SKILLS+ Interreg Europe

Inovation management and technology transfer

European Union European Regional Development Fund

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INTRODUCTION

1.1 Where to find us

Ostrava, Czech Republic www.vsb.cz





1.3 Moravia Silesian

Region 1,2 mil. inhabitants 230 inhabitants/km² Vrbno pod Pradědem Krnov Bruntál Kravaře Opava

O Hlučín Rýmařov Bohumin Karviná MORAVSKOSLEZSKY Orlová Vítkov Vratimov (Bilovec Havířov Ceský Těšín Fulnek Frýdek Odry Třinec Nový Jičín Jablunkov Kopřivnice Frýdlant nad Ostravicí Frenštát • pod Radhoštěm

- 1994 Closing of mines in Ostrava (after 200 years)
- RESTRUCTURING 120.000 people lost their jobs









Development of the Company since 1828

in 1810; Spottish engineer John Baildon prepared a plan to build an iron works centre in Ostrava. Clomous archbishop archituke Rudelf Jan. supported the plan, and the foundations of the Wikovice Iron-Worlds

Franz Xavier Riegi, a professor of the Wenna Polytechnic institute. responsible for implementing the steam railway project from Wents to Krakow (stopping in Ostrava) also supported the plan.

In 1843, the strongest of the stateholders of the Wikovica Corporation, Salomon Mayer Rothschild, bought out the shares of the Olemous Bishopris, and integrated it with the Instal coalmines he had also purchased. The iron works had its own blast turnace plant with a foundry a puddle plant, rolling mill, forga, boiler shop, machinery shop, brick production shop, and other shops.

Under the Rothschilds, new shops and production programs were added to further the development of the works. In order to need the growing dumand for nailway rails, the Angel in Rolling Mill Plant was built in 1847. A third blast furnace was added in 1896. A new method of iron refining known as the Bessemer process, was introduced in 1868. In 1872, a new Scottish blast furnace was installed, at that time the largest of its kind in the Austra-Hungarian Monarchy. The machinery shop built steam engines, bridges railway wagons mining machines, steel plant machines, reitway wheels and rail switches,



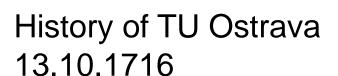


Roser Review Blogs



Vitkovice

Official multipation of the decision of the Architectup of Clarenac to set up a paddly flarger for box production



















WPFF Paris

2. Sustainable Energy – Priority at VŠB – TU Ostrava

2.1 VŠB – Technical

University of Ostrava













1849 School of mines - Příbram Faculties

- 1945 Ostrava
- 1989 7000 Students (Mining, Metalurgy, Heavy machinery)

7 Faculties23,000 Students

VSB-Technical University Ostrava

www.vsb.cz, over 160 years tradition
Over 50 years experience of the Institute of Energy utilization



2.2 Sustainable Energy – Priority on VŠB-TUO

Energy research centres VSB-TUO Built utilizing EU funds Energy Institutes







Logistic systems

Odpady, vedlejší produkty Waste, byproducts

Fosilní paliva Fossil fuels

Slunce Sun

Biomasa Biomass

VP02 - část Úprava a doprava paliva Fuel Preparation and Transport

Pyrolýza, zplyňování Pyrolyses, gasification

Fermentace Fermentation Fotovoltaika Photovoltaik Palivové články Fuel Cells Chytré el.sítě Smart Grids

VP02 část Diagnostika zařízení v praxi Diagnostics of machinery at the praxis VP01

Technologie, spolehlivost a bezpečnost Technology, Safety and Security

Technologické transformce pro výrobu kovů Technology transformation for the metal production

Spalování Combustion VP03- část el. enrgie Akumulace a řízení energie Acumulation and steering of energy

Super kapacitory Super capacitors Řídicí systémy Control systems

VP02 - část

Čištění spalin a plynů pomocí nanotechnologie Gas clening by using the nanotechnology

