



Technology Transfer in the Czech Republic

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Technology Centre ASCR

- **National Information Centre for European Research**
 - EU Framework Programmes, COST, EUREKA
 - Stimulation of Czech participation in the EU FPs
 - Monitoring and evaluation of Czech participation in the EU FPs for Czech government
 - Coordination of the National Information Network for Research (NINET)
- **Technology transfer**
 - Enterprise Europe Network – transnational TT
 - Direct cooperation with Czech industry, particularly SMEs - product and technology innovation
 - Promotion of R&D results on the market
 - IPR consultancy



Technology Centre ASCR

- **Strategic studies**
 - Analytical and prognostic studies for the state administration (R&D, innovation, EU Structural Funds)
 - Coordination of national foresight projects
 - Development of the Foresight Programme in the Czech Republic
 - Identification of national research priorities
 - Intensive cooperation with UNIDO (international courses on foresight)
- **Czech Liaison Office for R&D (CZELO)**
 - Based in Brussels – an interface between Czech and EU research
- **Business Incubation (BIC Member)**
 - Innovation Centre and Business Incubator TIC-ČKD Prague
 - Focused on small technology-intensive businesses
 - Areas: alternative energy, environmental technology, materials
 - Incubator in Prague with a total floor space 4000 sqm

Enterprise Europe Network in CR

- Consortium of institutions of long-time experience in the EIC and IRC networks as well as in consulting for the EU RTD Framework Programmes established
- **Project Objective:**
 - to establish a network of integrated services for innovative business, covering the whole territory of the Czech Republic by involving experienced regional partners
 - to ensure providing qualified complex services and information through interlinking all components of the network - „no wrong door“ concept
 - to join the pan-European business and innovation support network
- **Strategy:**
 - to establish a system ensuring effective communication and cooperation among all institutions participating in the network
 - to improve quality of the network continuously, to ensure its international standard, access to the business sector, to keep increasing expertise of the project team
- **The Czech Network is a part of the pan-European network consisting of:**
 - 70 consortia in 40 countries;
 - 500 host organizations;
 - 4000 experts;
 - with potential for transferring experience and information
 - with direct connection to the European Commission and other European institutions

Network Methodology

Network Activities are divided in 3 modules:

Module A:

services for increasing competitiveness of enterprises:

information on the market, financing, legislation, cooperation, international connections and services; feedback: entrepreneur - EC (EIC)

Module B:

innovation, technology and knowledge transfer:

information on innovation activities, research results, new technologies, relevant laws, support programmes; arranging contacts, partnerships and cooperation; information on intellectual property rights (IRC)

Module C:

support to SMEs ~ participation in the EU RTD Framework Programmes:

information on Calls; assistance in identifying topics and partner search; project consultancy

