Comparative Analysis of Innovation System in the Western Balkan Region

Zoran Aralica
The Institute of Economics, Zagreb
Steering Platform on Research for WBC, Ohrid
zaralica@eizg.hr

Focus in this presentation

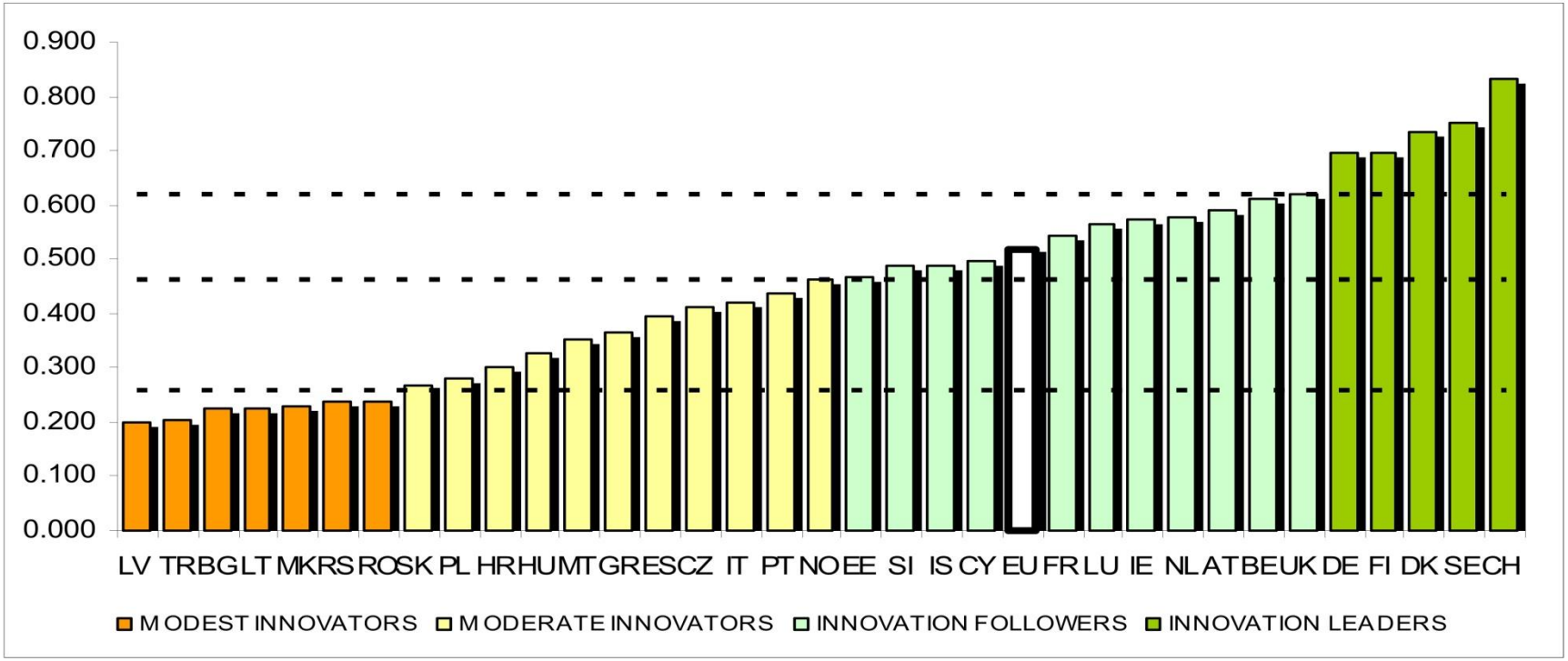
- **Macroeconomic perspective induces innovation performance in the region**
- **Critical infrastructure for knowledge development**
- **SME development in the financial crisis**
- **Perspective of the regional cooperation**

Macroeconomic vulnerability of the WB Countries (Astrov, 2010)

	Population (thousands)	Per capita GDP in 2008 (Euro)	Unemploy-ment rate in 2008 (%)	Remittance from abroad in 2006 (% of GDP)
Croatia	4,435	10,700	8.4	2.9
Macedonia	2,047	3,200	33.8	4.3
Albania	3,177	2,800	13.1	14.9
Bosnia and Herzegovina	3,842	3,300	23.4	17.6
Montenegro	629	4,900	17.2	13.6
Serbia	7,350	4,600	13.6	
Kosovo	2,200	1,726**	42.2***	n.a.

Globalization of the WB region!

