

The Analysis of Croatian Smart Specialisation Strategy 2016-2020

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www.interreg-danube.eu/Smart-Factory-Hub

- Smart Specialisation Strategy (S3) as a new policy process
- Institutional determinants in the field of productivity vs. S3 policy objectives
- Croatian S3 – SWOT analysis;
- Moving forward;

New stage in Innovation policy development in Croatia from 2013.

- National Strategy for the Croatian innovation development 2013-2020,
- Industrial strategy of the Republic of Croatia 2014-2020
- Act on Investment promotion and Development of Investment Climate 2012;
- Science and Technology Policy;
- **Croatian Smart Specialisation Strategy 2016-2020**

Determinants of Innovation policy in Southeastern European Countries

- South European type of capitalism - the competitiveness characterizes **low level of quality based competition, little non-price coordination**, as well as strong emphasis on the importance of small firms (cf. Amable, 2003: 104-106)
- Characteristics of the innovation process:
 - low R&D demand
 - weak business R&D investments
 - low level of inventive activities
 - brain drain
 - limited ICT use (cf. UNESCO, 2010);
- **Innovation processes in these countries are consequence of the macro economic framework;**

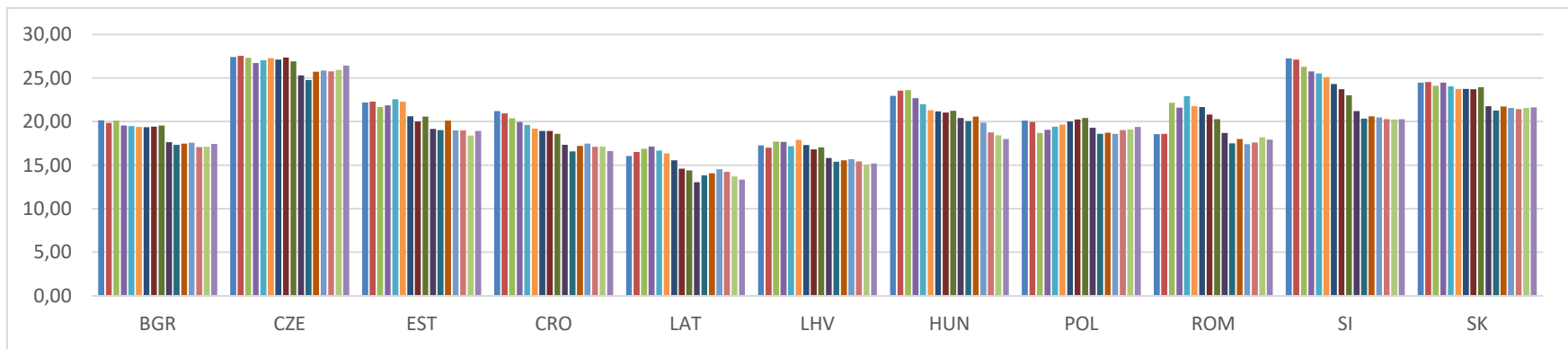
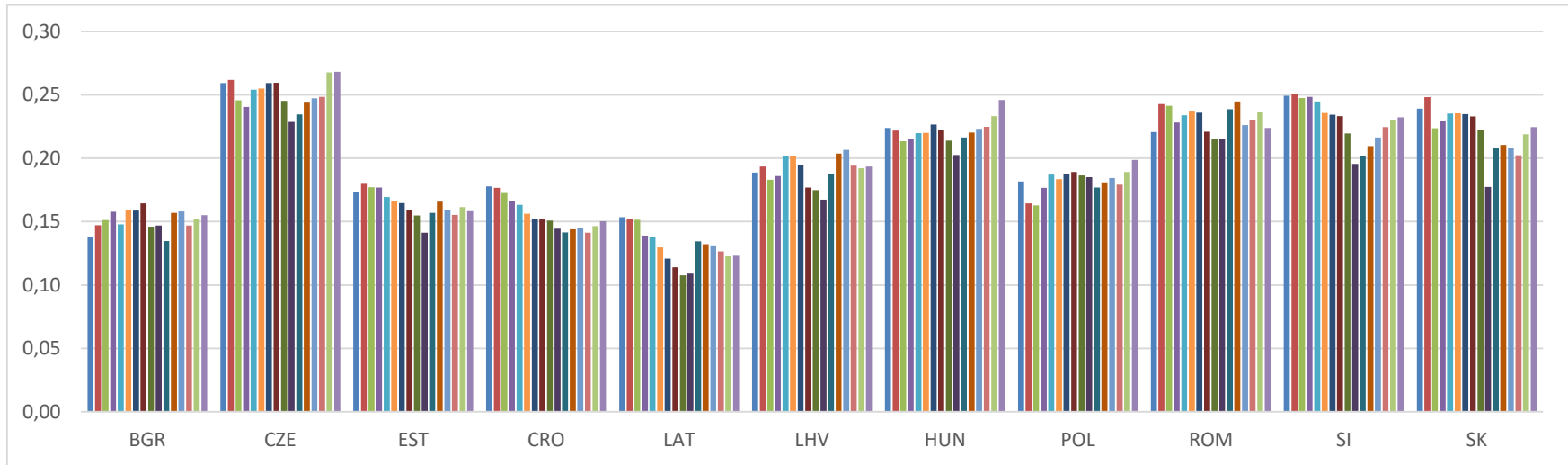
Croatia's transition towards the EU

