, technical textiles, plastics, packaging or wood; in various technology areas like environmental technologies, biotechnology, renewables; nanotechnology or ICT.

Well-functioning clusters already contribute to the Czech innovation system through the significant number of involved universities and RTO's, their participation in innovation and R&D projects or economic indicators like investment into R&D and the establishment of common development laboratories boosting the competitiveness of SMEs. Tangible results can be also seen in the creation of knowledge partnerships with industrial high schools or creation of expert support centers with academics from regional universities.

Joint cluster projects in OPEI



Nr of non-R&D projects - promotion/ market research/ exhibits/ human resources development
 Nr of joint R&D projects carried out by clusters - establishment of R&D centres/collective research



The most developed clusters have reached key visibility on the international level and in the EU cluster collaboration platforms (e.g. in advanced textile materials). Very important linkages were formed e.g. to the research institutes in Germany, but also with enterprises in Slovakia and Poland (e.g. automotive and aviation industries). Clusters strengthened their presence on international markets such as in South America or Iraq on international fairs or targeted business missions (e.g. hydro-energy projects).

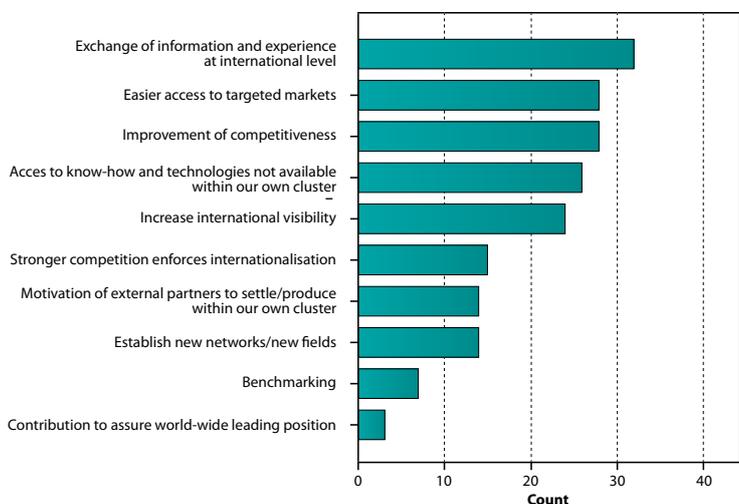
Key policy issues and implications

Currently there is no overarching cluster policy, however clusters are recognized as tools for improving cooperation across the triple helix and boosting regional growth in national policy documents like the National Innovation Policy or The Strategy of International Competitiveness, which put emphasis on the developed cooperation networks of enterprises, which facilitate the creation of knowledge and capabilities for entrepreneurs across the value chains not only in the high-tech companies, but also in medium tech and low tech companies.

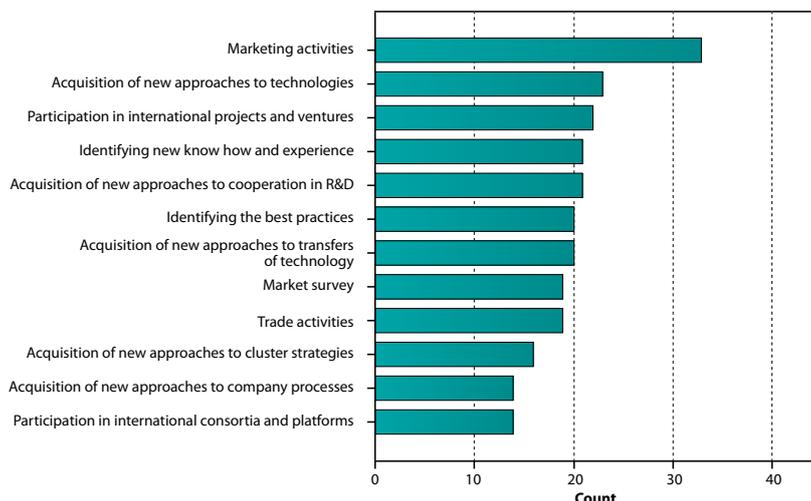
Further development of the cooperation networks in the future needs to play out even more on the international level. This should also boost the interdisciplinary character of cluster initiatives, which has been broadly recognized as conducive to the most successful innovations and emerging sectors with highest growth potential.

The most recent survey carried out under the ClusterCOOP project evaluated internationalization activities of cluster organizations in the Czech Republic and their economic impacts. The character and intensity of the evaluated internationalization efforts may be drawn in connection with a relatively young history of clusters in the Czech Republic. A number of them are in the phase of domestic delimitation of their sphere of activity and the international horizon represents a higher qualitative objective for them. However, due to the extraordinarily high degree of openness of the Czech economy and especially of its processing industry, cluster organizations are naturally led to apprehend the international dimension of their activities.

The survey shows that apart from a strong emphasis on marketing activities, which clusters regard as a tool for branding, the main incentive for their internationalisation is access to technologies which they can utilize and apply in production. For the clusters with a larger degree of advancement, the third most appreciated and needed internationalisation activity is the participation in international projects.



Main reasons for the internationalisation of the cluster (identified at 33 organizations)



Internationalisation activities of cluster organizations

ClusterCOOP Project

Innovation is a crucial driving force for economic growth, relevant to every economic sector. Europe needs to improve its performance in innovation to withstand comparison with competing global partners. Clusters provide conditions conducive to innovation, specifically “open innovation” promoting new ideas. They can leverage this potential and increase their excellence if they create linkages with other clusters exploiting complementarities.

Creating and enhancing framework conditions for the effective cross-regional and cross-border cooperation of clusters in CE requires joint actions by policy makers. In many cases, the regulatory level is exactly the area which CE cluster experts see as the major bottleneck for successful cluster cooperation. Partner countries/regions identified similar CHALLENGES regarding transnational inter-cluster cooperation:

- 1) There are little synergies among national/regional cluster policies, and the current framework does not solicit cooperation.
- 2) There is a need to identify industries which, through cluster cooperation, could become a driving force for national/regional economies.
- 3) The current level of support for transnational cooperation is much lower than desired.

ClusterCOOP partners have set the GENERAL AIM to create and enhance the framework conditions of efficient transnational cooperation between clusters in the countries of CE. Their aim is to help clusters better exploit their innovation capacities and improve their development and effective cooperation so that their increased competitiveness improves the position of the CE Region in the European Economic Area. Taking into considerations the common challenges described above, PPs defined 3 SPECIFIC OBJECTIVES:

- 1) Enhance existing and create new synergies among national/regional cluster policies and funding frameworks.
- 2) Facilitate emerging industry development through cross regional cluster cooperation.
- 3) Promote the flow of information between clusters, their associations or networks and provide a common knowledge base for clusters of CE to facilitate their networking and cooperation.

The outputs of the actions of the 3 thematic work packages will directly contribute to the achievement of these objectives through the MAIN PROJECT RESULTS:

- ▶ An integrated collection of POLICY MEASURES AND SOLUTIONS (regulatory, legislative and institutional), which can effectively support the cross-regional and transnational cooperation of clusters.
- ▶ ACTION PLANS, which will be an effective set of policy measures tailored to the different policy environment of PPs, and which can be incorporated in national/regional/local decision making, hence contributing to the sustainability of project results.
- ▶ An implementation-oriented proposal for alignment and integration of different regions and sectors of partner countries, and policy tools for boosting the EMERGENCE of these industries through cross-regional cluster cooperation.
- ▶ Extended knowledge of clusters on the possibilities and framework of transnational cooperation with the help of CLUSTER CONTACT POINTS and VIRTUAL INTERACTIVE PLATFORM.

ClusterCOOP PARTNERSHIP includes 10 CE partners in 5 new and 2 old member states. The core partnership is composed of national, regional and local public authorities, national public agencies, as well as public national knowledge providers. Complementary to PPs, three national ministries (Germany, Poland and Slovenia) are involved as associated institutions. Thus the project involves all relevant policy makers in all partner countries competent in cluster cooperation and development. The partnership represents a horizontal and vertical mix that can best address project aims, achieve and maintain project results.



Registered Office

U Jezu 525/4, 460 01 Liberec

Legal form

Civic association

Date of establishment

March 2006

Contact

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Mission: ensure coordination and cooperation primarily among textile and clothing companies, research and development institutions, universities and other organisations. The purpose is to create optimum conditions for technology transfer, for higher-level innovation and business development in the field of research, development and manufacture of technical textiles, including materials and semi-finished products for the production thereof.

Business focus: 13000 - Manufacture of textiles; 13960 – Manufacture of other technical and industrial textiles; 72190 – Other research and technical development on natural sciences and engineering.

Number of cluster members: 23

Activities: the cluster's activities are primarily focused on projects in the areas of research, development and innovation, human resource development and promotion – to develop a technology for creating multi-layer textile mesh structures and to provide a basis for defining the technical requirements for building a laboratory line to be used for the investigation of special fibres for textile manufacture. The cluster's activities also include the study of issues related to optimising the utility properties of textile products to be used in wellness and spa facilities. The newly developed fabric is protected by a utility model. The cluster also focuses on efforts to develop filtering fabrics resistant to UV radiation; innovate clothing textile products, protective clothes, bed linen and geotextiles; analyse and innovate the technologies of heat permeability measurement; innovate fire-proof technical textiles; develop value-added coated textiles; promote the outcomes of the cluster's joint activities at trade fairs and shows.

More information about the cluster: Holder of the 2006 'Cluster of the Year' title; projects in Clusters and Cooperation programmes. Participation in the CORNET international scientific and research project; projects under the 7th Framework Programme, the Leonardo da Vinci and INTERREG III Programmes, the Education for Competitiveness Operational Programme, Cross-border Cooperation Programme under Objective 3, and Europe INNOVA Programme. Nominated for the European Business Award 2012/13 in the "UKTI Award for Innovation" category.

Cluster outputs - examples:

Laboratory equipment to make textile mesh is the outcome of the project, aimed at developing and build a laboratory line able to produce a fabric in the form of textile mesh in combination with stratification for making special membranes, conductive textiles, and protective textiles containing mineral and metal fibres. The lab line is used for checking the quality of the produced mesh, depending on the material used and on its geometric and mechanical properties. The laboratory equipment serves as a model line, whose design can be varied to meet the requirements of textile companies. The project was carried out in 2009 – 2011, involving seven members of the cluster (Fig.).

A patented technology is the outcome of another project, aimed at optimising the utility properties of textile products to be used in wellness and spa facilities. Thanks to its quality parameters, the new fabric can bear the QZ – Czech Quality label. The project was carried out 2009 – 2010 and involved five members of the cluster.





Together for Automotive!

Mission:

create conditions and support cluster members' competitiveness to ensure a sustainable development of the region.

The cluster carries out this mission by implementing the **vision** to become an integrator for the companies, educational institutions, research organisations and other stakeholders whose activities support the development of the automotive industry in the region.

The **key values** underlying the cluster's activities include:

- ▶ People, their knowledge and skills;
- ▶ Trust-based cooperation;
- ▶ Innovativeness and flexibility;
- ▶ Mutual benefit.

Business focus: 29320 – Manufacture of other parts and accessories for motor vehicles; 22100 – Manufacture of rubber products; 22200 – Manufacture of plastic products; 71200 – Technical testing and analyses;

Advising and consulting, preparing expert studies and opinions; 72190 – Other research and development on natural sciences and engineering; Out-of-school education and training, lecturing.

Number of cluster members: 61

Activities:

Information services for members.

Development and coordination of innovative approaches in the field of human resources: Training the people and developing their competences in **business relationships**; Saving money and opening up more scope for new **research and development markets**; Testing products and supporting innovation.

More information about the cluster: The Moravian-Silesian Automotive Cluster is a much sought-for partner for international projects. Examples include, for instance, participation in the **AutoNet** projects, involving nine partners from Poland, Germany, Czech Republic, Slovakia, Hungary, Slovenia and Italy, or the **CERADA** project, which produced a catalogue, mapping in detail the profiles of scientific and research institutions in the automotive and aeronautical industries in the region of the Czech Republic, Slovakia and Poland, or the **Safe DRIVE** project to develop low-voltage series hybrid drive for large-scale use in the automotive industry, financed under the 7th Framework Programme.

Cluster outputs - examples:

Experimental noise laboratory to test products for emitted acoustic noise. The laboratory is used by all cluster members as well as customers outside of the clusters (Fig.)

Laboratory to test the performance of thermoprocessing equipment (e.g., car air conditioning systems), including data processing and optimisation proposals.

Mobile laboratory to measure noise in manufacturing facilities and to make adjustments to reduce emitted noise to levels required by sanitary standards.

Laboratory to test parts and their connections exposed to pulsating stress in combination with thermal stress. Ergonomical laboratory to support solutions to ergonomics-related issues.



Registered Office

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708 00 Ostrava

Legal form

Civic association

Date of establishment

September 2006

Contact

Ladislav Glogar, Cluster Manager
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www.autoklastr.cz

Implementation of powder injection moulding (PIM) for use in the automotive industry. Purchasing Centre to make use of synergistic effects and electronic auctions in joint purchasing. Expert Centre, developing cluster members' knowledge potential and know-how in specific areas and helping to handle emergency situations. Auto Academy for businesses – systematic education and training to enhance the skills and qualification of cluster members' employees. Auto Academy for schools – teaching materials for secondary schools and technical colleges in the areas of leadership, lean processes, logistics, project management, innovation.





Registered Office

Husova 114, 55101 Jaroměř

Legal form

Cooperative society

Date of establishment

November 2005

Contact

Petra Šišková, Cluster Manager
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www.klastromnipack.cz

Mission: The mission of the OMNIPACK Cluster is to enhance the competitiveness and support economic growth of the businesses operating in the sector of packaging and logistic services through supporting and encouraging their innovation activities. The core principles of this mission include the implementation of research and development results in cluster members' manufacturing environment, strengthening of the links to scientific, research and educational institutions, and systematic education of cluster members.

Business focus: 22200 – Manufacture of plastic products; 25620 – Machining; 17200 – Manufacture of paper and paperboard products.

Number of cluster members: 52

Activities: focused primarily on innovation within the OMNIPACK packaging system – a range of studies aimed at finding technical solutions to innovate the various components of combined systems, including the defined conditions for successful implementation of innovations in practice. The unique OMNIPACK packaging system unifies the technical parameters and processes for the cluster's development projects. The cluster's development centre is being expanded and the effectiveness of cooperation among cluster members is being improved through the intensive utilisation of the ICT. The cluster's activities also include marketing and promotion, development of human resources, joint purchasing and other areas of business cooperation, developing social and business standards, optimising the logistic processes etc.

More information about the cluster: The cluster won the Cluster of the Year award in 2005 and 2007. The Packaging Manufacturers' Cluster is certified in accordance with the ČSN EN ISO 9001 standard (quality management certification) and ČSN EN ISO 14001 standard (Environmental Protection Certificate under ISO 14001:2004).

Cluster outputs - examples:

The cluster has built a unique testing and development centre, comprising the technologies for new package development and for fixation designing, as well as technologies for the determination and measurement of mechanical stress exerted on the package and on the product inside the package, and a testing facility for checking the quality of designed packaging system construction with respect to the requirements for the protection of the packaged products. The centre is equipped, for example, with the Rapid Prototyping laser sintering technology (EOSINT), a 3D printer and 3D scanner, a system for load simulation in the design phase, or a modular software system for the optimisation of load distribution. The technologies are versatile and as such they can be used not only in packaging but also in areas such as plastics, mechanical engineering, electrical engineering etc., as indicated by the fact that many companies operating in related industries wish to cooperate with the cluster.



Mission: support medicinal chemistry and chemical biology and associate all those interested in this sector.

