



Characteristics and dynamics of innovation in Northern Transylvania







Summary

- The Innovation System of Northern Transylvania
- The Innovation demand
- The Innovation supply
- The diffusion on innovation
- Conclusions, recommendations and future initiatives





Priority sectors:

- High education & research
- Agriculture
- Tourism
- ITC
- Food
- Furniture
- Machinery



- •14% of SMEs from Romania around 75.000
- •Low innovation profile: 400 innovative SMEs
- •0.7% of human resource involved in R&D 4.200 employees
- •R&D 0,45% of GDP (far from EU 2020 target) and below the national average
- •Low productivity of SMEs manufacturing sectors, low added value
- Most SMES: textiles, food products and beverages, furniture, machinery and equipment, ITC lately

Sector - 2008	% regional GDP	% employees
Agriculture	8,6	30,6
Industry & construction	37,5	30,6
Services	53,9	38,8

SMEs needs – competitiveness and innovation stoppers

- RIS Project (Regional Innovation Strategy for the North-West Region of Romania): 2005-2008 – over 250 companies interviewed
- Main findings related to business support:
 - Training needs 74%
 - Investment needs 56%
 - Lack of intelligent infrastructures (research and technological centers) 50%
 - Management problems 46%
 - Lack of physical infrastructure and logistics 37%
 - Organisational problems 37%
 - Business environment: particular markets, legislation, financial context (laws, taxes) 33%
 - Market dynamics (need to quickly develop the products) 30%



Business Support Suppliers:

- Consultancy companies
- Chambers of Commerce and Industry
- Industrial and logistic Parks
- Scientific and Technology Parks
- Business Incubators
- Financial Institutions
- Technology Transfer Centers
- Technology Information Centers
- Business Association, Clusters*



Business Support structures in Northern Transylvania

- Consultancy companies have boomed lately:
 - mostly attracting structural funds (project writing and assistance for implementation)
 - increasing need for quality certification (ISO 9001, 14001)
 - Very few specialised on medium-long term corporate strategy design
 - Very few offering assistance on technical matters, related to industry
- Chambers of Commerce and Industry —one in each county doing a good job, but not sufficient enough for creating innovation



Business Support structures in Northern Transylvania

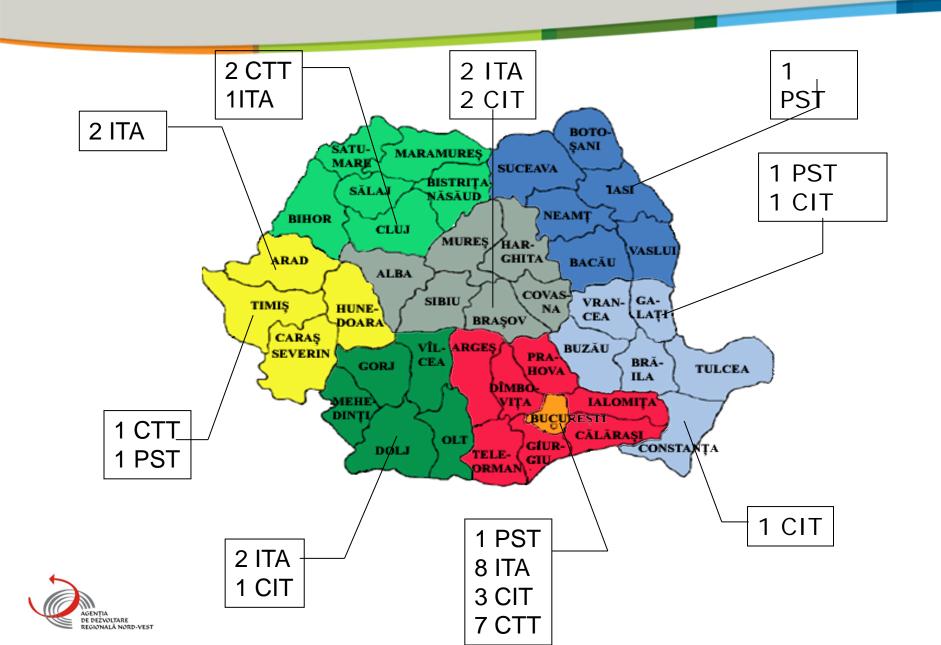
- Industrial parks:
 - Around 90 in Romania (46 recognized by the Ministry as such), mostly public, lately many private parks – 4 in the region
 - 30 logistical parks in Romania none in NW
 - Usually specialised: ITC, machines and equipment
 - Almost 50% of their cash flow comes from distributing energy and other utilities to the host companies – more to be done for delivering added value services to host companies
- Scientific and Technological Parks: (since 2003)
 - 6 in Romania none in NW
 - Specialisation: ITC mostly, 1 in nanotechnology
 - Very good job, but few



Business Support structures in Northern Transylvania

- Technology Transfer Centers: 11 in Romania, 2 in Cluj: one specialised in machines and equipment industry, ICT control, one in energy efficiency, biomass, environment protection, medical equipment
- Technological Information Centers: 9 in Romania
- Technological and Business Incubators: 14 in Romania
- RENITT National Network for Innovation and Technology Transfer – 53 members in 2010, under national accreditation (by the National Authority for Scientific Research)