FIGURE 8: EUROPEAN COUNTRIES' INNOVATION PERFORMANCE

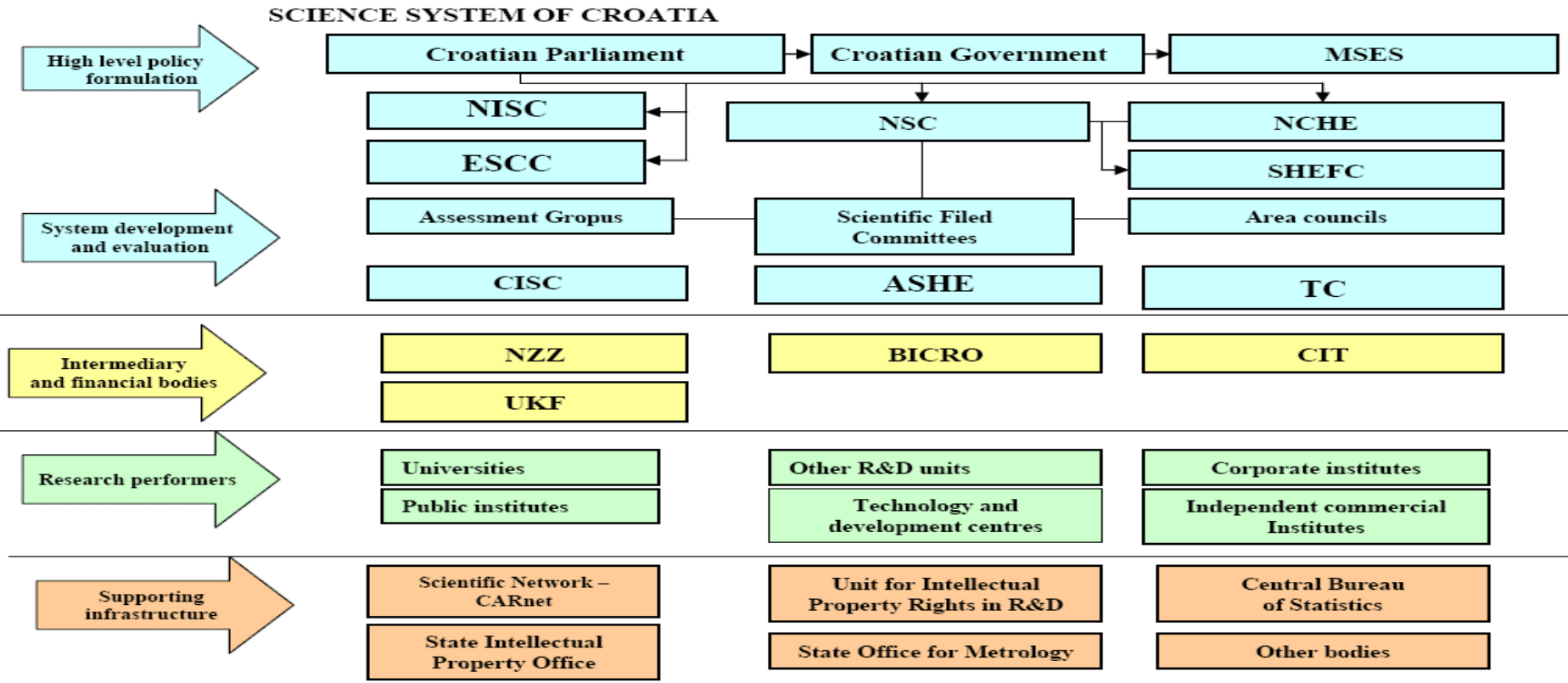


Note: Average performance is measured using a composite indicator building on data for 24 indicators going from a lowest possible performance of 0 to a maximum possible performance of 1. Average performance in 2010 reflects performance in 2008/2009 due to a lag in data availability.

Global Determinants shape the Socioeconomic environment in the WB Region

- **WB countries** are accessing **the EU;**
- **The Financial sector liberalization** and **real sector liberalization** influence national economies in the WB region;
- **The Financial Crisis** and **Sovereign Debt Crisis in Europe** are new moments which affect the socio-economic framework in the region (from the year 2008 onwards);
- **Political turmoil** in the **Mediterranean Countries**

The National Innovation System in Croatia (ERAWATCH, 2009)



Legend:
MSES – Ministry of Science, Education and Sports
NISC- National Information Society Council
ESCC - Education, Science and Culture Committee
NSC - National Scientific Council
NCHE - National Council for Higher Education
SHEFC - Science and Higher Education Funding Council

CISC- Croatian Innovation System Council
ASHE - Agency for Science and Higher Education
TC – Tehnological Council of MSES
CIT – Croatian Institute of Technology
UKF – Unity through Knowledge Fund
BICRO – Business Innovation Centre of Croata
NZZ - National Foundation for Science, Higher Education and Technological Development

WB countries diagnosis of the National Innovation System (NIS)!

Highly centralized system, (without specialized agencies for innovation except Croatia and Albania);

- Weak process of developing and implementing policies programmes (Civil Experts, Researches, Stakeholder and Politicians);
- Evaluation and monitoring of the system in initial phase;

National innovation systems as networks (Wikipedia)

*Freeman (1991) defines a **networks of innovators as knowledge flows both*** within and between enterprises and organizations, irrespective of national borders, but also part of the national institutional arrangements underlying the NIS.