Business focus: 20000 - Manufacture of chemicals and chemical products.

Number of cluster members: 25

Activities: The MedChemBio cluster has built and is operating a GMP testing laboratory accredited by the State Institute for Drug Control. The laboratory offers services related to the quality control of medical products, active ingredients, primary raw materials and intermediate products. The MedChemBio cluster supports the research activities of its members in studying and developing molecular diagnostics on the basis of the polymerase chain reaction in real time, and proteomics. It is also involved in the following efforts: research into new synthetic procedures of preparing and isolating commercially interesting chemical compounds; developing procedures to expand the laboratory synthesis on a pilot scale; provision of services related to forecasting the properties of substances; designing structures suitable for the required applications.

More information about the cluster: The MedChemBio cluster cooperates closely with the Institute of Molecular and Translational Medicine of the Medical Faculty of the Palacký University in Olomouc (www.imtm.cz); this institute was built under the project of "Biomedicine for Regional Development and Human Resources", financed under the Operational Programme of Research and Development for Innovation. The Institute of Molecular and Translational Medicine is becoming a technical infrastructure and a platform for basic molecular research and translational biomedical research with a view to better understanding the molecular nature of tumorous and infectious diseases.

**Registered Office**

Šlechtitelů 813/21, Olomouc, Holice

Legal form

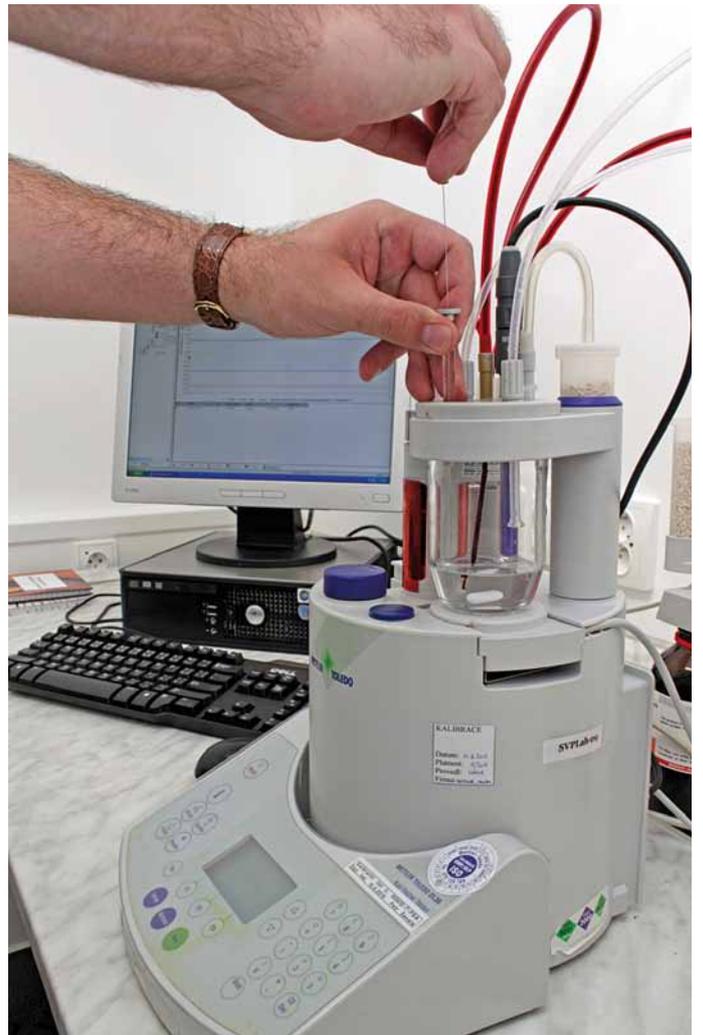
Interest association of legal entities

Date of establishment

February 2009

ContactArnošt Rybář, Project Manager
arnost.rybar@medchembio.czwww.medchembio.cz**Cluster outputs - examples:**

Construction and equipment of the MedChemBio laboratory, providing services related to the quality control of medical products, active ingredients, primary raw materials and intermediate products. The laboratory also offers the possibility to prepare stability studies concerning the above-mentioned materials and is able to develop and validate analytical methods. It can perform both ordinary and special physical and chemical analyses, including, for example, liquid chromatography, gas chromatography, infrared spectroscopy, titration and a whole range of other analytical determinations. The experts working in the MedChemBio laboratory have extensive experience in working in the good manufacturing practice regime in the pharmaceutical industry. The laboratory also has a Ministry of Health authorisation to handle selected precursors of addictive drugs.





Registered Office

1. máje 34/120,
70300 Ostrava-Vítkovice

Legal form

Cooperative

Date of establishment

April 2006

Contact

Ing. František Peterka,
chairman of board of directors
frantisek.peterka@daas.cz

www.envicrack.cz

Mission of cluster: The benefit of the ENVICRACK cluster for its members and for the economic development of the region consists of cooperation on research and development activities of the members of the cluster in the area of waste processing, use of alternative energy sources and innovation in transport. The aim is the development of new technologies and their transfer with the aim of introducing innovation and reinforcing the competitiveness of cluster members.

Fields of focus of cluster: 28100 – Manufacture of machines and equipment for general purposes; 25110 – Manufacture of metal constructions and their components; 29310 – Manufacture of electrical and electronic equipment for motor vehicles; 38320 – Treatment of waste for further use, with the exception of dismantling of wrecks, machines and equipment; 62090 – Other activities in the field of information technology; 72100 – Research and development in the area of natural and technical sciences.

Number of cluster members: 28

Activities of cluster: The cluster's activities focus on three areas:

- ▶ Pyrolysis technology for processing of waste
- ▶ Solar energy, specifically the conversion of solar radiation into thermal and electrical energy and energy accumulation
- ▶ Innovation in rail transport, specifically reduction in consumption of energy through the use of recuperation and accumulation of energy.

In the past a joint project "**Development of innovation and reinforcing of competitiveness of ENVICRACK cluster**" was implemented which included 9 sub-projects from the area of waste, energy and rail transport.

Presently the cluster deals with further development of these research activities and results. In addition, the cluster further cooperates on other research tasks with the TECHNOLOGY CENTRE OSTRAVA (TCO) and with the VŠB Technical University of Ostrava it deals with the organisational operation of the centre ENET (ENERGY UNITS FOR USE OF NON-TRADITIONAL ENERGY SOURCES). The ENVICRACK cluster provides expert advisory services to SME start-ups. Firms which are members of the cluster are constantly launching commercially successful innovations on the market and utilise the rights to intellectual property in the form of submitted patent applications.

In the context of the programme Partnership of the Ministry of Education, the ENVICRACK cluster actively participates in the preparation of expert educational workshops supporting the development of innovative cooperation between the VŠB Technical University Ostrava and SMEs. We also cooperate actively with technical universities in Poland and Germany. These contacts allow the mutual exchange of experts and assist international cooperation in the context of the individual R&D projects. The number of innovative SMEs, members of the ENVICRACK cluster, is constantly on the rise. The ENVICRACK cluster creates conditions for involvement of members in multinational branch groups, for example involvement in the project REWANET (7th Framework Programme). We cooperate on a Czech-Polish cross border cooperation project focusing on technology transfer.

Cluster outputs - examples:

On the basis of the results of research programmes implemented by the cluster, the cluster members implemented the following products.

1. Test laboratory for development, measuring and testing of concentration solar power station intended for conversion of solar radiation into thermal and electrical energy

The test laboratory applies the results of three separate projects and merges them into a single product. This involves the use of a Stirling motor, development of technology for the use of solar energy and solar radiation concentrator. The output is the acquisition of a test laboratory for the purposes of further testing.

2. Testing of rail vehicle

This is a rail vehicle intended for operation in industry. It is powered by only rechargeable batteries and serves for the further testing of the better use and evaluation of electrical energy. The vehicle merges the attained results of two development programmes – development of rail vehicle and development of fuzzy logic control.

3. Laboratory for applied research on pyrolysis technology

The laboratory brings together the results of two separate projects (and many other individual research projects) and merges them into one product. It involves long-term research tasks from the area of recycling of metallic waste and use of pyrolysis in the presence of inhibitors.

4. Acquisition of mobile laboratory for research into accumulation of electrical energy

The mobile laboratory serves for research into the measuring and evaluation of influence of accumulation units of electrical energy in cooperation with various energy systems (electrical network, island network or thermal accumulator) with renewable sources. The laboratory is equipped with equipment for accumulation of electrical energy, instruments and devices for measuring and evaluating electrical flow both inside and outside the laboratory. The laboratory makes it possible to evaluate the time regimes of energy flows (time profiles) in connection with the regime of sources and to measure their physical values which can be used for further processing.





General Engineering Cluster

Manipulation - Automation - Energetics

Mission: contribute to the growth of the competitiveness of engineering companies in the region through its members' active support to innovative and marketing activities under joint projects.

Business focus: 28200 – Manufacture of other general-purpose machinery and equipment; 25200 – Manufacture of central heating radiators and boilers, tanks, reservoirs and containers of metals; 25610 – Treatment and coating of metals; 25620 - Machining

Number of cluster members: 70

Activities: focused primarily on supporting the growth of added value, improvement of productivity and reduction of the costs of the member companies. The cluster's activities can be divided into four major areas. The first area is the provision of infrastructure – there are seven shared service centres, equipped with specialised development and testing facilities, which at present provide development services for the member companies of the cluster, as well as for other engineering companies. The centres use the latest technologies, including, for example, an elevator and hoisting system development unit, or a measuring and testing centre with measuring instrumentation systems and an atom absorption spectrometer etc. The centres also arrange cooperation between specialists from partner universities to work together and carry out the cluster members' specific innovation projects. They are also involved in collective research and development – the cluster cooperates with partner universities and R&D partners to carry out joint industrial research projects. The second area is business and innovation consulting – arranging long-term cooperation between the academic and business spheres. The consulting activities are primarily focused on the pre-production phase (marketing and market research, development and testing, intellectual property management, project financing and human resources development) and on network business activities. The third area is the preparation of the Jihlava Technological Park – a science and technology park with a business incubator.



Registered Office

Chýnovská 535,
39111 Planá nad Lužnicí

Legal form

Cooperative society

Date of establishment

January 2009

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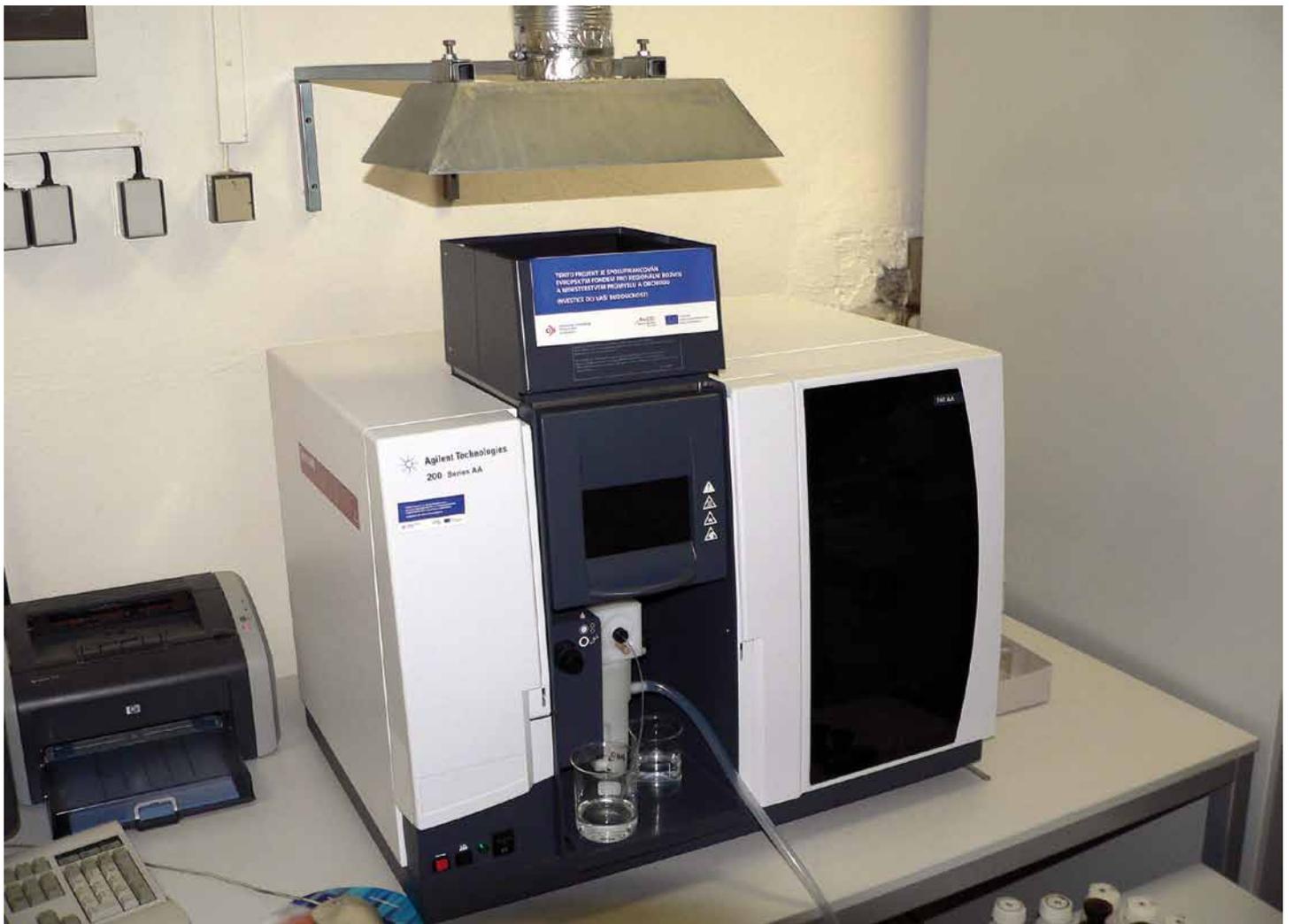
www.maestroj.cz

Cluster outputs – examples:

The major outputs of the project include the equipment of a Shared Services Centre, with a technical infrastructure for implementing joint projects in the areas of automated modular systems, manufacture of tools and moulds, and energy measurement instrumentation. The equipment was selected so as to ensure that intersectoral cooperation and interdisciplinary approach to innovation can be supported. Another important centre is the "Real Manufacturing Process Simulation and Modelling" centre, which has two specialised units:

Flexible manufacturing system unit – serves to verify the optimum level of process automation and to check the possibilities of work diagnostics. Its work is based on the interaction of a functional model of CNC milling machine and a functional model of CNC lathe in combination an operating robot system. This equipment is intended for the investigation of possible interconnections between workflows within a flexible manufacturing system, and for the optimisation thereof.

Process automation unit – serves to model the use of automation in mechatronics and to simulate real manufacturing processes as well as various extreme and emergency situations.



Mission: contribute effectively to the development of innovation, applied research and technology transfer for the purpose of reducing energy costs across the industries involved.

Business focus: 26510 – Manufacture of instruments and appliances for measuring, testing and navigation; 28100 – Manufacture of general-purpose machinery; 28990 – Manufacture of other special-purpose machinery; n.e.c.; 72190 – Other research and development on natural sciences and engineering.

Number of cluster members: 23

Activities: reducing the energy demand of technological processes and buildings, development of renewable and alternative energy sources, creating a platform for communication and cooperation between the small and medium-size enterprises (focusing on these issues) and universities and research institutions. The cluster's major projects are focused on: wind power plant innovation (to be used by property owners as another alternative electricity source); improving the efficiency of propeller systems; reducing the energy demand of industrial production through optimising the manufacturing processes, using effective management tools; or building the cluster's laboratory with a wind tunnel.