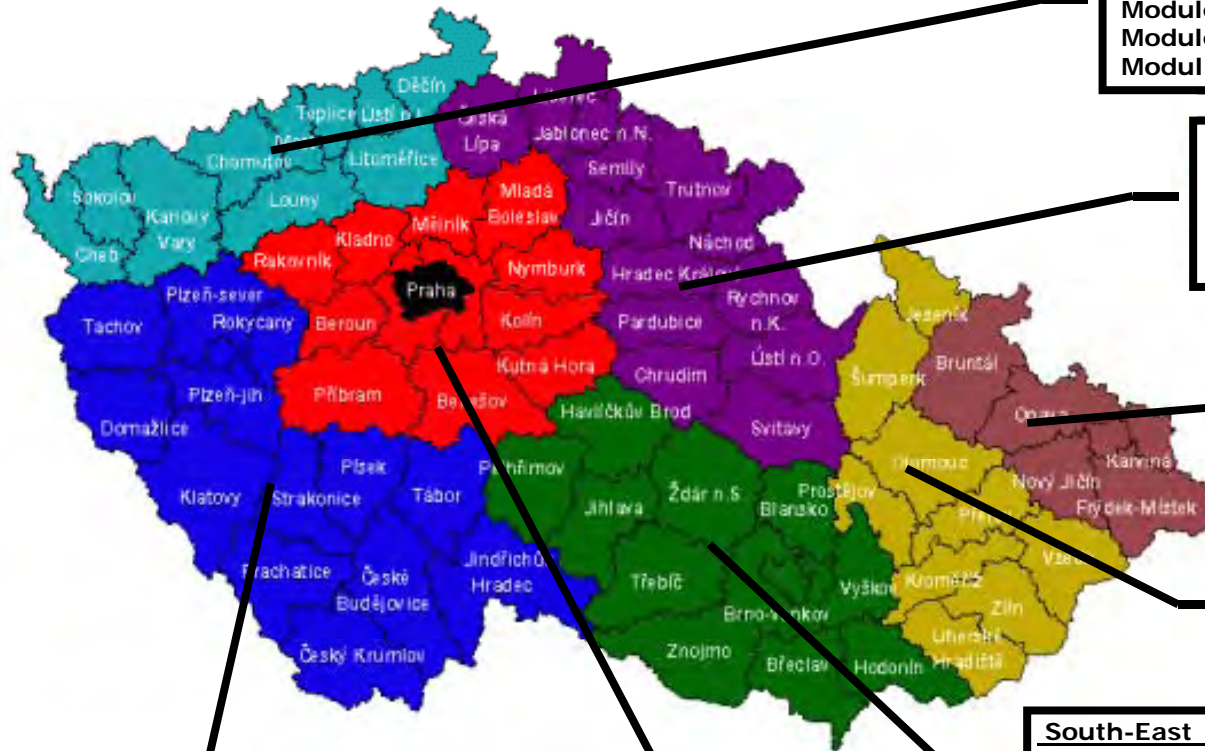


Czech EEN Consortium



- **Consortium of 11 Project Partners**
 - Technology Centre AS CR – Coordinator
 - Centre for Regional Development CR
 - BIC Pilsen
 - South-Moravian Innovation Centre Brno
 - BIC Ostrava
 - Regional Development Agency of the Usti Region
 - Agency for Regional Development Liberec
 - Regional Chamber of Commerce Brno
 - Chamber of Commerce of the Moravia-Silesia Region
 - Regional Development Agency of the Pardubice Region
 - Research Institute of Textile Machines Liberec
- **Associated Project Partners**
 - CzechInvest
 - Chamber of Commerce CR
 - Association of Regional Development Agencies CR
 - Association of Innovative Entrepreneurship CR

Czech Republic EEN regional coverage



North-West

Module A: RRA UK
Module B: TC AV ČR
Modul C: TC AV ČR

North-East

Module A: ARR Liberec/RRA PK
Module B: VUTS Liberec
Module C: VUTS Liberec

Moravia-Silesia

Module A: KHK MSK
Module B: BIC Ostrava
Module C: BIC Ostrava/KHK MSK

Central Moravia

Module A: RHK Brno
Module B: JIC Brno/BIC Ostrava
Module C: BIC Ostrava/JIC Brno

South-East

Module A: RHK Brno/CRR
Module B: JIC Brno/TC AV ČR
Module C: JIC Brno/TC AV ČR

South-West

Module A: BIC Pilsen
Module B: BIC Pilsen
Module C: BIC Pilsen

Prague and Central Bohemia

Module A: CRR Praha
Module B: TC AV ČR
Module C: TC AV ČR

Our TT Activities (TT model)

- **Access to EEN Network Database: offers and requests of innovative technologies**
- **Creation of technology offer or request**
- **Partner's search for applicants interested in technology implementation or technology selling**
- **Assessment of client's technology ability to offer or purchase technology or innovative solution**
- **Co-organization of brokerage events and company missions**
- **Information about events in clients' business field - brokerages etc.**
- **Technology watch, information about R&D results**
- **Assistance during negotiation, co-organizing meeting(s) between partners**
- **IPR consulting (licensing, consortia agreement „design“)**
- the only paid service
- **Organization of conferences, seminars, round-tables, workshops, technology presentations ...**
- **Publication activities: leaflets, IPR brochures, promotional articles in technology-focused magazines ...**