- *Lundvall (1992) defines **interactive learning as elements and relationships,*** which interact in the production diffusion and use of new and economically useful knowledge. . .either located within or rooted inside the borders of a nation state.
- Nelson (1993) considers ***innovation systems to***

Science and technology Infrastructure, WB region review (I)

Country	Science and Technological Infrastructure
Albania	Several business incubator initiatives in the last twenty years – sustainable practice problem; Key Institutions Technology/Innovation Centre (TIC), Business Relay and Innovation centre (BRIC) within Albanian Agency for Business and Investements
Bosnia and Herzegovina	Technological park (Zenica and Tuzla) Innovation Centar (Banja Luka)
Croatia	Five centres for technology transfer centers; technology transfer offices (TTO) at universities the Ruđer Bošković Institute in Zagreb (Ruđer Innovation). there are technology parks in Zagreb and Varaždin and one university Science and technology park, Biocentar Zagreb (Town of Zagreb, University of Zagreb, BICRO)

Science Technological Infrastructure - WB region review (II)

Kosovo	Center for Innovation and Technology Transfer at the Ministry of Education, Science, and Technology.
Macedonia	Four technologies transfer centers (three in Skopje and one in Bitola); Two innovative centers (COSMO Innovative Centre and European Information & Innovation Centre Macedonia); Regional innovation centre in Stip, two business start-up centers, four incubators and the MASIT – ICT Chamber.
Montenegro	Initial phase of development- Technology Innovation Centre, R&D Service Centre at the University of Montenegro
Serbia	three Innovations Centres, twenty Research and Development Centres, thirty nine Research and Production Centres, two Technological Parks and three Technological Incubators

Fostering Innovation Capacity within the SMEs Sector in the Region (I)

Country	SME Development
Albania	Mapping Absorptive Capacity – Business development strategy emphasis on innovation policy; ALBINVEST; Albanian Business Information Center
Bosnia and Herzegovina	Completing, institutional and legal requirments in the field of SMEs. The Government of FBIH economic development strategy (The small and medium-sized entrepreneurship) In Republic of Srpska (RS) key strategic goals for innovative SME development are stated in the 10 year SME development strategy.
Croatia	Concrete programmes implemented by BICRO and HIT, RAZUM, TEST, IRCRO, CONCRO, TEHCRO and PoC.

Fostering Innovation Capacity (II)

Kosovo	Ad hoc policy intervention and pilot projects
Macedonia	Innovative voucher, Government co-financing for up to 50% of research and development project costs
Montenegro	Increasing number of instruments: Development fund; Diaspora fund, founded by Government and SMEDA. Development of credit line to support entrepreneurship in rural areas, for the increase of the energy efficiency in SMEs,
Serbia	Increase efficiency in field of policy implementation in areas such as support to innovative companies, start-ups, provision of business services and information dissemination through online services (Švarc, citing OECD, 2009)

Innovation activities in the Financial Crisis

- The financial crisis increasing the refinancing costs and reducing credit supply which was more than ever needed and required within the SMEs sector in Croatia (Kundid, Ercegovac, 2010);
- On the macro level risk about downsizing of the planned public R&D investments in the near future which may consequently hamper efficient functioning of the national research system.
- Evaluation and monitoring of the innovation activates and implementation of new instruments are required; in otherwise institutional backwards in Science and Technology Sector may appear

Deficiencies of the National Innovation System in the Region

The capacity of national innovation system has been recognised in small extent in the national economies;

- Micro level initiative appear in small extent
- Scientific research infrastructure is a key question;
- Strong emphasis on commercialization activities within SMEs sector downsized cooperation between science and research sector and other sectors (Health, Energy, Transport);

Innovation policy magnitude!

Influence on Innovation activities of firms and other agents (behaviour) and intention

- **Enhance the innovation possibilities and improving firm‘s access to knowledge**
- **Improving use of resources**

Crucial stimulate agglomeration of the resources!!!

Focus on micro level incentive structures

Building absorptive capacity among various participators

- Systematic policy learning
- Focus on mobility,
- Inventive capacity

Overview of the Regional Initiatives related to Innovation Economics

- **Regional Competitiveness Initiatives:**

  Two areas:

  1) Enhancing Innovation Absorption Capacity for Firms

  2) Reducing Skill Gaps for Firms

- **Regional Strategy Research and Development for Innovation for WB Countries (RSRDfIfWBC)**

  Develop a comprehensive regional research strategy with emphasis on identifying existing research capacities; focus on research community;

- **WBC INCO NET project:**

  1) Support the bi-regional dialogue on S&T;

  2) Identify RTD priorities in the region;

  3) Enhance the participation in European projects;

The Regional Initiatives (II) – Different Approaches

Western Balkan 2020 (objectives):

Development of Knowledge Society in the Region

- Identify Priority Areas for Social and Economic Development

Institutional Strengthering and Good Governance

Competitive Western Balkan Economies

Integrated and Crossection Infrastructural Development

Building Knowledge Based Societies

Innovation policy learning from Norway in the Western Balkans (WBinNO):

Assist policy makers in the Western Balkan countries to develop and implement innovation policies by way of

Opportunities for developing regional cooperation related to innovation economy?

Sectoral strategies in the Region (e.g. Energy, Transport, Agrofood);

- **Regional Cooperation needs to be a mechanism for promotion of excellence** (e.g. RSRDfIWBC);
- **Direct cooperation among the nations is a prerequisite** for developing opportunities of cooperation in the WB region;
- Accepting and implementing key objectives in **EU 2020**