More information about the cluster: ENERGOKLASTR is involved in the construction of the Vysočina Technology Transfer Centre (an infrastructure project focused on the transfer of technology in power engineering, on the reduction of energy demand, on material engineering and on the use of biomass. After completion (in 2013), the centre will offer research and development services in biochemistry, toxicology, power engineering and climatology. The cluster is involved in the ClustersCORD international project.

Registered Office

U Mlýna 1075, Slavkov u Brna

Legal form

Civic association

Date of establishment

December 2008

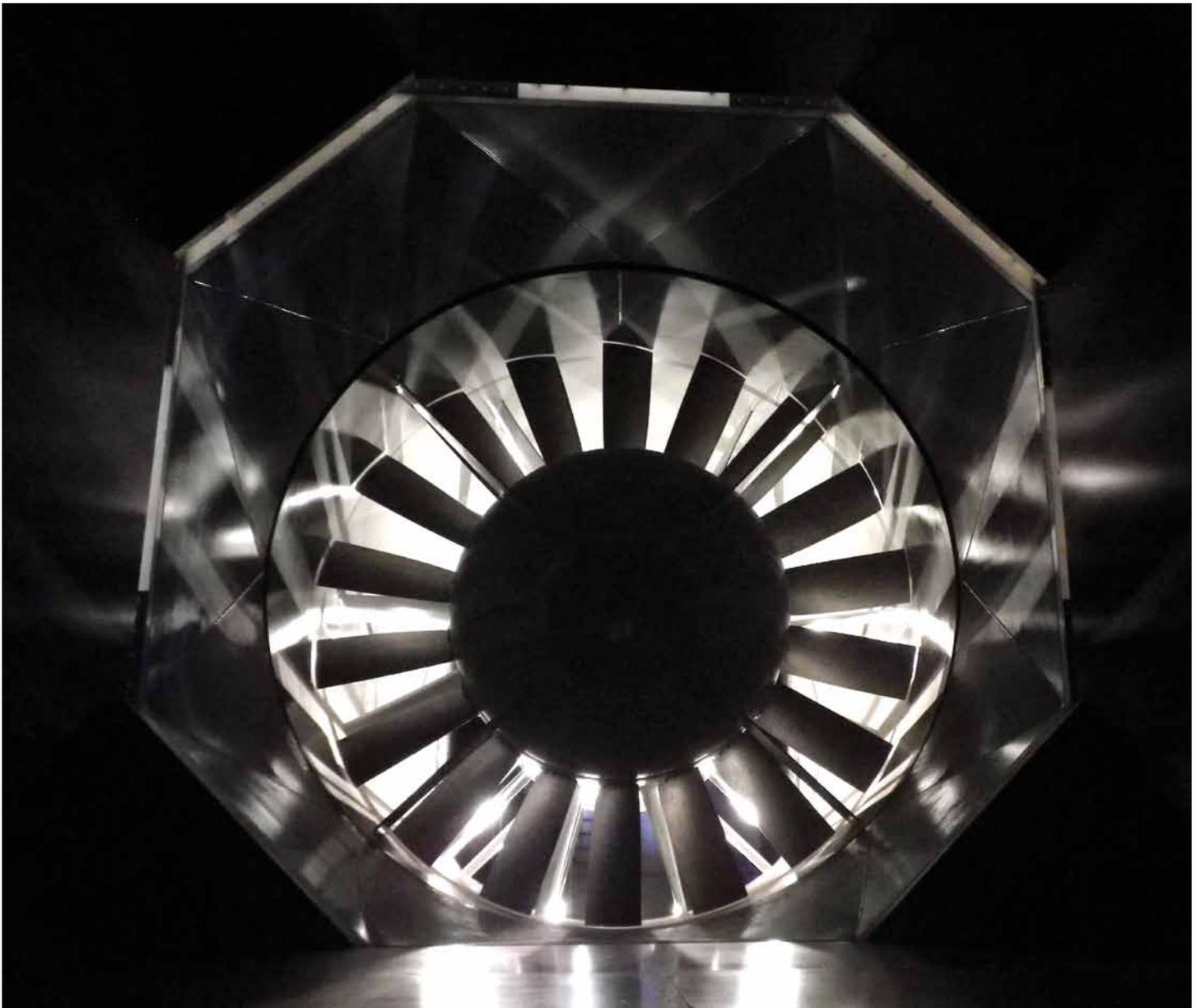
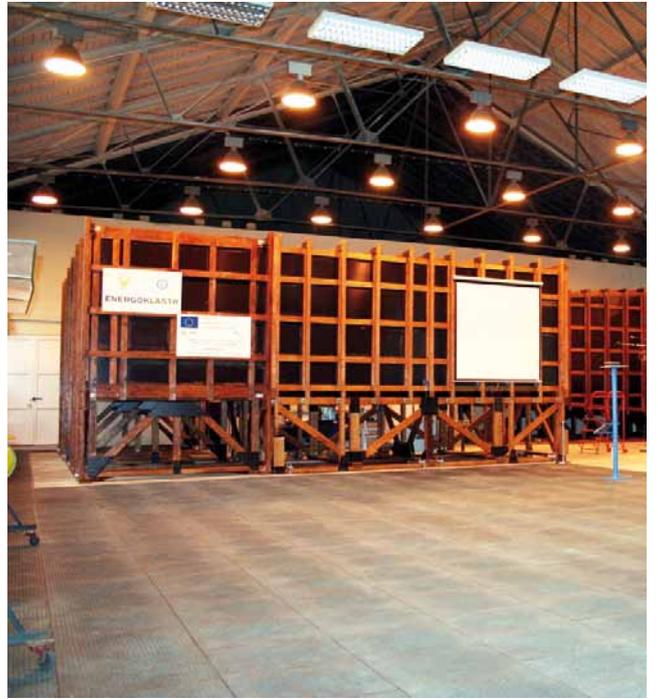
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Cluster outputs - examples

Low-speed circulating wind tunnel for measuring and testing the results of research. The tunnel is primarily intended for the testing of aircraft models and their parts in all phases of airplane design, development and operation. The most important area of use of the tunnel is the development of military aircraft types (and the parts thereof) and pilotless aircraft.



Mission:

Disseminate knowledge in the field of nanotechnologies, bring together those who are interested in research and applications in this field.

Coverage: nation-wide

Business focus:

- 74 Other professional, scientific and technical activities;
- 63 Information service activities
- 620 Information technology service activities
- 7219 Other research and development in natural and engineering sciences
- 702 Management consultancy activities
- 731 Advertising
- 73200 Market research and public opinion polling
- 855 Other education services

Number of cluster members: 5

Activities:

Established in 2006, this knowledge cluster is currently being restructured to replace passive companies by more active and dedicated members, who understand the clustering idea and wish to joint projects. With this in mind, the cluster is organising training seminars and offering cooperation to the companies and institutes interested in innovation in the field of nanotechnologies and the application thereof in existing technological systems. Cooperation may be pursued in health services, in the areas of active surfaces, health products, environmental sanitation, and possibly also in the energy area.



Registered Office

Šlechtitelů 813/21,
77900 Olomouc - Holice

Legal form

Cooperative society

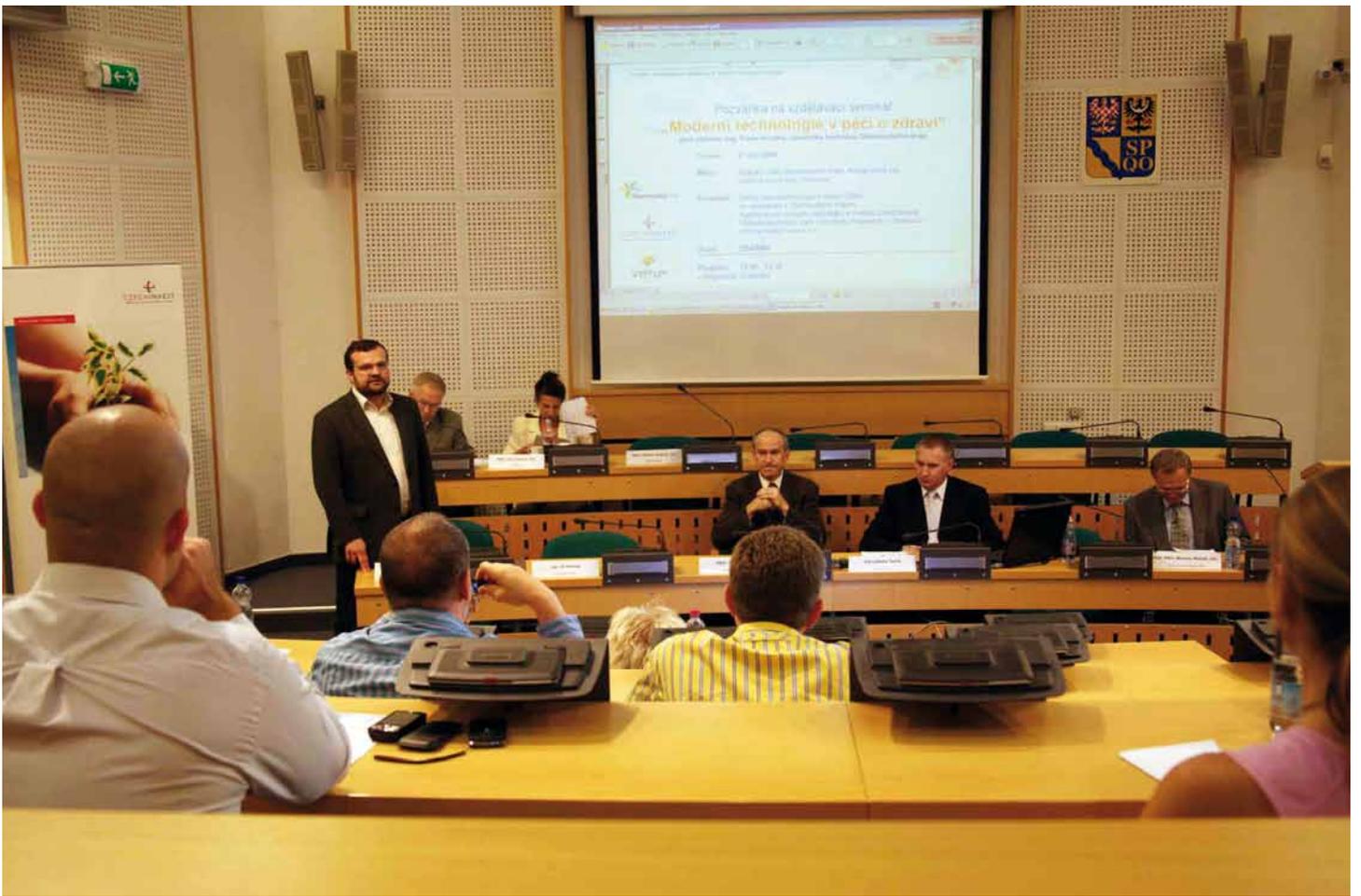
Date of establishment

September 2006

Contact

Jiří Oborný,
Authorised Signatory (Procurist)
Prof. Miroslav Mašláň,
Cluster Chairman
manager@nanoklastr.cz

www.nanoklastr.cz



Mission: create and develop a strong and competitive regional group of furniture manufacturers in the regions where the cluster operates. Funds generated from increasing sales (particularly exports) are invested in innovation and, thereby, the cluster contributes to the development of the region and its economy; it has a favourable influence on employment and on people's skills and contributes to reducing the local environmental exposures. The cluster seeks to encourage exports and support its members' business efforts.

Business focus: 31000 – Manufacture of Furniture

Number of cluster members: 36

Activities: Equipping and operating the cluster's servicing centres, enabling members' access to modern technologies to be used for research and development of new processes and products and for testing the quality of existing products; supporting innovation in furniture designing; innovating the distribution and logistics routes and innovating the processes; developing new models and technologies to be used in manufacturing; organising professional workshops, seminars and meetings, and participation at trade fairs; international competitiveness (analyses, studies) – preparing and using specialised marketing studies concerning the key target markets in Europe, North America and Southeast Asia; research for innovation; capacity sharing among the cluster's member companies; innovation of the member companies' organisation and management processes; cooperation and the promotion of clusters.

More information about the cluster: Cluster of Czech Furniture Manufacturers participates in the international project under the Leonardo da Vinci Programme, which is aimed at preparing an educational programme with a vocabulary of the most important terms used in furniture making. To support understanding and interactive learning, an interactive virtual house with model interior furnishings will be created to be used for explaining the technical and professional issues. The project, which was launched in October 2010 and will continue until December 2012, also involves BDS Sofia (Bulgaria), G.M.I.T. Letterfrack, (Ireland), IHD Dresden (Germany), TUZVO Zvolen (Slovakia) and the Textile Testing Institute (Czech Republic).

Cluster outputs - examples:

The cluster's servicing centres are equipped with state-of-the-art instrumentation such as the testing facility for checking the quality of the surfaces of coatings and paints, a laboratory industrial hydraulic press, a pendulum impact testing instrument (Charpy hammer), a Surfest SJ-201 instrument to measure surface roughness and other measuring and laboratory equipment. This equipment makes it possible to carry out a number of research projects for the cluster and its members (Impact of temperature and pressure changes during the press cycle on product properties and structure in the production of slab materials; Measuring the parameters of different types of furniture painting materials; or Practical checking of the causes of the deflection of some furniture parts after application of paint; etc.), thus contributing to their higher competitiveness on both local and international markets.



Registered Office

Kozí 26/4, 60200 Brno

Legal form

Cooperative society

Date of establishment

July 2006

Contact

Radek Brychta, Chairman
info@furniturecluster.cz

www.furniturecluster.cz





Mission: develop safety technology research in the region through a strong sectoral group comprising industrial companies, universities, scientific and research institutions and other entities, both public and private, to ensure sustainable competitiveness. Bring the requirements of the application sphere to the attention of scientific and research institutions and ensure that favourable conditions are created for enhancing the local human and technical resources and their full utilisation and, thereby, for strengthening the image of the Moravian-Silesian Region as a region with a promising future.

Business focus: 28000 – Manufacture of machines and equipment, n.e.c.; 71200 – Technical testing and analyses; 72000 – Research and Development

Number of cluster members: 32

Activities:

The cluster has three divisions. The projects under way in each of them are indicated below:

1st Division: Science, Research and Innovation

Expert Unit for evaluation of psychic (and physical) exposure in the work process – measuring the current psychophysiological state of the organism on the basis of heart rate variability, using the spectral analysis method. This method is fast and non-invasive.

Mobile measuring unit – measuring ambient pollution and dust concentration to identify pollution sources in relation to industrial safety and hygiene in the Moravian-Silesian Region. Research and development activities in the field of occupational environment and environmental risks. Evaluation of air pollution in industrial operations and in the areas around them.

2nd Division: Education

Expert Centre – its objective is to provide employers as well as competent risk prevention professionals with adequate information on labour safety, fire safety, environmental protection (with primary focus on legal and other regulations, technical safety, issues related to the risk of explosions, accidents etc.). The main purpose is to enhance communication among individual professionals involved in safety training and thereby to contribute to the wealth of safety knowledge among the professional public.

Risks inherent in the industrial processes where explosive atmosphere may occur – developing a training module focusing on the risks where attention must be paid to the threat of the occurrence of an explosive atmosphere and to the prevention of triggering an explosion.

3rd Division: Development

Information Centre, shared services centre, cluster promotion – activities focusing on information sharing, on marketing, and on developing business opportunities for cluster members.