Sectors - TT Unit TC ASCR

- **Engineering and New Materials**
- **Transport Technologies**
- **Biotechnology and Medicine**
- **Environment**
- **Information Technology**
- **Food Industry**
- **Nanotechnology**
- **Energy and Renewable Energy Sources**

Obstacles in TT between academia and SME's

Typical pitfalls in cooperation among academia and industry:

- Different expectations (amount of work, funding, interpretation and usage of results)
- Different expectations of „both worlds“ during funding of projects/innovations or their evaluations
- Different approach to mutual cooperation (e.g. timeframe)
- Different communication language
- Ownership of results (IPR) and their publishing
- Scientists prefer publishing their outcomes to patents

Our TT experience from CR

- „Top“ ASCR institutes (UOCHB, Macromolecular ...) have own licensing units with long-term (foreign) relationships
- Rest of ASCR institutes lack behind
- ASCR research often focused on fundamental or theoretical research
- Although Universities established TT Offices, there are no significant results yet
- Universities focusing more on direct cooperation with SME's (relationships from past)
- Patent funding support established, but not for Prague-based institutions (= 60% of Czech research)
- Opportunity: Uni & SME's collaboration through Structural funds EU and national funding schemes
- Opportunity: FP7 and CIP programmes

Our TT experience from CR

- Missing marketing research and sales experience (essential for successful market applications)
- Reasonable evaluation of own inventions („level“ of competition, market value of invention)
- Missing support of „proof-of-concept“
- Missing funding support (seed capital, venture capital)
- Training of TT people

Low patent activity in CR

Národní přihlášky vynálezů / National invention applications

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Přihlášky celkem / Applications total	4 797	4 938	4 733	4 277	3 579	1 252	830	836	908	854
Domácí přihlašovatelé / Domestic applicants	598	556	578	528	627	619	586	641	716	712
Zahraniční přihlašovatelé / Foreign applicants	4 199	4 382	4 155	3 749	2 952	633	244	195	192	142
z toho mezinárodní přihlášky PCT, které vstoupily do národní fáze / thereof PCT applications which entered into the national phase	3 251	3 405	3 370	3 200	2 745	524	145	109	95	88

Source: „Annual Report 2008“ of the Czech Patent Office

Low patent activity in CR

Udělené patenty národní cestou a evropské patenty (EP)
validované v České republice
Patent granted in the national way and validated European patents (EP)
in the Czech Republic

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Udělené patenty národní cestou / Granted patents in the national way	1 482	1 611	1 719	1 805	1 802	1 514	1 551	1 324	1 203	1 280
z toho domácím přihlašovatelům / thereof domestic applicants	228	272	241	241	259	293	349	264	227	239
z toho zahraničním přihlašovatelům / thereof foreign applicants	1 254	1 339	1 478	1 564	1 543	1 221	1 202	1 060	976	1 041
Udělené EP validované pro ČR / EP patents validated in the CZ					3	102	753	1 993	2 741	3 513
Celkem / Total	1 482	1 611	1 719	1 805	1 805	1 616	2 304	3 317	3 944	4 793

Source: „Annual Report 2008“ of the Czech Patent Office

Low patent activity in CR

Přihlášky užitečných vzorů Utility model applications

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Přihlášky celkem / Applications total	1 384	1 288	1 166	1 121	1 117	1 213	1 185	1 082	1 125	1 183
Domácí přihlašovatelé / Domestic applicants	1 309	1 205	1 091	1 053	1 066	1 138	1 105	1 000	1 053	1 107
Zahraniční přihlašovatelé / Foreign applicants	75	83	75	68	51	75	80	82	72	76