- WB countries' specific characteristics comparing CEE countries
 - 1) War conflicts during the nineties affected almost all WB countries;
 - 2) Lower national savings and investments in these countries implied different type of foreign investments, more oriented towards gross fixed capital formation (Uvalić, Estrin, 2013);
 - 3) Privatization process (in majority) had a focus on firms' asset control and its pre-sale (if it was in the interest of new owners);
 - 4) Lower level of inclination towards industrial policy, industrial policy justified only if it is geared towards fixing situations in which markets fail to efficiently allocate resources;
- WB countries lagged behind the CEE countries in terms of approaching the EU membership during the 90-s and in the next decade where CEE countries became the EU members

Croatian S3 policy objective

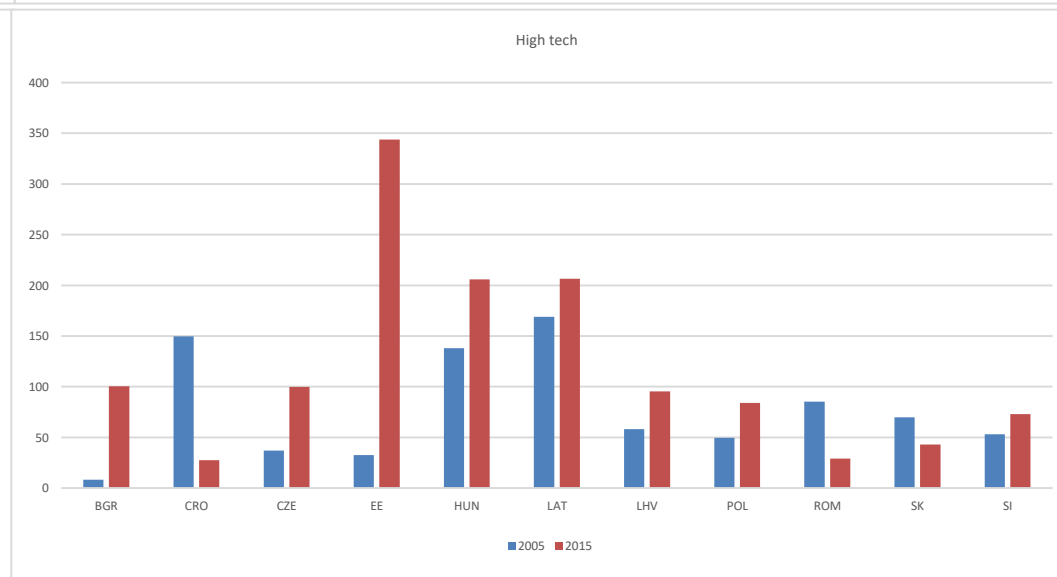
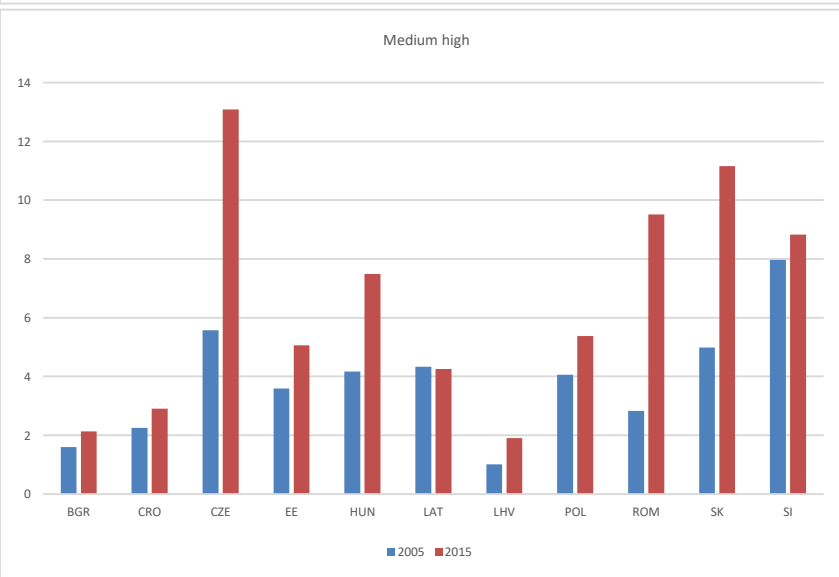