Registered Office

Lumírova 630/13,
Ostrava-Jih - Výškovice

Legal form

Civic association

Date of establishment

April 2010

Contact

Robert Chlebiš, Cluster Manager
robert.chlebis@btklastr.cz

www.btklastr.cz

Technical and information support of CI / ECI protection: the ICT system will provide technical support of critical infrastructure in the sense of application software or methodology of emergency preparedness plans.

Multipurpose monitoring and development center: the aim is to create a central monitoring and alarm center which will involve training monitoring and alarm center, training center for security specialists and monitoring center software.

Accredited testing laboratory for testing and research of security locks: the laboratory will be used as a research center for applied research and a center for research activities of students and postgraduate students in technical fields.



Mission: develop a well-functioning alliance of breweries, supporting and promoting their interests on both the local market and abroad. Provide a scientific and technical background for its members' projects. Ensure that financial support is available for their activities towards achieving their vision. Develop innovative technologies and production processes to ensure the production of organoleptically stable traditional Czech drinks (beer and soft drinks) at a high level of quality, specific in the European context, and thereby to contribute significantly to the health and well-being of the Czech and European population.

Business focus: 11050 – Manufacture of beer; 11070 – Manufacture of soft drinks; production of mineral waters and other bottled waters.

Number of cluster members: 15

Cluster members: Kokořínský pivovar s.r.o.; BUDĚJOVICKÝ MĚŠŤANSKÝ PIVOVAR a.s.; Regionální potravinářský klastř - Chutná hezky. Jihočesky [Regional Food Industry Cluster]; Podkovář s.r.o.; AND - S s.r.o.; AGRA GROUP a.s.; TAMBÚ s.r.o.; Aequilibrium s.r.o.; DUP - družstvo Pelhřimov; Pivovar Kácov s.r.o.; DUDÁK - Měšťanský pivovar Strakonice, a.s.; Výzkumný ústav pivovarský a sladařský, a.s. [Brewing and Malting Research Institute]; Měšťanský pivovar Havlíčkův Brod a.s.; Czech Brewmasters s.r.o.; Pivovar Nymburk, spol. s r.o.

Activities: joint purchasing of raw materials to enhance the variety of the offer of Czech beers on the domestic market; supporting business activities to increase exports; evaluating the technological phases; sensory profiles of cluster members' products; checking the probiotic factors of beer (Evidence Based Medicine); attempting to set up a project of "typically Czech beer"; joint promotion activities; improving the professional and technical competences of employees; input inspection (regular, random, pre-purchase etc.) of brewing raw materials; technological auditing; cooperation in the field of certifications – HACCP, ISO, BRC, IFS etc.



Registered Office

Lidická tř. 458/51,
České Budějovice 7

Legal form

Interest association of legal entities

Date of establishment

October 2008

Contact

Jitka Hanzlovská, Director
info@pivoklastr.cz

www.pivovarskyklast.cz







Registered Office

Traubova 1546/6, 602 00 Brno

Legal form

Civic association

Date of establishment

June 2008

Contact

Břetislav Skácel, Cluster Manager
crea@creacz.com

www.creacz.com

Mission: improve the competitiveness of the cluster as a whole as well as its members and their active presence in foreign markets; contribute to the development of the hydropower industry in the Czech and international context and develop cooperation between companies and universities, scientific and research institutions and foreign partners.

Business focus: 38320 – Recovery of sorted materials, except the dismantling of wrecks, machinery and equipment; 28000 – Manufacture of machines and equipment, n.e.c.; 71200 – Technical testing and analyses; 72000 – Research and development.

Number of cluster members: 15

Activities: The activities of the cluster are primarily focused on projects in the area of research, development and innovation, human resources and promotion. Research projects cover the following areas: developing new methods to improve the safety of dams; developing special technologies and methodologies for waste management; developing special technologies for energy utilisation.

More information about the cluster: The CREA Hydro&Energy cluster has its branch in Iraq, where it offers its consulting services to the Ministry of Agriculture and Water of the Kurdish Regional Government in the construction of new hydropower and water resource development projects in Northern Iraq. The CREA Hydro&Energy cluster was an official partner of the HYDRO 2011 global conference on dams and hydro power stations, held in Prague in October 2011. The cluster participates in the CORNET Initiative's international project focused on water recycling, i.e. the use of ozone in the tertiary treatment of waste waters with the possibility of the reuse of water in industrial processes.

Cluster outputs - examples:

Under the project of developing special technologies for energy utilisation, the cluster developed a special design of turbine hydraulic profiles for two turbine types – low head water applications for small hydro power stations (see figure) and for micro-installations for areas not covered by power grids. Additional outcomes of the project include model instruments to measure the turbines' parameters. The project was carried out in 2009 – 2012 by eight members of the cluster.

Development of new methods for improving the safety of dams is another successful outcome of the cluster's activities. These methods, representing a combined multi-sectoral approach to improving the safety of hydraulic structures, can be used with advantage both locally and abroad.



Mission: improve the competitiveness of the cluster members mainly on international markets, support innovation, build an innovation centre, increase the number of cluster members by small and middle-size enterprises and to expand the range of supplies and services and enhance international cooperation in selected territories.

Business focus: 28290 - Manufacture of other general-purpose machinery and equipment n.e.c.

Number of cluster members: 16

Activities: ATOMEX GROUP focuses on research, development, innovation and cooperation with tertiary institutions. It uses all forms of support to export and organises technological re-equipment and the upgrading of computer systems and inspection methods. It develops a well-functioning supply system for turnkey capex projects, organises employee education and cooperates with higher-level contractors (EPC) and banks.

Members of the cluster supply equipment for the power industry, chemical and petrochemical industry, environmental protection, metallurgy and transport. The cluster is able to provide comprehensive solutions, including design, technology and production, for machinery and electro supplies.

The cluster is involved in two projects. The ATOMEX4ENERGY project addresses, among other things, the construction of a 3D measuring unit, which is to be put in full operation in the Žďár nad Sázavou plant already in 2012. The other project, ATOMEX4EXPORT, is focused on supporting export, expanding the cluster and completing certain sub-projects under the ATOMEX4ENERGY project. The cluster's strategy is targeted on building an effective and flexible system of supplies for capex projects tailored to customers' requirements, with the objective to become a higher-level contractor (EPC) in the future.



Registered Office

Černošská 1930, Benešov

Legal form

Interest association of legal entities

Date of establishment

March 2009

Contact

František Kulovaný,
Association Chairperson
atomex@atomex.cz

www.atomex.cz







Registered Office

Studentská 6202/17,
Ostrava -Poruba

Legal form

Civic association

Date of establishment

October 2008

Contact

Jan Poledník, Cluster Manager
j.polednik@msek.cz

www.msek.cz

Mission: bring together all relevant resources, including legal entities and individuals, funds and intellectual potentials, to identify and propose solutions to the technological, material, organisational, financial and legislative issues currently facing the power industry and the related electrical engineering industry.

Business focus: 27000 – Manufacture of electrical equipment; 28000 – Manufacture of machinery and equipment n.e.c.

Number of cluster members: 21

Activities: Operation of the Power Cluster’s diagnostic centre, which investigates renewable and secondary energy resources, energy demands of equipment, and the diagnostics of combustion and gasification processes. The centre includes a mobile diagnostic laboratory, furnished with unique equipment for research and development activities. The cluster also participates in preparing educational seminars and training workshops and contributes to research and development efforts aimed at reducing energy demand and utilising renewable energy sources. The cluster has built an energy research centre.

More information about the cluster: The cluster is one of the five participants in the project entitled Energy Self-sufficient Region, which is aimed, in its first phase, at mapping the sources of energy and the current and future demand for energy, and at proposing a new energy policy, reflecting the future development of the Moravian-Silesian Region.

In cooperation with its members, the Moravian-Silesian Power Cluster initiated the establishment of an experimental unit for research into the issue of improving the effectiveness of the energy-related equipment in the cluster’s operation at Zubří. This experimental unit will study the issues of increasing the efficiency of the operation of energy-generating installations. In the first phase, we are focusing on building a research unit and installing a trigeneration system. The project is based on the installation of the BOOMEL NATGAS combined heat and power (CHP) facility with a capacity of 180 kWe, powered by natural gas, the generated electricity being consumed locally on the premises by the customer SBU PLASTICS, owned by BRANO a.s. Heat (thermal energy) is another product. It will be stored in a heat storage tank so as to ensure that the operation is as efficient as possible: from the viewpoint of supporting the CHP, it is economically beneficial to operate the facility (and generate electricity) during the high-tariff time of the day. The accumulated heat is consumed during the entire day in an absorption cooler, where a chemical process transforms heat into cold, and the generated cold will be used by the customer for the cooling of the plastics press machine. Trigeneration means that three types of media (electricity, heat and cold) are to be generated. In the second phase, a hydrogen generator will be installed as an additional facility for enriching fuel mixtures with electrolytically generated hydrogen. The expected outcomes include: an up to 5% increase in the efficiency of combustion engine; an at least 10% reduction of the consumption of existing fuels in combustion engines; an at least 35% reduction of exhaust gas particulate matter emissions from



combustion engines; and a reduction of the quantity of greenhouse gases generated during the combustion process, particularly CO, CO₂ and NO_x.

The objective of the project is to test if it is possible to use the trigeneration technology in industrial operations for technological consumption, which for the most part remains unchanged during the day, month and year. The consumption of cold with such parameters offers promising opportunities to use combined heat and power systems whose efficiency depends, to a considerable degree, on the uniformity of consumption of electricity and, in particular, heat during the year. The team of scientists will also examine the above-mentioned issues enriching fuel mixtures with electrolytically generated hydrogen, using a facility simulating real operating conditions.

Selected project: Establishing the Power Cluster's diagnostic laboratory

The laboratory will be established jointly with the Energy Research Centre of the Mining and Technical University (VŠB-TU) in Ostrava. Its objective is to support the development of science and research in the field of energy. It will primarily focus on research into renewable and secondary energy resources, the energy demand of equipment and the diagnostics of combustion and gasification processes. The diagnostic laboratory is furnished with unique equipment for the research and development activities of the Energy Research Centre of the VŠB-TU. A mobile laboratory has been purchased for CZK 6,750,000, equipped with measuring and sampling instruments for analysing the exhaust gases from combustion processes, and with instruments for analysing and measuring the main components of exhaust gases from combustion facilities and other emission components. The mobile laboratory also has new analysers (and accessory equipment for sample collection and treatment), analysing modules, accessories, and the operator's work station. The results will be made public with the new technologies and innovative processes to be presented in technical journals, at conferences and seminars and through the cluster's information portal.



Mission: Initiate a platform for long-term cooperation among Czech businesses and research institutions in the area of nanotechnology and biomedicine; highlight and support these sectors, raise public awareness thereof abroad, and ensure that they are perceived as genuine Czech know-how, especially in applications for regenerative medicine and tissue engineering. Engage the students of the participating universities to create ideal conditions for students' transition to practice.

Business focus: 21000 – Manufacture of basic pharmaceutical products and pharmaceutical preparations; 20000 – Manufacture of chemicals and chemical products; 20500 – Manufacture of other chemical products; 20600 - Manufacture of man-made fibres

Number of cluster members: 21

Activities: The SME-driven cluster focuses on development and preparation of technological procedures, products and services in the field of core/shell nanofibers for application in biomedicine and commercialization of these products in the medium term.

The core activities of the cluster are divided into four projects:

Project 1 Developing a reproducible method for preparing core/shell nanofibers.

Project 2 Developing therapies and medical solutions based on functionalized nanofibers for external applications, skin covers and surgical applications

Project 3 Developing medical solutions based on functionalized nanofibers for use in biomodels.

Project 4 Preparing native proliferation factors, sterilizing and packing samples and organizing transport.

Other activities involve internationalization, networking and building of strategic partnerships among clusters and its participants.

Cluster outputs - examples:

Description of the output and use:

Electrospinning device for the preparation of core/shell nanofibers

- ▶ enables reproducible preparation of coaxial nanofibers;
- ▶ enables preparation of coaxial nanofibers in industrially usable volumes;
- ▶ a model suitable for clean rooms has been developed recently.

Period of implementation: August 2011 – February 2012 (from launching the tender to the debugging of the equipment)

Number of cooperating cluster members: 4



Registered Office

Nová 306, Pardubice 530 09

Legal form

Interest association of legal entities

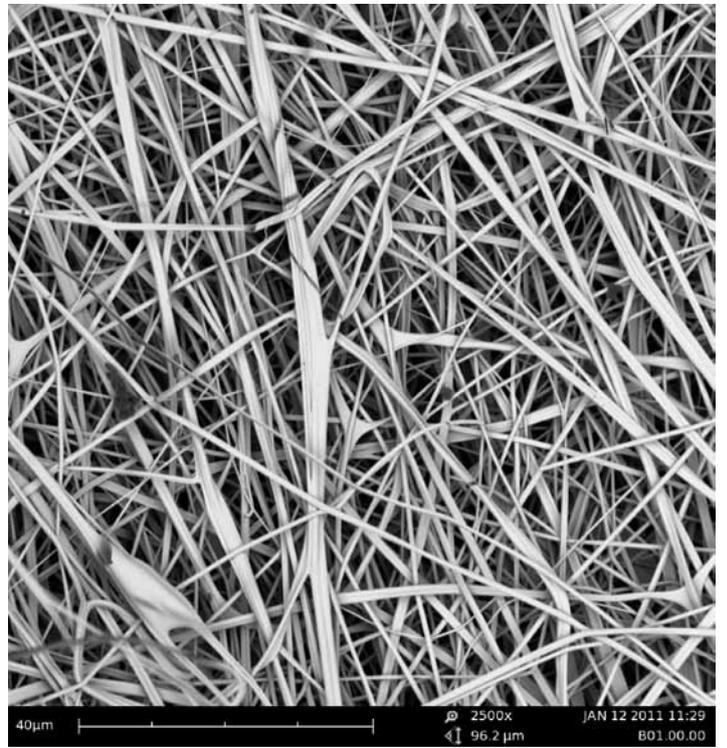
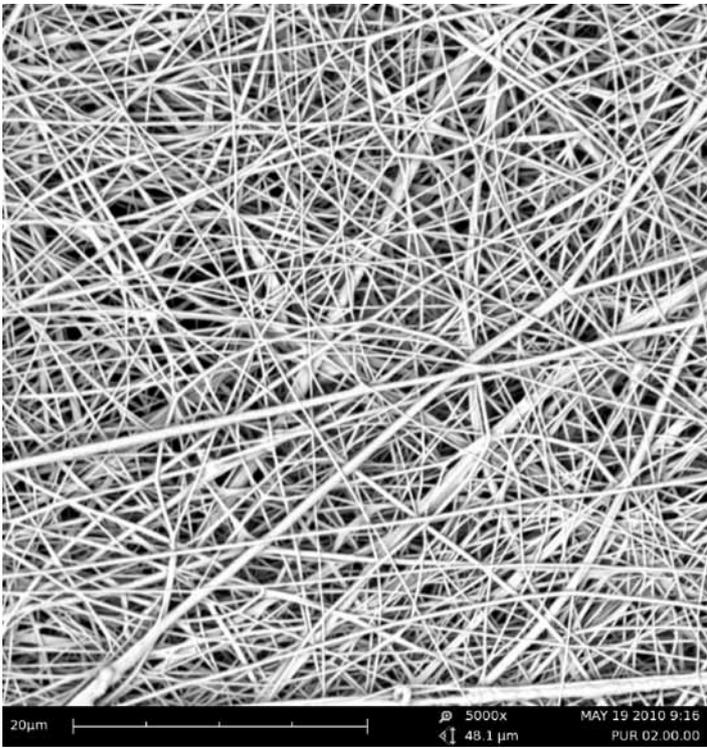
Date of establishment

May 2010

Contact

Liliana Berezkinová,
Sales and Marketing Manager
berezkinova@nanoprogres.cz

www.nanoprogres.cz



Mission: Support the competitiveness of the members of the cluster in the provision of software as a service ("SaaS") by encouraging cooperation among cluster members on the CZECH IT CLUSTER development platform and by asserting the Cloud Computing concept among both the professional and general public.