Industrial Parks in the NW Region

- TETAROM I
 - public, developed by Cluj County Council in 2002, a 7 mil euro investment; 32 ha and growing; 95% occupied by companies in ITC, electric devices; has attracted private investments of 30 mil euro and continuing;
 - first Business Incubator build by Technical University from Cluj-Napoca in 2010, 100% occupied
 - Project for further development under Integrated Urban Development Plan (IUDP) to be financed by ROP – structural funds – almost 10 mil euro: 2 buildings (for SMEs and Business Incubator), utilities and road
- TETAROM II public, developed by Cluj County Council in 2006; 12 ha, 100% occupied, Emerson Company



Industrial Parks in the NW Region

- TETAROM III
 - public, developed by Cluj County Council in 2008 145 ha out of which 92 is Nokia Village;
- TETAROM IV logistic park project development, under Integrated Urban Development Plan, to be financed by ROP – structural funds – 10 mil euro
- JIBOU INDUSTRIAL PARK 22 ha
- SATU MARE INDUSTRIAL PARK 70 ha
- EUROBUSSINESS PARK ORADEA 120 ha
- BORS INDUSTRIAL PARK 25 ha
- VETIS INDUSTRIAL PARK 6 ha
- ARC INDUSTRIAL PARK DEJ 40 ha
- Nervia Park private, opened in 2010, 24 ha
- Logistic Parks (storage and transport) private:
 - Transilvania Park 16 ha since 1999
 - Coratim Floresti Park 1,5 ha





- SEE project, NW RDA partner
- Survey on a sample of 26 companies and 17 other organizations (universities, associations, chambers of commerce, public autorities, etc.) on the diffusion of innovation in the region
- Main findings:
- The associations, both public but mostly private, are considered important actors in promoting the innovation demand.
- there are very few surveys on the demand innovation and that the subjects do not use statistical data to improve their knowledge in innovation



- 3. Most of the companies and organisation pay attention to the customers' needs; in that sense they use different customer evaluation methods, direct and online.
- 4. The key customers are rarely identified among the total clients
- 5. the customer is being involved only to a small extent in innovation processes
- 6. The degree in which suppliers are involved in common innovation projects in much bigger than the degree of the clients' involvement, this being due also to the contractual relations between the parts
- 7. the academic system (universities and research centres) plays the major role in boosting innovation, the most important service being the one on spreading information about cooperation projects, finding partners and disseminating good practices and incentives in the field
- 8. scarce existence of such regional innovation action plans



- 9. The lack of business support infrastructure, the migration of researchers and lack of own financial resources to get involved in cooperative projects.
- 10. 16% participated to national and European progammes which foster innovation
- The private companies and associations are the main generator of innovation technology
- 12. Creation of spin-off companies and organization of seminars are considered the most effective ways to transfer innovation technology; licenses and patents are also considered important
- 13. No clusters were identified in the North-West Region.
- 14. Most of the companies and organizations finance itself their activity, mostly through bank loans and only a third by public funds
- 15. 61% know about the European Grants
- 16. Half of the respondents use external consultancy services



The most important factors which influence the innovation process are:

- 1. the innovation costs and existence of financing sources
- 2. the quality of the personnel
- 3. the economic environment and market information
- 4. the level of cooperation between partners
- 5. the clients' response to innovative products and services.



Recommendations

- 1) Raising the level of awareness and dissemination of the importance of the innovation and promotion of an innovative culture.
- 2) Need of periodic analysis of the capacity of supply and of the demand of innovation, in order to formulate the right measures and policies in this field
- 3) Development of new skills for SME staff and trainings in innovation related subjects; innovation management
- 4) Development of (regional) innovation strategies together with a proper dissemination
- 5) Wider dissemination of national and European financing opportunities for innovation
- 6) Stimulate the integration of the SME in associations and future clusters and networks, along with raising their involvement in national and European projects
- 7) Development of business infrastructure structures and its services
- 8) Development and encouragement of innovation transfer and support units, together with raising quality of the services provided; wide dissemination of such structures
- 9) Enhanced promotion of the activities and services of the Regional Development Agency and of the Business Innovation Support Network BISNet Transylvania in the North-West Region.



Plans in developing new BSS in the NW Region

- 2 projects prepared by the Municipality, to be financed by IUDP under ROP structural funds: 2011-2013:
 - Excellence Centre for Creative Industries in Cluj-Napoca, Metropolitan
 Area a 10 mil euro investment
 - TEAM Center Technology, Evolution, Entrepreneurship, Microenterprise, Metropolitan Area fields: ITC and electronic; 15 ha + the construction of the centre almost 10 mil euro
- TETAROM V Cluj County Council initiative, solar field, cca 100 ha
- Competitiveness Poles to be developed by the North-West RDA, IRCETT, 5 state universities from Cluj-Napoca and companies from the fields of: innovative materials, energy, health and agriculture 30 mil euro each, to be financed under structural funds, Competitiveness Operational Programme in 2012-2014
- Competitiveness Pole in Thermal Energy in Oradea, under preparation, same financing targeted
- One Scientific and Technology Park in Cluj-Napoca umbrella for the mentioned projects above







Marius CRISTEA

North-West Regional Development Agency <u>marius.cristea@nord-vest.ro</u>

www.north-west.ro 0040-455777037