VP03- část tep. energie Akumulace a řízení energie Acumulation and steering of energy

> Hybridní systémy Hybrid Systems



Wind turbines



Solar panel field

Central production



((((0)) Telecommunication



Buildings



Fuel cells





Plug-in hybrid vehicles





Photovoltaic cells





Micro combined heat and power



Combined heat and power



ICT for intelligent control



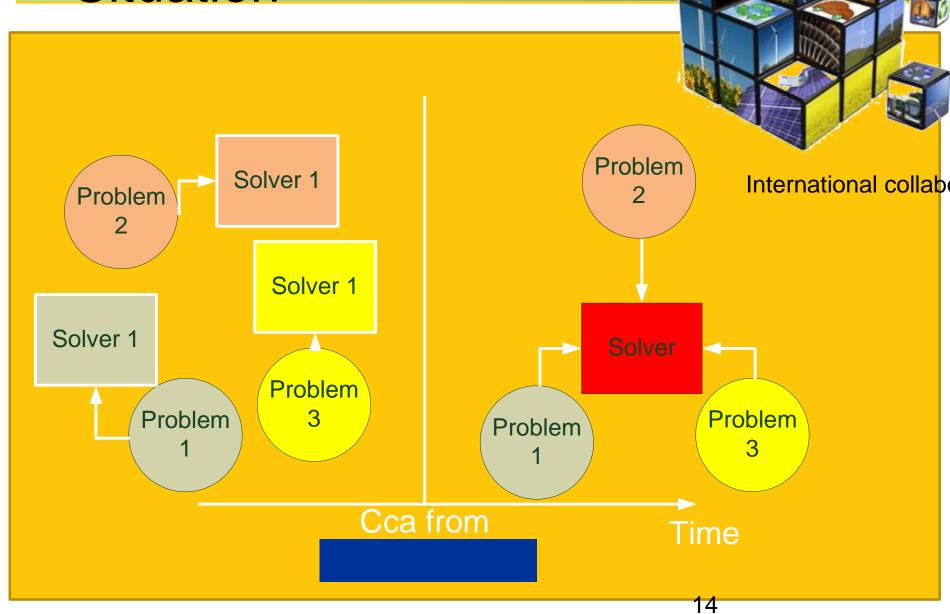
Thermal storage

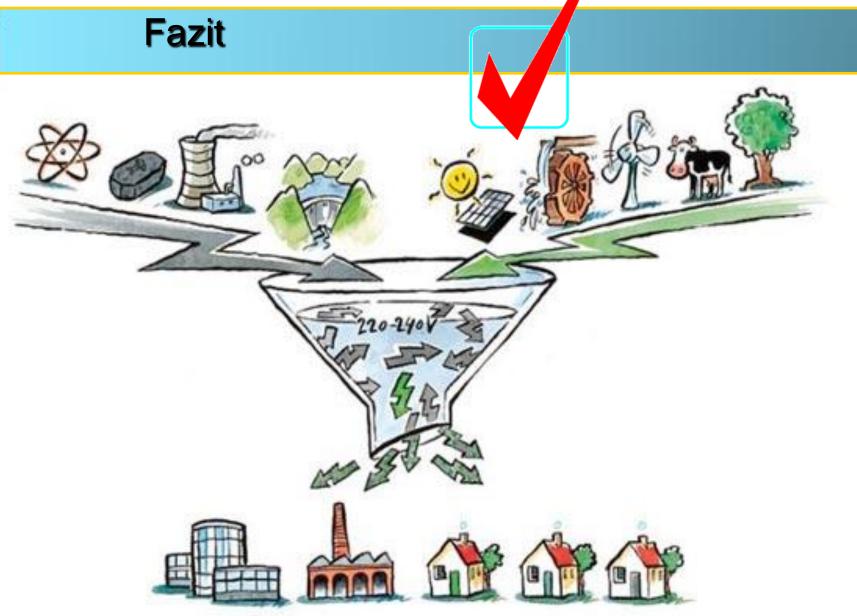




Industry

Situation





http://www.mannstrom.de/cms44/index.php?option=com_content_Lview=article_Lid=21_LItemid=65