Business focus: 62000 – Information technology activities; 62010 – Computer programming activities; 62020 – Information technology consulting activities; 63100 – Data processing, hosting and related activities, web portals

Number of cluster members: 41

Activities: The cluster's joint projects are focused on standardising cloud services and building a shared cluster platform, creating development tools and procedures to set up SaaS applications (so-called application libraries), coordinating the cluster's educational activities and implementing innovation and knowledge within the cluster, recruiting talents and experts, building a uniform communication strategy and an information system for the cluster, and promoting the SaaS and Cloud Computing concepts.

Cluster outputs - examples:

Development portal

A communication platform intended primarily for the members of development teams to ensure fast interaction among researchers and members involved in development projects. The user of the portal is automatically informed about all activities related to the project (putting the new versions of application library components into the testing and production mode, identification and removal of faults during testing; comments and proposals). The portal also offers tools for the reporting of the faults identified by the developer during testing, the documentation of the versions of application library components, or a discussion forum.

Period of implementation: June 2011 – December 2011

Number of cooperating cluster members: 35

Application libraries

Source application libraries for improving the productivity of developing new applications. Their use strengthens the compatibility of the application with the cluster's platform, enhances the possibilities of integration with other applications running on the platform, and simplifies the updating process. Cluster members use the components of application libraries as the basic building blocks in creating their own new commercial applications. The use of application libraries in developing specific software programmes will enable cluster members to significantly increase the productivity of developing new applications and reduce the time before the product is launched to the market.

The project comprises development work in three areas: application libraries to support corporate processes; application libraries to support productivity; and application libraries to support terminal equipment.

Period of implementation: August 2011 – May 2013

Number of cooperating cluster members: 33



Registered Office

Benešova 1256/13, Jihlava

Legal form

Cooperative society

Date of establishment

May 2010

Contact

Tereza Chlumová, Cluster Manager
chlumova@czech-itc.cz

www.czech-itc.cz



Mission: The cluster represents organised efforts focused on innovation, faster growth and competitiveness of the members, including the strengthening of the sectors of pellet-fired boiler manufacture and use, production of wood pellets and production of other biomass fuels for heating.

Business focus: 16000 – Wood processing, manufacture of wood, cork, wicker and straw products, except furniture; 32990 – Other manufacturing industry n.e.c.; 38320 – Recovery of sorted materials, except the dismantling of wrecks, machinery and equipment; 63100 – Data processing, hosting and related activities, web portals.

Number of cluster members: 31

Activities: The cluster's core research and development projects include the recycling and handling of the ash from biofuel pellets and briquettes (the ash can be shaped into pellets to be used as fertiliser on farms, in forestry and gardening). Promotion of the cluster itself and its members is another major area of the cluster's activities, as well as awareness efforts to promote environmentally friendly methods of heating, using shaped biofuels – pellets, briquettes, wood chips, and other types of biomass fuels. Any increase in the proportion of shaped biofuels in the total fuel consumption in the Czech Republic will reduce harmful emissions in the air, help to meet the objectives set by the European Union for the use of renewable energy sources for power generation, and contribute to the development of cooperation among Czech companies – manufacturers of biomass pellets and other biofuels, manufacturers of biomass-fired boilers, distribution companies, scientific institutions, heating installation firms and other related professions.



Registered Office

Ruská 294, Dobřichovice

Legal form

Interest association of legal entities

Date of establishment

May 2010

Contact

Vladimír Stupavský, Board Chairman
predseda@ceska-peleta.cz

www.ceska-peleta.cz





Mission: the members actively cooperate on the implementation of the common objectives in the areas of innovation, education, research and promotion. The key objective is to innovate and expand the cluster by adding further activities aimed at improving business conditions in the wood processing industry and at strengthening the links between researchers, universities and businesses.

Business focus: 16000 - Wood processing, manufacture of wood, cork, wicker and straw products, except furniture; 16100 – Sawmilling and treatment of wood; 16230 – Manufacture of other builders' carpentry and joinery

Number of cluster members: 30

Activities: Operation of a newly equipped woodworking research centre and dissemination of research results in the form of expert studies or the transfer of technologies; creating a development and expertise centre for the cluster to organise seminars, lectures and workshops (in cooperation with high-learning institutions). The centre secures the transfer of technologies and the knowledge gained from research studies. Promotion activities and presentation of the results of the cluster's activities.

More information about the cluster: Participation in the "FOREST" Project financed under the Leonardo da Vinci Programme. Its implementation commenced in 2010 and will continue until July 2012. The objective of the project is to support European cooperation and identify effective procedures of professional education and training in forestry and woodworking. Nine partners from six European countries are involved in the project. The cluster has also prepared a project entitled "Building a Professional Training Centre of the Moravian-Silesian Woodworking Cluster", which is to be implemented between 1 January 2011 and 31 December 2012 with a budget of CZK 8,339,000. The objective of the project is to create a training centre for human resources development in the member companies of the cluster. The Centre is located on the premises of the Civil Engineering Faculty of the Mining and Technical University in Ostrava. The project will provide very good background conditions for organising employee training and comprehensive human resources development in the woodworking industry. At the same time, the centre will serve as a perfect visual teaching aid – a unique energy-passive wooden building. Workshops, seminars and conferences will be held there to present low-energy passive technologies and environmentally friendly materials.



Registered Office

Studentská 6202/17,
Ostrava - Poruba

Legal form

Civic association

Date of establishment

August 2005

Contact

Jan Poledník, Cluster Manager
j.polednik@msdk.cz

www.msdk.cz





Mission: Support education and manufacturing processes in the stone-processing industry to strengthen competitiveness and innovation. Carry out high-value-added projects.

Business focus: 23700 – Cutting, shaping and finishing of stone

Number of cluster members: 19

Activities: Operation of an accredited laboratory for investigation of rocks, earths and construction materials. The issues addressed by the laboratory include the use of new types of materials, use of leading-edge technologies, issues of waste processing, stone impregnation, and use of the sandstone of the overburden strata in the North Bohemian brown coal basins. The cluster is also contributing to human resource development (by organising cooperation between universities, secondary schools and apprentice schools), to publishing new textbooks (interactive, internet-based), and to the organisation of training courses, seminars and workshops.

More information about the cluster: new product launched on the market: North Bohemian sandstone; the cluster supports the development of the processing of the Bělohrad sandstone (specific sandstone type, unique in Europe.)

Cluster outputs – example:

Once the Innovation Centre is put into operation and its equipment is completed, the accredited laboratory will be available for commercial use. North-Bohemian sandstone is the common product of the cluster. It has a specific colour, structure and hardness. The majority of the cluster’s members are involved in the production of dressed sandstone or in promoting this product.



Registered Office

Horní Nová Ves 108,
Lázně Bělohrad

Legal form

Cooperative society

Date of establishment

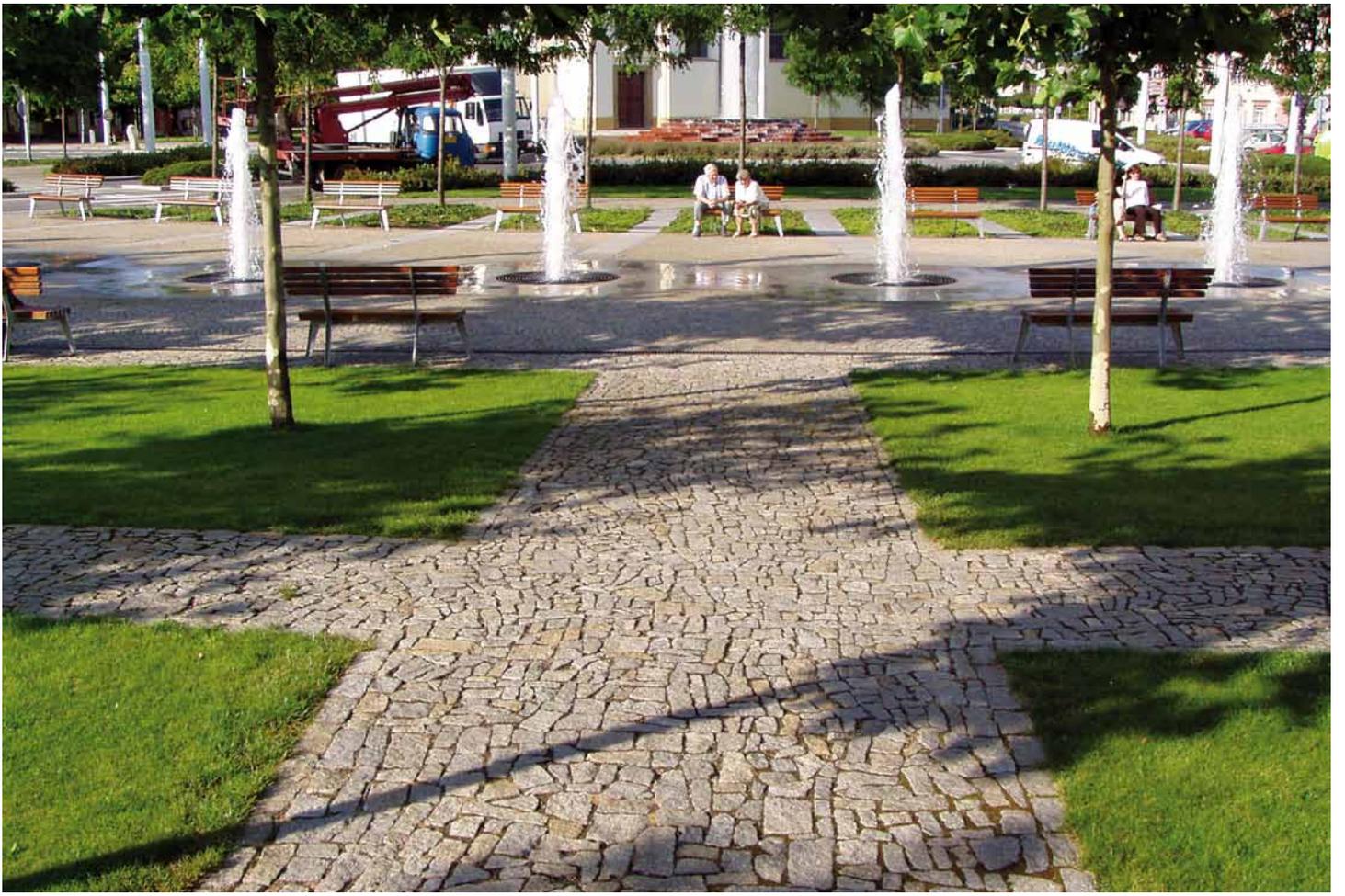
March 2007

Contact

František Žoček, Chairman
frantisek.zoczek@czechstonecluster.eu

www.czechstonecluster.eu







CzechBio

Association of Biotechnological Companies of the Czech Republic

Mission: The CzechBio association serves as national platform for biotech industry. The Main aim is to accelerate, strengthen and further support commercial development of the biotech sector in the Czech Republic. CzechBio works to encourage R&D cooperation between the industry and academia, lobby towards the government on behalf of industry interests and works in order to create favourable conditions for further development of the biotech sector in the country.

Business focus:

- 21200 – Manufacture of pharmaceutical preparations;
- 71200 – Technical testing and analyses;
- 72110 – Research and development on biotechnology;
- 72190 – Other research and technical development on natural sciences and engineering.

Number of cluster members: 36

Activities: Develops new methods of recombinant protein antigens purification for innovation of diagnostic kits and subunit vaccines for human and veterinary use, in its own R&D program.

CzechBio organizes participation at number of high profile international events for its members (such as BIO International Convention in USA, Bio convention in China, ILSI Biomed in Israel, Medica in Germany etc.)

Provides educational services for its members' employees on various expert topics
Arranges contacts with partner associations in Germany, Switzerland, Austria, Belgium and Hungary.

Represents substantial part of Czech biotech and biomedicine industry in contact with interested parties from Czech Republic and abroad.

Encourages R&D cooperation between the private and academic sector.

Lobbying on behalf of biotech industry interests and works in order to create favourable conditions for further development of the biotech sector in the country.

More information about the cluster: CzechBio association was established in December 2008 with the aim to become a national biotech and biomedicine platform in the Czech Republic and to strengthen cooperation between the academic and the private sector. From its original 21 founding members the association has grown steadily – it now includes 31 private companies, 4 Research Institutes and 1 University. In time, CzechBio has become a respected organization representing the industry interests towards both the national government and foreign organizations.



Registered Office

Nad Safinou 366, Vestec 25242

Legal form

Interest association of legal entities

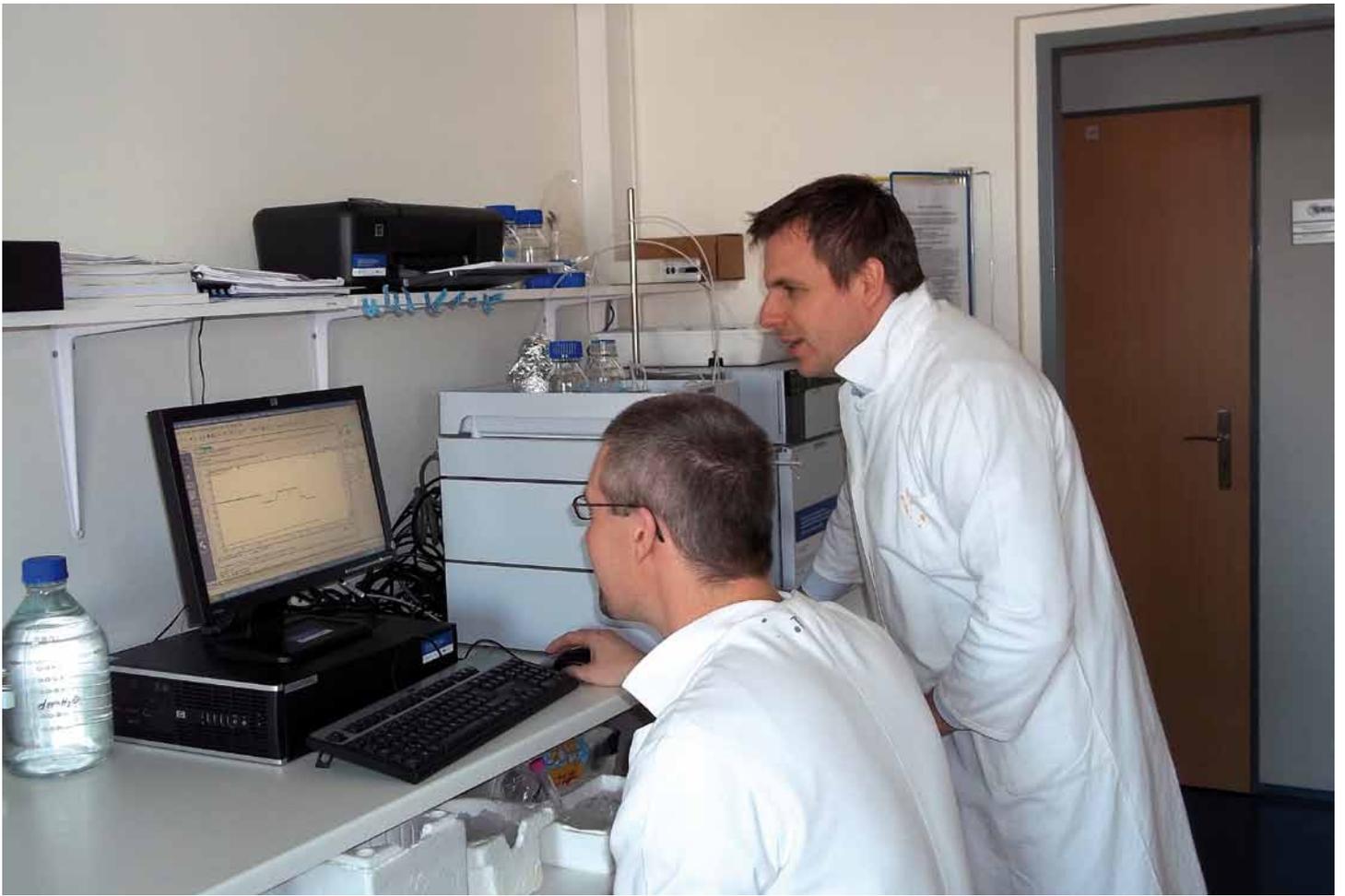
Date of establishment

December 2008

Contact

Ilona Dita
info@czechbio.org

www.czechbio.org





Registered Office

Vavrečkova 5262, Zlín 76001

Legal form

Interest association of legal entities

Date of establishment

March 2006

Contact

Jaroslav Toufar, Cluster Director
Radmila Horáková, Project Manager
toufar@plastr.cz
horakova@plastr.cz

www.plastr.cz

Mission: Create conditions for:

- ▶ developing the plastics industry in the region;
- ▶ utilising research and development results by the association members;
- ▶ maintaining and improving the qualifications of cluster members' employees;
- ▶ supporting its members' innovation activities, encouraging their economic growth and strengthening their competitiveness.