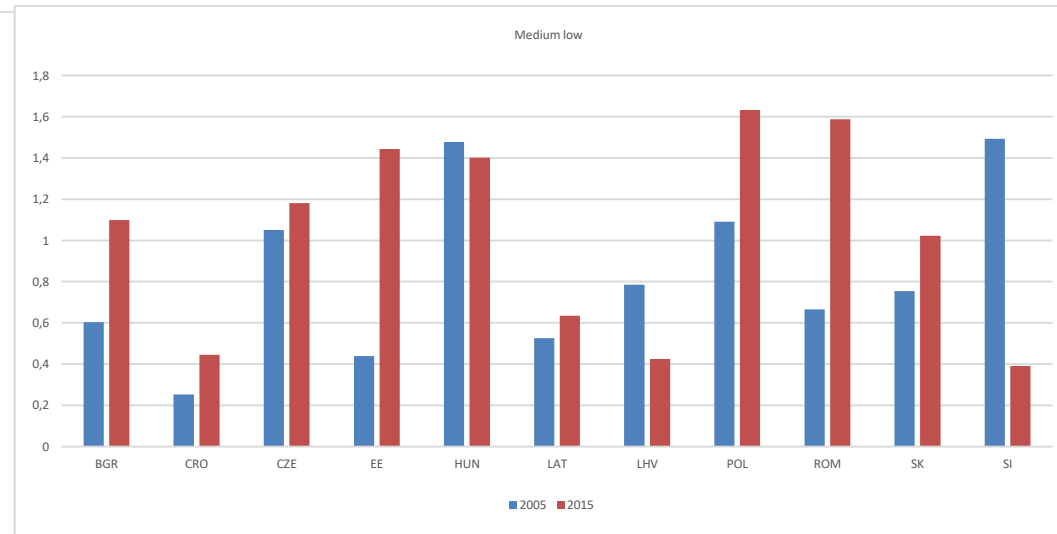
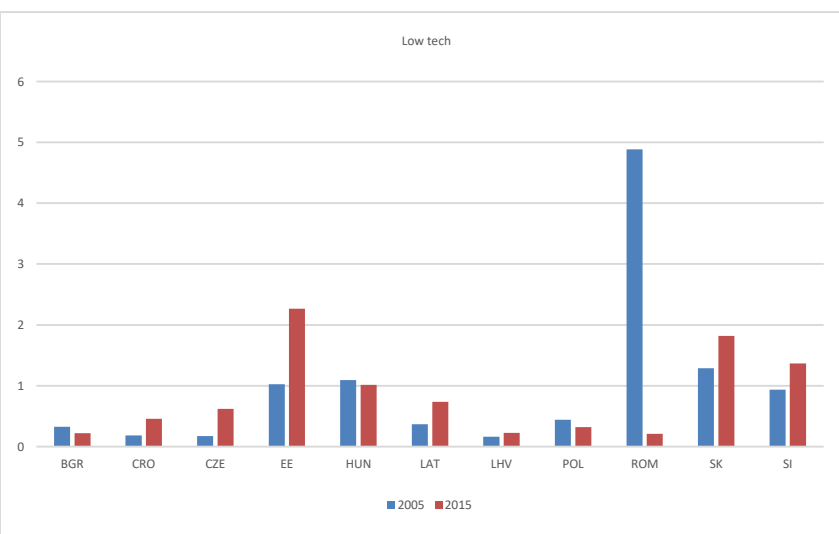
- Strengthening the capacities of the science-research sector to conduct top class research meeting the needs of the economy – **12 programmes**
- Overcoming fragmentation of the innovation value chain and the gap between the science-research and the business sector – **4 programmes**
- Modernization and diversification of the Croatian economy through business R&D&I investments – **6 programmes**
- Upgrade in the global value chain and promoting internationalization of the Croatian economy – **1 programme**
- Smart skills development – upgrading qualifications of the existing and new work force for smart specialization – **2 programme**

Share of manufacturing in value added and employment 2000-2015 CESEE countries (Stojčić, Aralica, 2018)



Export Unit Values and Technological Intensity of Sectors, 2005–2015

(Stojčić, Aralica, 2018)