Zapsané užité vzory Registered utility models

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Zapsané užité vzory celkem / Registered utility models total	1 368	1 156	1 162	1 043	1 022	1 104	1 085	1 021	1 059	1 046
Domácím přihlašovatelům / Domestic applicants	1 279	1 089	1 099	967	962	1 042	1 019	938	990	980
Zahraničním přihlašovatelům / Foreign applicants	89	67	63	76	59	62	66	83	69	66

Source: „Annual Report 2008“ of the Czech Patent Office

Comparison with Austria

Applications for inventions at the Austrian Patent Office

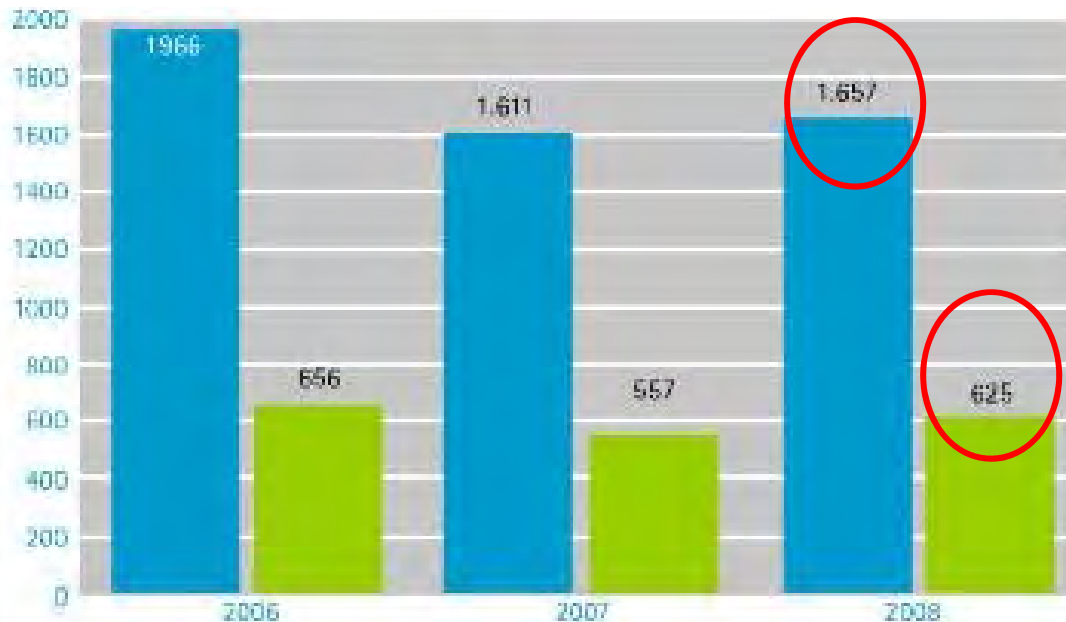


In 2008 there were 3,488 inventions applied for at the Austrian Patent Office. 2,627 of these applications related to patents, and in 861 cases utility models were applied for. The number of submitted technical innovations remained on a constantly high level.

Source: „Annual Report 2008“ of the Austrian Patent Office
<http://www.patentamt.at/geschaeftsbericht2008/frames.html>

Comparison with Austria

Granting of invention rights for Austrians



Together 2 282, i.e.
9,5x more than CR

2007: approx. 6,834
Mld. € investment
into research => 10x
more patents than CR

Granting of invention rights for Austrians

At the Austrian Patent Office: 1.657
At the European Patent Office: 625

Source: „Annual Report 2008“ of the Austrian Patent Office
<http://www.patentamt.at/geschaeftsbericht2008/frames.html>

Conclusions (or hopes ... ?)

- Excellent research => TT results
- Increasing number of patents
=> increasing number of TT (hopefully ... 😊)
- Excellence in research
=> increasing number of TT (hopefully ... 😊)
- Intensive international collaboration
=> increasing number of TT (hopefully ... 😊)
- Exploitation of Structural funds, FP7 and CIP programmes
between 2009-2013 => increasing number of TT (sure ... 😊)



Thank you for your attention.



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