Business focus: 22200 - Manufacture of plastic products; 22210 – Manufacture of plastic plates, sheets, tubes and profiles; 22220 - Manufacture of plastic packaging goods; 22230 - Manufacture of builders' ware of plastics

Number of cluster members: 35

Activities: The cluster's activities can be divided into four basic areas:

1. *Development and innovation, with the following projects:*

- ▶ Testing new raw materials and technologies: nano, - eco, - bio;
- ▶ Introducing new technologies in the cluster's member companies (in particular, handling the new 3D technology of developing plastic products and the machines for their production, and expanding the equipment for thermal analysis;

2. *People, with the following projects:*

- ▶ Improving the professionalism of cluster member companies' engineers;
- ▶ Organising seminars and workshops to deliver the outcomes of plastics processing research development to plastics processing machine operators;
- ▶ Organising internships and on-the-job training for students to support the awareness of innovations in plastics processing within the cluster;
- ▶ Making intellectual property protection available to cluster members.

3. *Shopping centre*

4. *International networking.*

More information about the cluster:

The cluster actively participates in a number of international projects, including, for example:

The Autoplast project, focused on creating conditions for improving the quality of human resources in the companies making plastic products for the automotive industry; this project has been carried out jointly with partners in the Czech Republic and Slovakia.

A project entitled ClusterPlast, focused on active networking of European clusters of plastics manufacturers, and a project entitled CERADA, focused on the networking of R&D capacities in selected regions of the Czech Republic, Poland and Slovakia, all under the 7th EU Framework Programme. These projects supported a wider use of PIM technologies – injection moulding, using ceramic and metal powders – and the organisation of technological cooperation exchanges with plastic part manufacturers and research and technological development institutions; and they also helped to expand joint research in the field of plastics finishing.

Cluster outputs - examples:

Surface treatment of plastic products by innovative methods under application of low-temperature plasma technology and under the atmospheric pressure.

Because of many changes in technical parameters and requirements on plastic products as well as in accordance with development and restrictions in legislation, new specific solution is necessary. New modern products have to comply with all these requirements from several points of view, mainly surface properties of product. Such as resistance against physical, weather influences, specific behavior of product surface in contact with other products or modification of utility properties considering product durability.

The main goals of the project "Surface treatment of plastic products by innovative methods under application of low-temperature plasma technology and under the atmospheric pressure are:

- ▶ Significant increase efficiency of current surface treatment against physical influences or other defined effects.
- ▶ Development and gain such recipes and technological conditions those enable production of "barriers plastic film" as in-line technological process, in form of deposition of ultra- thin layers onto the surface of manufactured film. Consequently, it will increase adhesive properties of products used in packaging industry.
- ▶ Improvement of the maintenance of final products as in-line technological process. Particularly antigraffiti treatment, washability, protection against getting dirty, etc.



The common element of above mentioned applications is modification of the surface properties by deposition of ultra- thin functional layers onto the surface of innovative products with the utilization of low-temperature plasma technology.

Despite the awareness of this technology and plasma treatment (or corona treatment) the usage of plasma is very often limited only as application shortly beforehand final surface treatment.

The main goal of the project therefore will be the increase of efficiency of current additive processes by application of low-temperature plasma. Alternatively, additive processes elimination and replacement by in-line processes of surface treatment in one step, covering application of ultra thin layers through the low-temperature plasma.

One of possible, supposed solution of project counts with utilization of such a material and technological base, that will enable to provide these processes in existing technological conditions (production lines) and in ambiente atmospheric (means production) conditions.

Mission: Provide services to cluster members in order to improve management quality, enhance innovation potential, save costs and develop competitiveness of each of the companies in the areas indicated below.

Business focus: 62000 – Information technology activities

Number of cluster members: 19

Activities: carrying out joint research and development projects in the area of information and communication technologies and systems (ICT). Examples of the issues addressed by the research and development projects include, for instance, the applicability of new technologies to the development of cluster members' products and the methodology of the application thereof; distributed backup environments; proactive monitoring of applications; automation of information system development management; information system security; server housing (server virtualisation, application clustering, geographical backup) etc. The cluster's joint projects also include: establishment of a research and testing ICT centre as a technology base for the cluster's activities; improving the qualifications of project implementers; providing organisational support; providing scientific and professional information. The cluster's other activities include the cluster's promotion and marketing, human resource development, and support to the cluster's internal processes.

Cluster outputs – examples:

HIT Cluster performs research in two main areas: Application of new know-how from ICT sector for development of products for customers and Development of ICT companies. Nowadays, cluster is conducting 15 R&D projects and it employs 48 experts. In the area **Application of new know-how from ICT sector for development of products for customers** cluster realised 12 common projects since May 2010 until September 2012:

- 1) Innovative methods of efficiency analyses of database servers
- 2) Connection of systems for the identity administration to the algorithms for analyses of entry permissions and users roles modelling
- 3) Research on low-cost solutions of data centres with high availability
- 4) Research and application of techniques and tools for mutual integration of individual strata of applications created in different environments with a focus on investment protection
- 5) Research of innovation potential of modern open-source technologies for automatic data collection, processing, analysing and presentation in the form of management information
- 6) Research of usability of new technologies in development of new products of cluster members and methodology of its implementation
- 7) Research of usability of statistical methods and measurement for software support of risk planning and management
- 8) Research of possibilities of enhancing the quality of public administration by using of modern management methods and Business Intelligence technology
- 9) Tools for human resources development



Registered Office

Nám. Svobody 331,
Hradec Králové 50002

Legal form

Interest association of legal entities

Date of establishment

November 2008

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www.hitklastr.cz

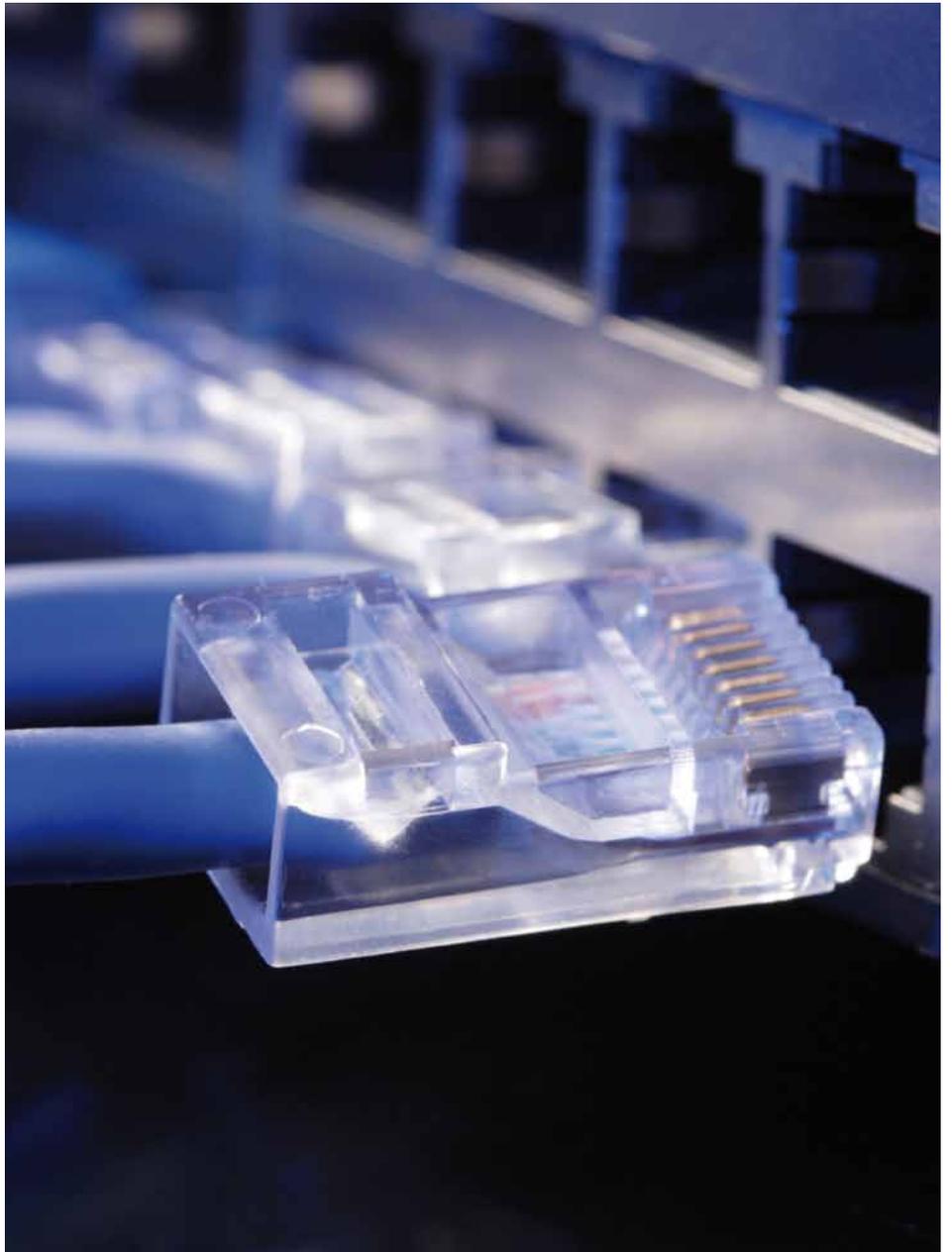
- 10) Proposal and definition of XMPP standards
- 11) Proactive monitoring of ICT applications
- 12) Research of usability and development of multimedia, video conference and communication technology

Outputs of these projects will be used by cluster members for development of new products and innovation of existing products

In the area **Development of ICT companies** cluster realised 3 common projects since May 2010 until September 2012:

- 1) Research on enhancing productivity of software testing processes in ICT companies
- 2) Research of methods, tools, techniques and organisational structures used in product management process optimisation with the impact on new ICT product development management
- 3) Research on enhancement of innovation potential of ICT companies

Outputs of these projects will represent proposals to improve functioning of member firms in given technology sphere.





Registered Office

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Legal form

Civic association

Date of establishment

January 2006

Contact

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Cluster Manager
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www.itcluster.cz

Mission: cooperate closely with educational institutions to create a favourable environment for all-round development of IT specialists with a view to developing cluster members' human resources; create conditions for maximum utilisation of synergies of the manufacturing and development potentials in information technology and related areas; support innovation processes, research and development of cluster members' activities; support communication between business, public, self-government and non-profit organisations pursuing similar goals; contribute to successful implementation of the development and social programmes of cluster members and the Moravian-Silesian Region; offer consulting services to its members; organise seminars focused on the issues of the cluster itself and on IT and related issues.

Business focus: 62000 – Information technology activities

Number of cluster members: 47

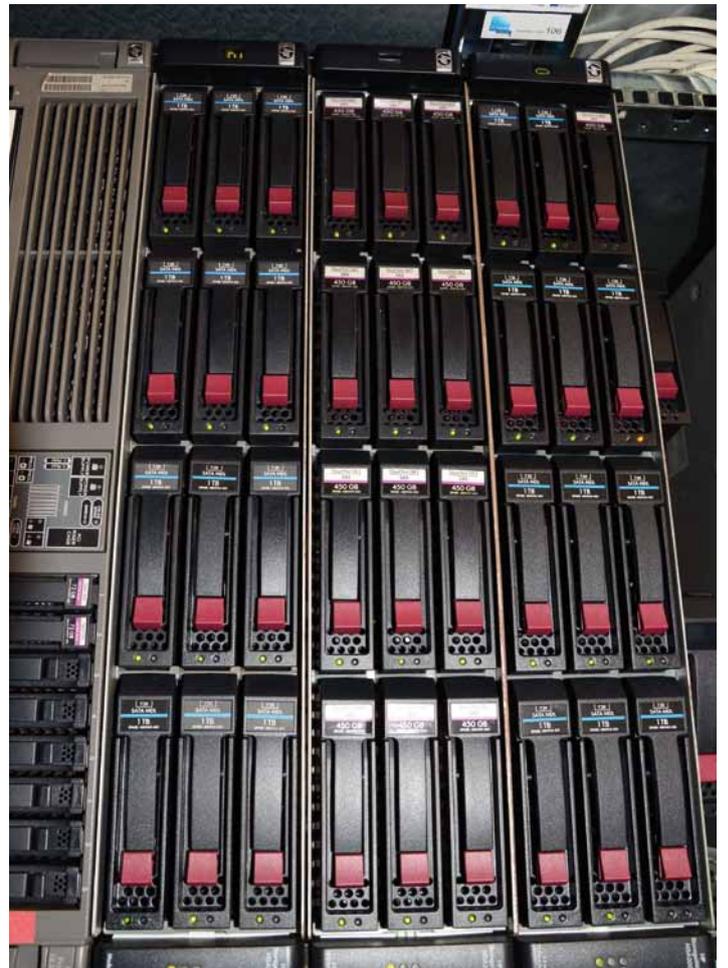
Activities: The cluster's core activities include research projects in the following areas: software service quality, including the methodology of the software development process; IT service management (ITSM) for small and medium-size enterprises; development of supervision facilities for service management and IT service management, and their impact on the quality of the provided services; designing a method for the application of such facilities in businesses outside the IT sector; wireless services with research projects focused on more accurate mobile phone call location; research and development in mobile technology – using the potential of 3G networks and developing Intelligent Traffic Systems. Last but not least, there are development projects concerning business products with focus on Open Business Intelligence, operation of the IT infrastructure for solutions based on the SOA concept, and CAPI solution for the cluster – mobile marketing.

Cluster outputs – examples:

Improved mobile call location is one of the interesting new project outcomes of the IT cluster. The system provides prompt identification of the approximate location of a calling party, using the facilities within the mobile operator's network. It should be emphasised that no GPS or Galileo satellite navigation is involved and that the location of the calling party is estimated according to the calling party's BTS and the local characteristics of the network. The calling party can be identified even inside buildings, where satellite navigation does not work.