R&D priority area per country, mean rating (from 1 to 7) are deindustrialized

Area	Croatia	Albania	Serbia	FYRM	Kosovo	B&H	Montenegro	Weighted Average
ICT	5.63	5.70	5.08	5.80	6.13	6.44	5.92	5.81
Energy	5.25	4.70	4.92	5.70	5.13	6.67	5.75	5.45
Healthcare	5.22	4.50	4.27	4.50	5.43	5.33	5.33	4.94
Biosciences and Biotechnology	5.05	3.40	4.58	4.00	4.38	5.33	5.75	4.64
Environment	5.00	4.60	4.75	4.10	4.75	6.11	6.00	5.04
Food	5.00	4.70	5.25	4.70	5.38	6.00	5.58	5.23
Digital services	4.97	4.70	4.33	5.40	5.13	5.11	5.25	4.98
Electronics, sensors, and photonics	4.70	2.60	4.25	3.80	4.38	3.78	4.18	3.96
Advanced materials	4.49	3.22	4.08	3.20	4.00	4.00	4.45	3.92
Advanced manufacturing	4.44	2.90	3.92	3.90	4.00	3.78	4.64	3.94
Financial services	3.88	3.30	3.91	3.50	4.00	3.44	4.09	3.73
Defence	3.83	2.00	3.92	2.00	2.88	2.44	3.64	2.96
Space	2.78	2.00	2.08	1.55	1.38	2.44	2.00	2.03

Škrinjarić Recher (2018) Productivity of enterprises and the intensity of market forces: How does the market function in Croatia?

- Labour productivity (LP) was stable in pre-crisis period before plummeting in 2009 after which is constantly lower by about 20 percent compared to pre-crisis figures
- Large enterprises and/or exporters recorded highest growth of LP, TFP and also capital productivity (CP), with the latter measure displaying the greatest volatility
- Croatian economy is characterized by less intense market dynamism that cannot adequately contribute to increased innovation and faster growth, both of the corporate sector and the overall economy
- Market dynamism (measured by market entry and exit) is the highest for the enterprises focused solely on domestic production and sales
TFP change in whole economy was very turbulent with negative trend in crisis period (2009- 2015), but this returned to pre-crisis growth rate in 2016

Croatian S3 – Strengths

- Improvement in the knowledge base in terms of science/innovation/research management among practitioners/policy bodies/researchers in the last ten years;
- Introduction of ambitious objectives in RIS;
- Improvement in the overall S3 policy process is evident in the area of S3 program monitoring;
- Strengthening of science – industry linkage within thematic priority areas; This is indeed the largest experiment in the context of innovation policy in Croatia, where more than a hundred people have been participating
- Introduction of new topics in the policy agenda (e.g. smart skills)

Croatian S3 – Weaknesses

- Socio-economic processes that led Croatia to the position of lagging behind other new member states were neglected in the creation of S3; there is no emphasis on the productivity growth of the economy
- The overall S3 process is largely based on a promised increase in R&D/innovation investments. That is parallel with weak evaluation mechanisms within S3; In this way, the opportunity to affect the overall productivity of the economy is reduced. The exception are S3 policy programmes related to the increase of GERD (policy objective one within the Croatian S3 strategy).
- Lack of regional approach within S3
- Civil sector engagement within S3 process is limited;

Croatian S3 – Opportunities

- Internationalisation of S3 activities among all groups of stakeholders; Cooperation with DG REGIO, JRC – Seville, among stakeholders and representatives of policy bodies; Participation in various international business consortia (e.g. COSME programme); Strengthening various forms of science-industry linkages for representatives from Science and Research sectors (e.g. SmartEIZ project)
- **The reduction of the internal barrier and silo mentality among different stakeholders in the innovation policy system; e.g. evaluation has different meaning for different stakeholders: (A) Program efficiency and the achievement of policy objectives - science sector; (B) Financial and technology expertise about the project for firms' representatives; (C) Evaluation of program impact for policy bodies**
- Better functioning of S3 governance;
- **Strengthening of Innovation policy demand instruments**

Croatian S3 – Threats

- Disappearance of the industry, along with migration, leads to reducing the opportunity for any transition. Digitalisation must be oriented towards eliminating bottlenecks in increasing the productivity of the entire economy
- Unfortunately, there is no clear distinction between what is and what isn't S3 strategy. Many national programs are trying to become a part of S3 strategy.
- There is no clear link between the S3 programs and their impact on structural challenges in the Republic of Croatia; without a clear contribution to the national economy, the relevance of S3 programs will definitely be reduced in the foreseeable future

Croatian S3 – Moving Forward

Issues which should be improved within S3 governance in Croatia

- Introduction of a regional approach, more bottom-up approaches and initiatives, and introduction of various policy instruments on a regional level (searching for regional leaders);
- Better alignment with EC initiatives in the field of Smart Specialisation Strategy
- **Avoiding the policy practice which could be coined as 'eternal capacity building'**
- Looking for opportunities for various forms of transformations on a regional level;
- **Strengthening the links between S3 policy programs and productivity growth in the Republic of Croatia**