Innovation support and cooperation with MSP

1. 2009 Beginning

- Leader prof. Dagmar Juchelková, Ph.D. MSP acqusition and research design for MSP needs
- Experts
 - prof. Helena Raclavská cooperation with public administration and research design
 - -Ing. Marie Kubáňková, Ph.D. fundraising, MPS acquisition, R&D publicity
 - -Ing. Veronika Sassmanová, Ph.D. research activities and research projects
 - -Ing. Petr Pavlík marketing and R&D publicity

Technology transfer and marketing



2. Financial support

- INTER Energy (2009 2012) cooperation with SME interships
- TECHNOLOGY TRANSFER AND INOVATION in agriculture, food processing and bioenergetics – (2012-2014) – setting of transfer mechanisms, seminars round tables with SMEs, www.inovaceztv.cz
- R&D PROMOTION (2012 2015) –marketing of R&D outputs, emarketing www.bioenergetikazvt.cz, www.eie-jinak.eu



Networking

3. Results = cooperation with SMEs & public administration

- Long term cooperation with SME Zemědělský výzkum Troubsko, s.r.o., Agrolab, s.r.o,
- Close cooperation with public authorities Ostrava Municipality,
 Moravian-Silesian region, Třinec Town, TAČR
- Common projects with NGOs Association for the Development of Moravia and Silesia (Sdružení pro rozvoj Moravy a Slezska), Chamber of Commerce, Asociation of Research Organisations
- Technological Economical Environmental czTEE platform www.cztee.eu



Current projects

VSB is currently solving the following projects:

- 1) New innovative technology of composting
 - based on biocarbon (Epsilon TACR with ZVT)
 - using new textile (OP PIK 1st PA with ZERA agency and ZVT)
 - New desing of biogas unit for solid municial waste (Epsilon TACR with ZVT and Agroeko)
 - Assistant of Knowledge transfer Agrolab (OP PIK 1st PA with Agrolab, s.r.o.)



4) Best practices in technological transfer and joint projects in ERDF – OP PIK – 1st priority Axis



ERDF project – OP PIK

The OP Enterprise and Innovations for Competitiveness

- Sub programme funding of Assistant of Knowledge transfer
- Cooperation between university or research organisation and the SME
- ■The contribution of EU funds is 70% of the eligible expense

Quality Criterions

- concrete clarification of desired output
- a detailed business plan
- identification of knowledge as a object of transfer



Case study & Good practice

ICT IN SME - CLOUD



ZERA Agency

Cloud establishment

- A large number of projects with external organisations and experts (VŠB, MENDELu, ZVT etc.)
- •Main communication channel email

Difficulities to sort documents

Repeated sending

Lost in email... ©



CLOUD

One issue is: to create, the other is: to use@

mycloud.com

<u>Files</u> Shared ▼	mai	iekubankova@gmail.com ▼
ZERA 🗘	Size	★ Modified
1) INTECO	-	2/16/17 10:52 AM
2) Popularizace a propagace kompostu (MZE)	-	1/17/17 8:32 AM
3) OP PIK - Kompostování	-	3/17/17 9:11 AM
4) Inovace PRV	-	11/25/16 9:19 AM
5) Platforma OP PIK příprava projektu	-	1/4/17 1:55 PM
ARCHIV - připravené a nerealizované projekty	-	1/15/17 1:12 PM
IOR	-	2/24/17 3:31 PM
MARKETING a webové stránky	-	2/7/17 10:37 AM
Metodiky MZE konec listopadu	-	2/7/17 10:49 PM
Nabídka pro O2	-	3/14/17 10:53 AM
ZAKÁZKY ZÁPISY a výkazy práce	-	2/13/17 9:45 AM





Ladies and Gentlemen
Thank you for your attention







Děkuji vám za pozornost