The method can be used with advantage for improving the quality of reception of emergency calls both in the Czech Republic and abroad. The improved mobile call location method can be used in practice by mobile network operators, service providers as well as businesses and non-profit organisations. This method took two years to develop and was carried out under the project of "IT Cluster Development 2009-2012", which was supported under the OPEI Development Programme (Cooperation – Clusters).

At present the IT Cluster is also involved in activities supporting and promoting the teaching of technical subjects. The objective is to encourage interest in studying technical professions among the pupils of elementary and secondary schools and to increase the numbers of people with technical education entering the labour market as qualified technical specialists.





Mission: Build a prestige modern production and development base for precision engineering and precision locksmithing, based on high-quality human resources and leading-edge technologies.

Business focus: 28000 – Manufacture of machines and equipment, n.e.c.; 25000 – Manufacture of metal structures and metalworking products, except machines and equipment; 72000 – Research and development

Number of cluster members: 23

Activities: The cluster's research and development efforts are focused on carrying out the following projects: Monitoring of manufacturing machines; Research and development in materials technology and designing of stainless pools, including pool technology, as a final product; Monitoring & targeting to optimise energy input in energy management systems, in buildings and technological equipment; Developing a boiler with a burner system enabling to use cheaper bio-pellets of poorer quality which a greater ash content; Tool data management; Equipment of a laboratory and the acquisition of machines to make prototypes; Applied development and industrial research focused on the manufacturing technology for the production of a next generation roofing; Development of new machines and innovative systems for orchards, vineyards, forestry and agriculture; Development of new manufacturing technologies and products from recycled and renewable alternative materials; Research and development of new compounds for metal finishing; Research and development of stoves and renewable energy sources; Development of a base software system for advanced planning – APS in engineering product manufacturing; The cluster is also involved in activities related to information exchange within and outside the cluster – the KPSV information portal and activities to promote the Vysočina Precision Engineering Cluster.

**Registered Office**

Pražská 105,
Moravské Budějovice

Legal form

Civic association

Date of establishment

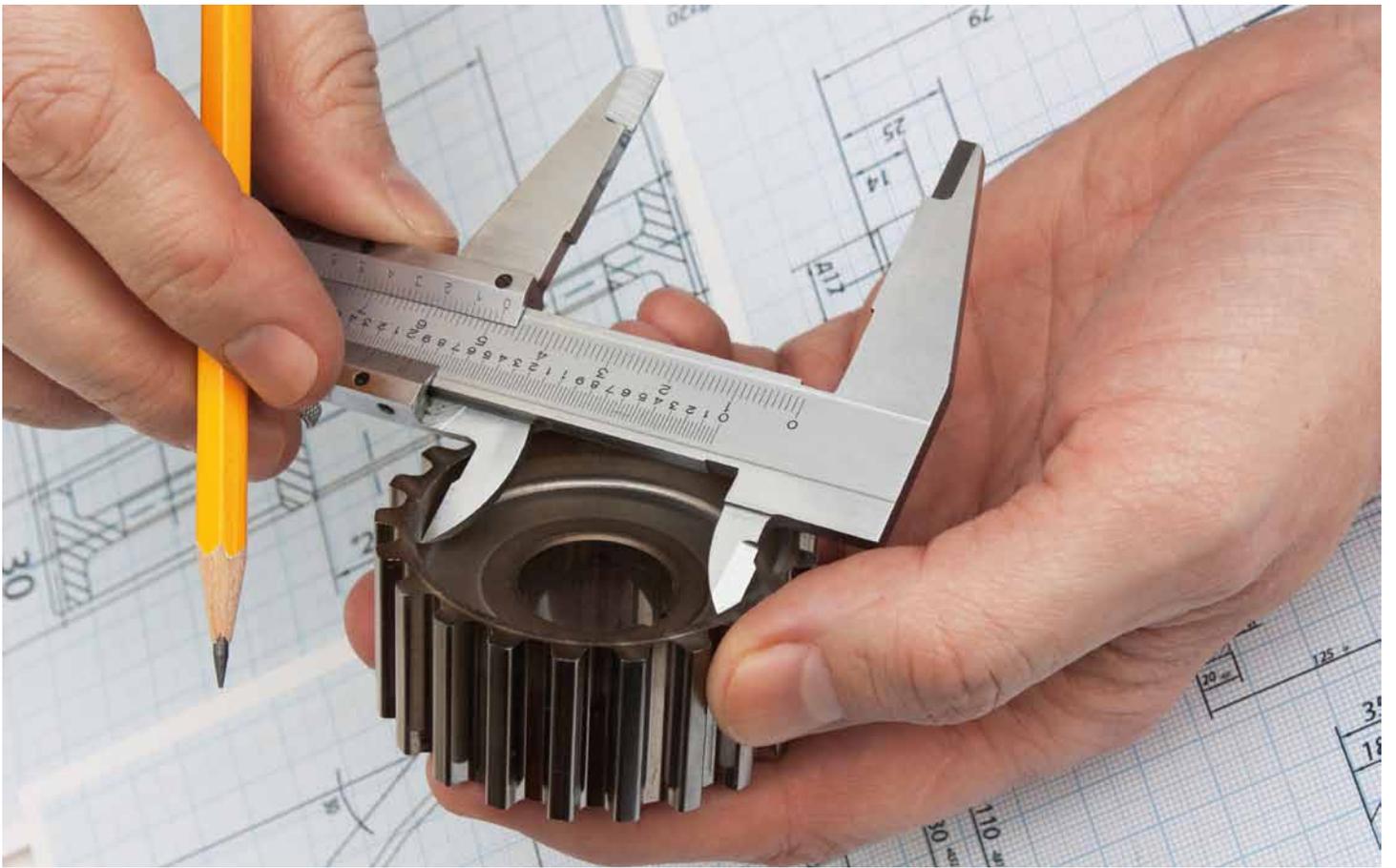
August 2007

Contact

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www.kpsv.cz





IT? Secured!

Mission: Become a centre of excellence in the field of computer network security. The Masaryk University is the core of the cluster – network security research, which is being practically developed in NSMC's activities, has been conducted by the Masaryk University for already several years.

Business focus: 620 – Information technology activities; 461 – Wholesale on fee or contract basis; 69200 – Accounting, bookkeeping and auditing activities, tax consultancy; 7219 – Other research and technical development on natural sciences and engineering; 731 – Advertising; 73200 – Market research and public opinion polling; 74 – Other professional, scientific and technical activities; 855 – Other education services; 900 – Creative, arts and entertainment activities; G – Wholesale and retail trade; repair and maintenance of motor vehicles.

Number of cluster members: 19

Activities: As one of a consortium partners, the NSMC cluster is currently taking part in preparing the FIRE project, financed under the 7th Framework Programme. Implementation of the FIRE project is scheduled to start in September 2012 and to continue until August 2014. Another project, in which the NSMC cluster is involved as a regional partner for the South Moravian Region, is referred to as Practical Academy of IT Knowledge and is focused on cooperation between universities and business. The objective is to offer on-the-job training to students while studying and thereby to help them gain some practical skills. Activities supporting talented students are carried out and start-ups are established under the project. The cluster cooperated with the University of Žilina (Slovakia) under the Centrope TT project to study and evaluate the security of the University's computer network. This project was received very favourably. Together with other clusters, the NSMC takes part in the CNCB, Cluster-Cord and C-Plus cluster projects. The cluster actively participates in technical conferences (INTEROP v Las Vegas, EICAR in Austria or ISSE in Prague), organises information activities and provides networking for its members, and is active on the regional level (participation in developing the 2012-2014 regional innovation strategy of the South Moravian Region); it cooperates with students and young talents (offering internships and on-the-job training), informs the public about computer threats, comments on technical texts, issues popular science publications and cooperates closely with the academic sphere.



Registered Office

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624 00 Brno - Komín

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Cooperative society

Date of establishment

May 2010

Contact

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www.nsmcluster.com



Mission: support the construction of biogas stations and apply Czech products, services and work in such construction projects; on a long-term basis, identify new business opportunities for the export of products and services in this field.

Business focus: 20110 – Manufacture of industrial gases; 72110 – Research and development on biotechnology

Number of cluster members: 18

Activities: the cluster's core activities are aimed at creating a facility furnished with experimental and analytical equipment with focus on measuring the physical and chemical parameters for the simulation of the anaerobic digestion process and for research and development with a view to optimising the operation of biogas stations and operation of a set of laboratory fermenters with automated control and measurement of process parameters. Its other activities include efforts to optimise and automate the process of anaerobic digestion and the preliminary treatment of raw materials and utilisation of new raw materials for biogas generation; to improve the energy efficiency of biogas stations; enhance the environmental benefits and improve the working environment; and to develop the technological parts of the biogas stations, which can be made in the Czech Republic. The Biogas cluster also promotes the construction of biogas stations in the Czech Republic and supports efforts to raise public awareness about gas production and the possibilities of its use. A promotion campaign entitled "Biogas to Develop Countryside" will be launched in September 2012 to inform the public about the cluster's activities and the possibilities of using biogas both in agriculture and industry.



Registered Office

Hájecká 215, Červený Újezd

Legal form

Interest association of legal entities

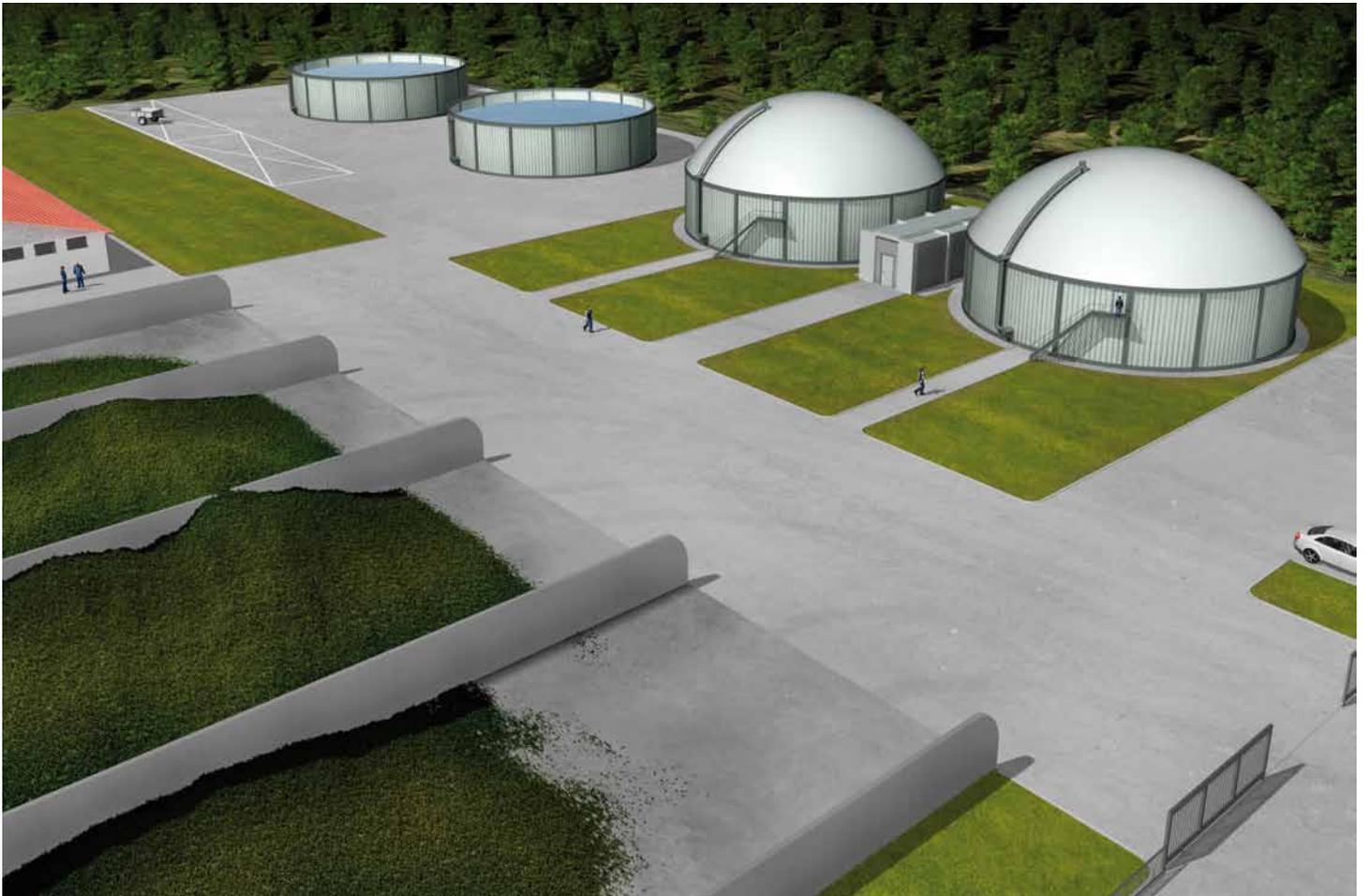
Date of establishment

May 2010

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www.klastrbioplyn.cz



Mission: Support to competitiveness of the members of the cluster

Coverage: The members of the cluster are distributed all around the Czech Republic.

Business focus: 28000 – Manufacture of machines and equipment, n.e.c.; 281400 Manufacture of other taps and valves; 281300 Manufacture of other pumps and compressors

Number of cluster members: 64

More information about the cluster: The National Engineering Cluster is the first cluster established in the Czech Republic (in 2003). Initially it operated on a regional basis under the name Moravian-Silesian Engineering Cluster. By 2008 its activities had covered the entire territory of the Czech Republic and, as a result, it changed its name National Engineering Cluster. At present it has 64 members from the areas of research and development, education and industry, representing 27,000 employees, and with total sales of CZK 57 billion.

Activities: The cluster's current activities include: purchasing alliance (joint purchase of selected commodities, gas, power); supply chains for manufacturing of the coal fired and nuclear power plants; educational projects (educating cluster members' employees in the nuclear energy issues); innovation projects and PR activities (organising conferences with international participation, addressing current topical issues – for example nuclear energy, transport of heavy components etc.).



