

IT Cluster

Cooperative IT Environment

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Awards



European Cluster Excellence Initiative Bronze Label Certificate:

CZE002201302CIP0403

IT Cluster

was benchmarked according to a benchmarking approach developed and performed by the "European Secretariat for Cluster Analysis" of VDI/VDE Innovation + Technik GmbH (www.cluster-analysis.org). By participating in this benchmarking the cluster organization has expressed its interest in striving for cluster excellence and is awarded with the European Cluster Management Excellence label in BRONZE. The benchmarking took place on February 18th, 2013. The certificate expires on February 18th, 2015.

Thomas Lämmer-Gamp, Director
European Secretariat for Cluster Analysis, Berlin

Helmut Kergel, Director
European Secretariat for Cluster Analysis, Berlin

History of ITCluster

- ITCluster was established by **18 companies and organizations** in January 2006.
- Right now ITCluster has **22 members** including global companies like Tieto, Vitkovice ITS, Autocont, and ... **Technical University of Ostrava**.
- The main goal is to provide **cooperative environment for business, research and education**.

Mision

People for IT ■ IT for People



- People for IT
 - Provide sufficient number of graduates in a required quality
 - Define and to provide longlife education in the area of Information and Commmunication Technology
- IT for People
 - Research and development should be accepted as a shared future. Not just troubleshooting of short term problems.
 - Research and development should satisfy requirements of the region.
- Marketing and communication
 - Focus on common projects driven by concrete needs of cluster members.

Vision

- **Building a platform** for the shared communication among IT companies and institutions.
- **Guarantee of quality** based on interconnection of the university and IT industry.
- **Partnership for region development** – the ambition is to move region towards technologies with the high-added value.
- **Cooperation with other industry fields** means to listen to their needs and positively influence their behavior.
- **Shared activities of cluster members** means cooperation and formation of synergy effects.

22 Companies - 1 Face



Operability Model

- ITCluster serves as an **attractor** for IT projects where the scope is larger than a potential of every single member.
- ITCluster serves as a **generator** of the virtual company established to solve such kind of projects.
- ITCluster is a **platform** for communication and partnership among cluster members and its customers.



- ITCluster does not offer **a single special product**.
- ITCluster produces **synergic effect of cooperation** among companies and institutions.



Layout of Operation

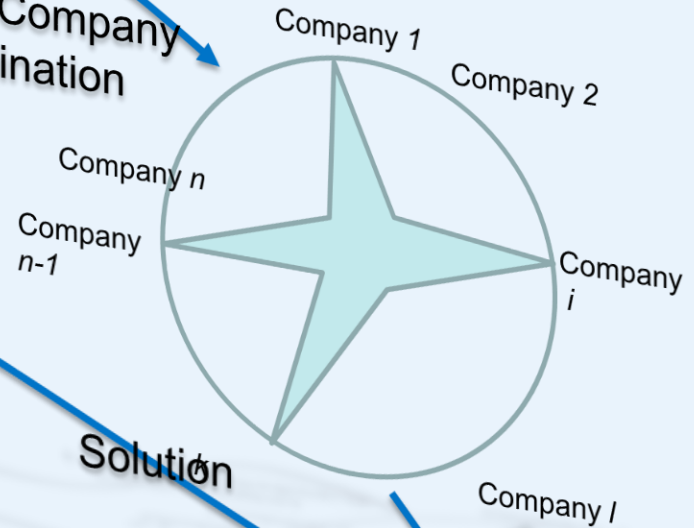


Request

Product



Virtual Company Origination



Solution

Activities Overview

- **Development**

- Development and implementation of information systems
- Development of Internet-based technologies and applications
- Development in the area of mobile technologies
- Development in the area of telecommunications
- Multimedia presentations

- **Services**

- Production, sale and administration of computer systems
- Monitoring and guarding of car fleets
- Consulting in the area of IT
- Graphic art and marketing

