

Development of knowledge mapping and brokering in Croatian PROs and HEIs

Hrvoje Zorc, Ph. D. Ruđer Bošković Institute, Zagreb, Croatia



Technology Transfer Conference, IJS, Ljubljana, 2011

Contents of presentation:

- 1. Croatian innovation system
- 2. Preferable schematic of the innovation system
- 3. Matching the results of research with industrial needs
- 4. Setup of the national knowledge database
- 5. Conclusions

1. Croatian innovation system

According the OECD methodology (1992) it consists of

- HEIs and PROs (7 universities, 24 public institutes)
- R&D resources in industry
- Other educational institutions
- Government institutions for innovation support
 - (Croatian Science Foundation, BICRO, HIT, Croatian Accreditation Agency, Croatian Metrology Institute, State Intellectual Property Office, State Office for Metrology)

2. Preferable schematic of the innovation system

BUSINESS SECTOR

- Industrial R&D
- Technology transfer, translational research
- Market development
- Development of human resources

GOVERNMENT SECTOR

- Financing basic research and education
- Stipulating innovations
- Developing PPP
- Stipulating intersectoral collaboration
- Developing venture capital system
- Developing "interface" institutions
- Developing specialized institutions

SINERGY

HEIs and PROs

Educational function

IP protection

Basic and applied research

Scientific entrepreneurship

FINANCIAL SYSTEM

- Entrepreneural capital (seed-, venture, ...)
- Assurance schemes
- Conditional loans
- Fiscal incentives

Technology Transfer Conference, IJS, Ljubljana, 2011

3. Matching the results of research with industrial needs

In Croatia:

- Matching the scientific results with industrial needs
 - Still a big gap between the basic research and the industrial needs due the oldfashioned scientific system
 - Absence of "interface" institutions
 - Absence of public tools for more efficient linkage between science and industry
- The public and private brokering system is underdeveloped
- The National innovation strategy under development
- Investment into S&T is far bellow the Lisbon targets

Actions of the Government:

- Setup of the Science and Innovation Investment Fund (SIIF)
 - Goal: To contribute to the increase of Croatian economy competitiveness,
 by developing a more efficient knowledge transfer system from R&D
 sector to the business sector.
 - SIIF is implemented by the Ministry of Science, Education and Sports of Croatia within the two EU-funded projects – SIIF grant scheme and Technical Asistance to SIIF
 - In the SIIF grant scheme two projects are being implemented:

"Technology mapping in University of Zagreb." "Development of innovation system at Ruđer Bošković Institute and University of Rijeka"

- Strengthening of actions via Croatian Science Foundation
 - Projects for further support of basic research
- Foundation of Croatian Metrology Institute
- Foundation of TT offices at PROs and HEIs 5 since 2006

4. Setup of the national knowledge database

- The result of the projects "Technology mapping in University of Zagreb" and "Development of innovation system at Ruđer Bošković Institute and University of Rijeka" will be the knowledge database,
- In the next phase it will encompass other PROs and HEIs, thus growing up to the National knowledge database,
- The database will be open to public via the web portal,
- It is expected that it will accelerate collaboration between science and industry and between the scientists themselves,
- The Natonal scientific portal will stay a public brokering system.

We expect that the tuning of the existing scientific expertise and the industrial expectations will open the space for private scientific brokers! To be further developed!

5. Conclusions

- The current scientific system in Croatia is being transformed from the oldfashioned socialistic system into a modern innovation system,
- The national knowledge database is being established as a public brokering system,
- Interaction between scientific and industrial sector is improving via the established TT offices
- Government incentives for innovation activities are not yet fully efficient,
- There is a lot of space for improvement to reach Lisbon targets,
- Regional collaboration in development of systems will be to benefit of all.

Thank you for your attention!