Registered Office

Ruská 2887/101,
703 00 Ostrava – Vítkovice

Legal form

Civic association

Date of establishment

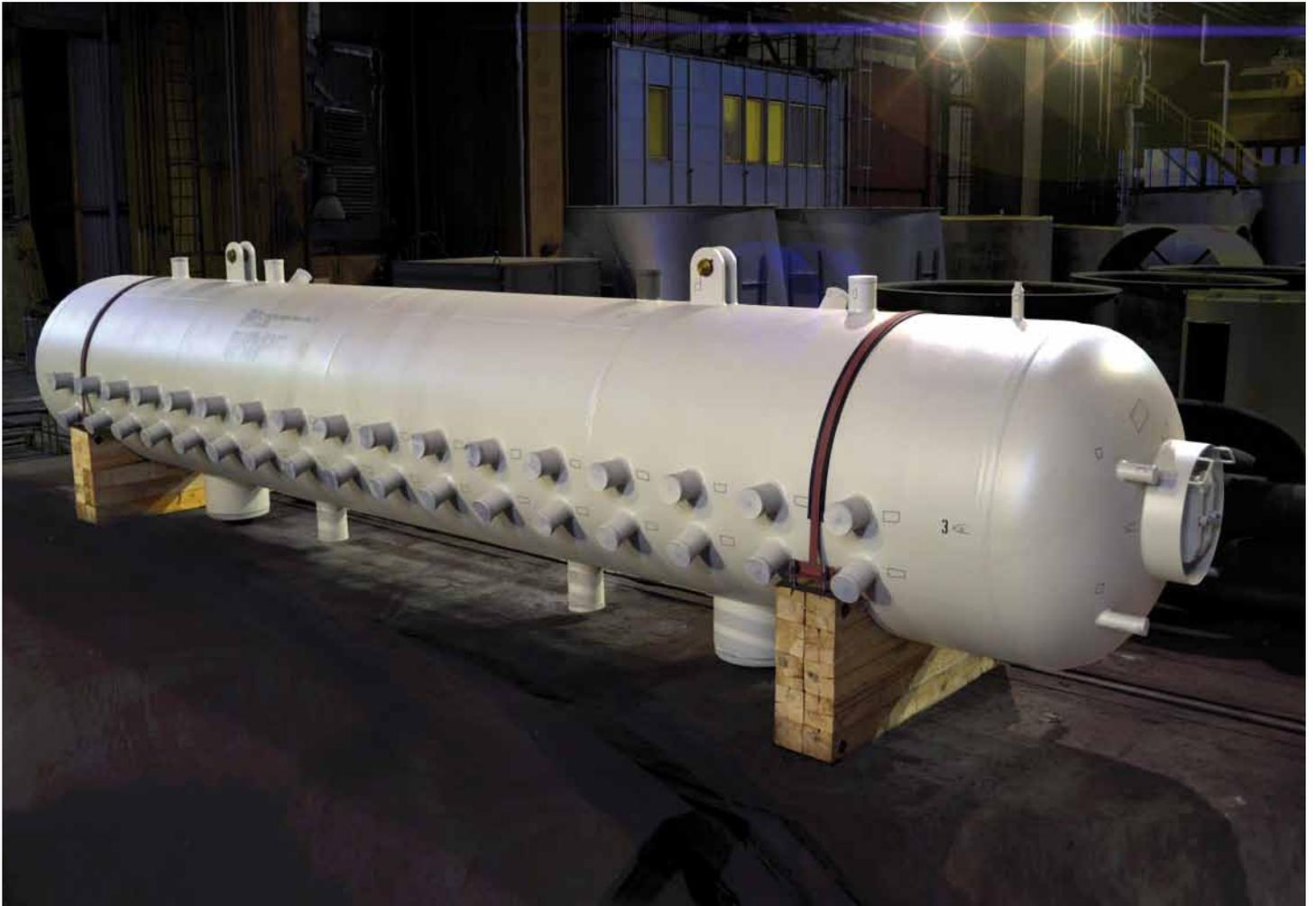
May 2003

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www.nskova.cz





List of Cluster Organizations in the Czech Republic

Cluster	Specialization	Established	Region	Contact
ABC WOOD, o.s.	Lumbering, woodprocessing	2007	Zlin	www.abcwood.cz
ATOMEX GROUP, z.s.p.o.	Nuclear energy	2009	Central Bohemia	www.atomex.cz
Bezpečnostně technologický klastr, o. s.	Security technology	2010	Moravia-Silesia	www.btklastr.cz
CGMC, družstvo	General engineering	2009	South Bohemia	www.maestroj.cz
CLUTEX - klastr technické textilie, o.s.	Textile industry	2006	Liberec	www.clutex.cz
CREA Hydro&Energy, o.s.	Waterworks, energy	2008	South Moravia	www.creacz.com
Czech Cloud Cluster	Information technology activities	2012	South Bohemia	www.czechcloudcluster.cz
CZECH IT CLUSTER, družstvo	Information technology activities	2010	Vysocina	www.czech-itc.cz
CZECH STONE CLUSTER, družstvo	Cutting, shaping and finishing of stone	2007	Hradec Kralove	www.czechstonecluster.eu
CzechBio - asociace biotechnologických společností ČR, z.s.p.o.	Biotechnology	2009	Central Bohemia	www.czechbio.org
Česká peleta, z.s.p.o.	Wood processing, manufacture of wood	2010	Central Bohemia	www.ceska-peleta.cz
ČESKO - SLOVENSKÝ PRŮMYSLVÝ KLASTR	Information technology activities, engineering	2011	Zlin	www.csklastr.eu
Český IT klastr, z.s.p.o.	Information technology activities	2009	South Bohemia	www.ceskyitklastr.cz
Český nanotechnologický klastr, družstvo	Nanotechnology	2006	Olomouc	www.nanoklastr.cz
Český pivovarský klastr, z.s.p.o.	Manufacture of beer	2008	South Bohemia	www.pivovarskyklastr.cz
Český řemeslný klastr, o. s.	Manufacture of bijouterie and related articles	2012	Liberec	slamova@gbbeads.cz

Cluster	Specialization	Established	Region	Contact
Český telekomunikační klastr o.s.	"Communication, mobile network"	2010	Moravia-Silesia	www.projekt-mvno.cz
Český vědomostní klastr, o.s.	Cultural heritage	2011	Prague	www.ceskyvedomostniklastr.cz
Družstvo ENVICRACK	Alternative energy source	2006	Moravia-Silesia	www.envicrack.cz
ELECTRA-CITY	Urban logistics, e-mobility	2012	South Moravia	www.electra-city.cz
EKOGEN	Environmental construction	2006	South Bohemia	www.ekogen.cz
ENERGOKLASTR	Energetics	2008	South Moravia	www.energoklastr.cz
ERGO-MED-KLASTR o.s.	Ergonomics, prosthetics	2011	Central Bohemia	www.ergomed.cz
Hradecký IT klastr	Information technology activities	2008	Hradec Kralove	www.hitklastr.cz
IQ Klastr, z.s.p.o.	Information technology activities	2010	South Moravia	www.iqklastr.cz
IT Cluster, o.s.	Information technology activities	2006	Moravia-Silesia	www.itcluster.cz
Jihočeský dřevařský klastr. z.s.p.o.	Wood processing, manufacture of wood	2007	South Bohemia	www.jcdk.cz
Jihomoravský stavební klastr, občanské sdružení	Building industry	2012	South Moravia	boh@inuv.cz
KLACR	Tourism	2008	Moravia-Silesia	www.klacr.cz
Klastr aplikovaných biotechnologií a nanotechnologií, z.s.p.o.	Biotechnology	2012	South Bohemia	www.kban.cz
KLASTR Bioplyn, z.s.p.o.	Manufacture of industrial gases	2010	Central Bohemia	klastrbioplyn.cz
Klastr českých nábytkářů, družstvo	Manufacture of Furniture	2006	South Moravia	www.furniturecluster.cz
Klastr ENWIWA	Waste management	2008	Karlovy Vary	www.enwiwa.eu/cz

List of Cluster Organizations in the Czech Republic

Cluster	Specialization	Established	Region	Contact
Klastr inovativních technologií o.s.	Technology	2011	Vysocina	navrkalova@hktrebic.cz
Klastr MECHATRONIKA o.s.	Mechatronics	2011	Plzen	www.klastrmechatronika.cz
Klastr NetPro Group, z.s.p.o.	Development of systems for intelligent control	2009	Karlovy Vary	klastr@netpro.cz
Klastr NUTRIPOL	Food industry	2009	Hradec Kralove	www.nutripol.eu
Klastr obnovitelných zdrojů energie, z.s.p.o.	Production of electricity	2012	Central Bohemia	www.koze.cz
Klastr povrchové úpravy a.s.	Surface modification	2009	Pardubice	marek.schiller@synpo.cz
Klastr průmyslu a výzkumu pro aktivní život	Research and experimental development on social sciences and humanities	2012	Olomouc	metod-konzult@seznam.cz
Klastr přesného strojírenství Vysočina	Manufacture of machines and equipment	2007	Vysocina	www.kpsv.cz
Klastr SPIN-ENERGETIKA CZ o.s.	Manufacture of special electrical equipment	2008	Pardubice	zkoutajan@seznam.cz
Klastr výrobců obalů, družstvo	Manufacture of paper and paperboard products	2005	Hradec Kralove	www.klastromnipack.cz
Klastr výrobců potravinářských technologií, družstvo	Manufacture of machinery for food	2009	Vysocina	aucon@aucon.cz
Klastr Zelený Horizont, o.s.	Materials recovery, waste management services	2011	Moravia-Silesia	www.zelenyhorizont.cz
Knowledge Management Cluster, o.s.	Entrepreneurship	2006	Moravia-Silesia	www.kmcluster.cz
MedChemBio	Biomedicine	2009	Olomouc	www.medchembio.cz
Moravskoslezský automobilový klastr, o.s.	Manufacture of other parts and accessories for motor vehicles	2006	Moravia-Silesia	www.autoklastr.cz

Cluster	Specialization	Established	Region	Contact
Moravskoslezský dřevařský klastr, občanské sdružení	Wood processing, manufacture of wood	2005	Moravia-Silesia	www.msdk.cz
Moravskoslezský energetický klastr, občanské sdružení	Manufacture of electrical equipment	2008	Moravia-Silesia	www.msek.cz
Moravský lesnický klastr, o. s.	Forestry and logging	2010	Moravia-Silesia	www.lesnickyklastr.cz
Moravský letecký klastr, o.s.	Aerospace industry	2010	Zlin	www.aero-cluster.cz
NANOPROGRES, z.s.p.o.	Nanotechnology	2010	Prague	www.nanoprogres.cz
Národní strojírenský klastr, o.s.	Manufacture of machines and equipment	2003	Moravia-Silesia	www.nskova.cz
Network Security Monitoring Cluster, družstvo	Information technology activities	2010	South Moravia	www.nsmcluster.com
NO DIG Klastr	Trenchless technology	2012	Olomouc	metod-konzult@seznam.cz
NutriKlastr o. s.	Manufacture of other food products	2011	South Moravia	www.nutriklastr.cz
Olomoucký klastr inovací, družstvo	Information technology activities	2006	Olomouc	www.iteko.cz ; www.o-k-i.cz
Plastikářský klastr	Manufacture of plastic products	2006	Zlin	www.plastr.cz
Průmyslový klastr	Manufacturing industry	2009	Zlin	www.rckas.cz
Regionální potravinářský klastr - Chutná hezky. Jihočesky	Food industry	2009	South Bohemia	rpklastr.mojedomena.cz
Sdružení NIPAS, o.s.	Low energy and passive house construction	2006	South Bohemia	www.nipas.cz

Services for clusters set-up by the ClusterCOOP project

Clusters and cluster organizations who are the key target groups of the project Cluster COOP will benefit directly through the developed and operated tools, the Virtual Interactive Platform and the Cluster Contact Points, which will be helping clusters to access state of the art information and knowledge on the various aspects and possibilities of transnational cooperation.

Cluster Contact Points

The Contact Point phenomenon is not new for the different programming bodies, agencies and institutions who believe that personal contact is an important tool of knowledge sharing & advice. Initiating inter-cluster cooperation, or getting to know the framework conditions of such cooperation is a new field, on which clusters and management organizations need up-to-date and professional assistance.

A network of Cluster Contact Points represents a new "institution" embedded in the 5 partner countries (Czech Republic, Hungary, Italy, Poland and Slovakia), which will be operating during and after the project as well. The network will create an effective tool for facilitating the transnational cooperation of clusters.

Virtual Interactive Platform

The platform will serve as a reference point for clusters / cluster organizations, who wish to know more about transnational cooperation, and want to exchange thoughts/experience/problems/knowledge or just wish to search for project partners.

The platform was created for clusters in the frame of a pilot action. This platform acts as a dynamic service and knowledge centre for clusters, cluster management organizations and cluster members to access up-to-date knowledge on current issues and trends regarding trans-national cluster cooperation. A partner-search facility, and a constantly updated database of current supporting programmes and initiatives will be also featured on the platform. Moreover, all knowledge gathered by the project will be accessible through the website, hence the Platform will be an important tool of knowledge management as well.

clustercoop.eu

clustercoopproject.eu

Cluster Contact Point Agents

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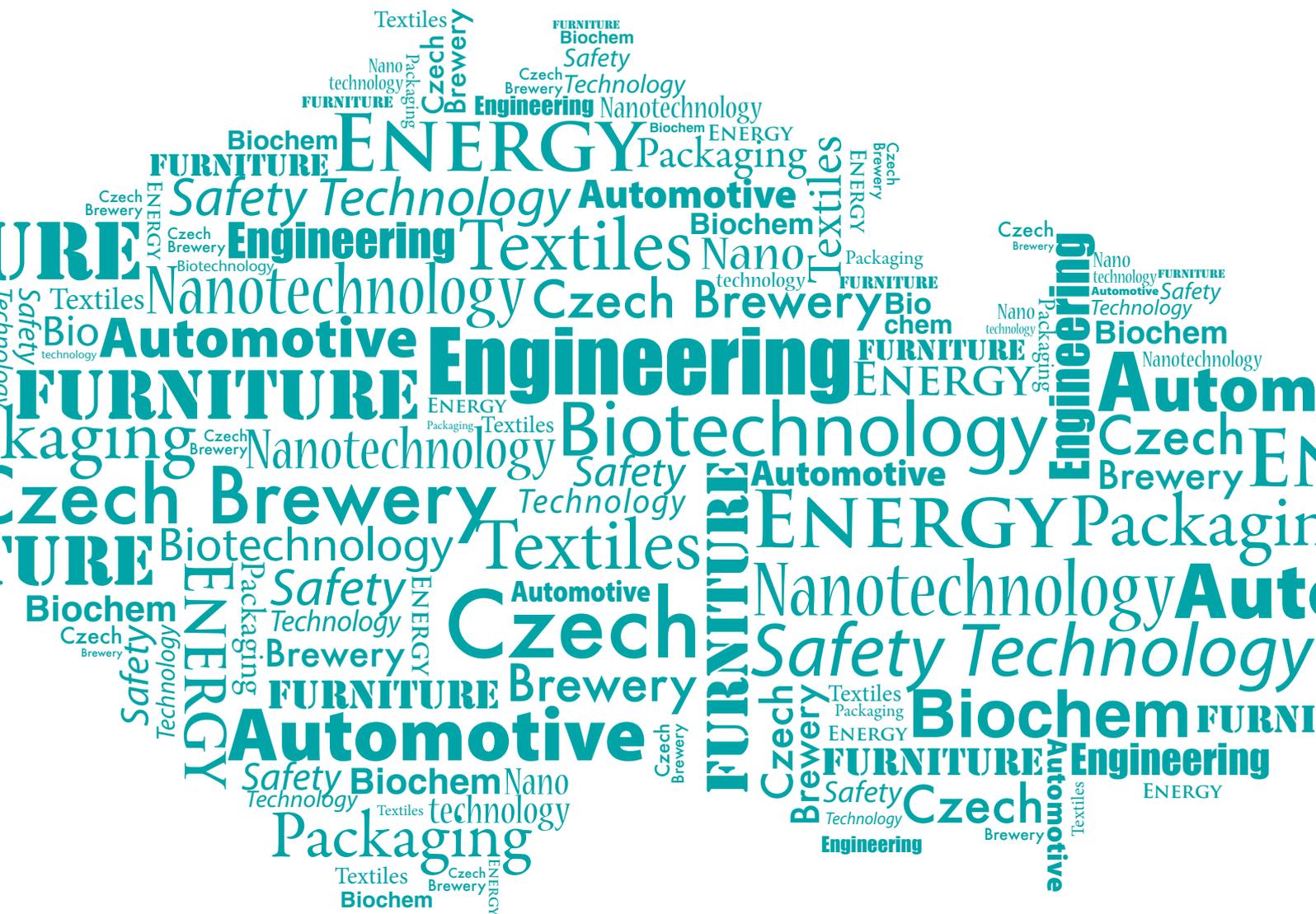
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