- **Education**

- Education in the area of IT
- Lifelong education including certified courses
- Language education, interpreting and translating services

Events Overview

- Workshops
 - Security in IT
 - GDPR Q/A
 - Intelligent traffic systems,
 - Project management
 - Workshops with other clusters
 - International Cooperation

Projects Overview

„Research and Development project IT Cluster 2016 – 2019“

- Implementation of inventory optimization using advanced mathematical methods
- Development of a system for the efficient removal of municipal waste

Projects Overview

Implementation of inventory optimization using advanced mathematical methods

The result of the project will be software that will use the most advanced technologies available for storing, transferring, persisting data sentences. Specifically, we plan to use .NET 4.6, Framework to create and run neural network, MS SQL, WCF 4.6, WebAPI, ASP.NET.

Projects Overview

Implementation of inventory optimization using advanced mathematical methods

Advanced mathematical methods for work with structured and unstructured data, especially neural networks and fuzzy logic, will be used.

Projects Overview

Implementation of inventory optimization using advanced mathematical methods

The result of the project will be a software solution that will allow for example to predict the consumption of products and materials in a broad segment of human activity. Everywhere where products, semi-finished products or material can be traced back to the historical value of consumption, and to determine the parameters on which consumption is dependent, which influence it. Examples of parameters (temperature, weather, sales events, closures around sales points, related product events, launch of new products ...)

Projects Overview

Implementation of inventory optimization using advanced mathematical methods

The project outputs are applicable to all domestic and foreign companies that want to manage their warehouse processes and logistics, manufacturing companies, wholesale and retail companies in the long run, logistics operators who want to add high value to their customers in structuring recommendations and the amount of items stored.

Projects Overview

Development of a system for the efficient removal of municipal waste

The project described in this document aims to develop a system that will measure actual requirements for:

- the intensity of the waste collection
- optimization in order to minimize the total costs of securing
- the ability to assign the costs of the assignment to the entities to which the service is provided.

Projects Overview

Development of a system for the efficient removal of municipal waste

In the project, we develop and test equipment that identifies waste containers by contactless and accurately measures their weight during the loading and unloading phase. By collecting these data, the waste shipment (municipal garbage services) will obtain information on how much waste is produced and whether the collection periods are optimal.

Projects Overview

Development of a system for the efficient removal of municipal waste

Similar systems are deployed on new cars with an approximate value of around CZK 4 to 5 million, because of the fact that the equipment alone of the vehicle identification and weighing system costs from 600 to 800 thousand CZK. CZK. The service life of the garbage truck is around 15 years. Municipal services often can not afford to invest this amount in the equipment of older cars. A majority of this amount (75%) is a weighing system.

Projects Overview

Development of a system for the efficient removal of municipal waste

It is the focus of the project and aims to find technology that will be significantly cheaper and as reliable or reliable as the current one. This would remove the barrier in mass deployment of these systems.

Projects Overview

Development of a system for the efficient removal of municipal waste

Another aspect of existing solutions that will attempt to remove the project is higher demands on attendant IT systems that are part of the used technologies (terminals, industrial PCs, vehicle cabin identification devices, printers, etc.). Operations of the car are thus more heavily burdened by new tasks. The project will also focus on the maximum simplification for car service.

HR development (People for IT)

- **Cooperative Education**
 - Continue and reinforce conditions for providing bachelor and magister praxis in IT regional
 - Creating diploma thesis assignment based on IT companies requests

- **Common approach to the promotion of information technologies at secondary schools**
 - Joint action towards secondary schools, especially grammar schools.
 - Project proposal and its implementation.

R&D and Innovations (IT for People)

Information technologies for data mining and data optimization

- Intelligent warehouse systems.
- Usage of mobile technologies.

Development of services for nature

- IT strategies and their implementation.
- Intelligent waste collection

Marketing and PR

- Reinforcement of ITCluster brand.
- Organization of professional events.
- Organization of social events like christmas party.

Future visions ...

Moravia-Silesian Region

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IT Region