

Innovation policies for entrepreneurship

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- Innovation, EU agenda and Croatia
- National Innovation System & Innovation Governance
- Emphasis on Entrepreneurship
- Financing Innovation & Entrepreneurship
- Science & Business: the “Gap”
- 5-point Agenda for Entrepreneurship



Innovation, EU agenda and Croatia (1)

Smart Specialisation and Key Enabling Technologies

- Innovation = the most powerful multiplier for economic growth
- EU 2020 agenda with emphasis on innovation and entrepreneurship, leading to competitiveness
- 4Cs:
 - ❖ **Choices**: clear focus, specialisation along value chains
 - ❖ **Competitive** advantage: close the gap between R&D and business
 - ❖ **Critical** mass: for fast acceleration and spill off effects to other areas
 - ❖ **Collaborative** leadership: policy, business, R&D, education, labour market, etc.



Innovation, EU agenda and Croatia (2)

EU priorities 2014-2010 in R&D and innovation

- Enhance **R&D infrastructure** (R&I), promote excellence in centres of competences across the EU
- Promote **business R&D investment**, technology transfer, social innovation, clusters and open innovation in SMEs through smart specialisation
- Support technological and applied research, pilot lines, early product validation actions, and advanced manufacturing capabilities in **Key Enabling Technologies** and diffusion of common rules purpose technologies

ERDF: funds with priority for KETs and innovation



Innovation, EU agenda and Croatia (3)

Challenges for Croatia

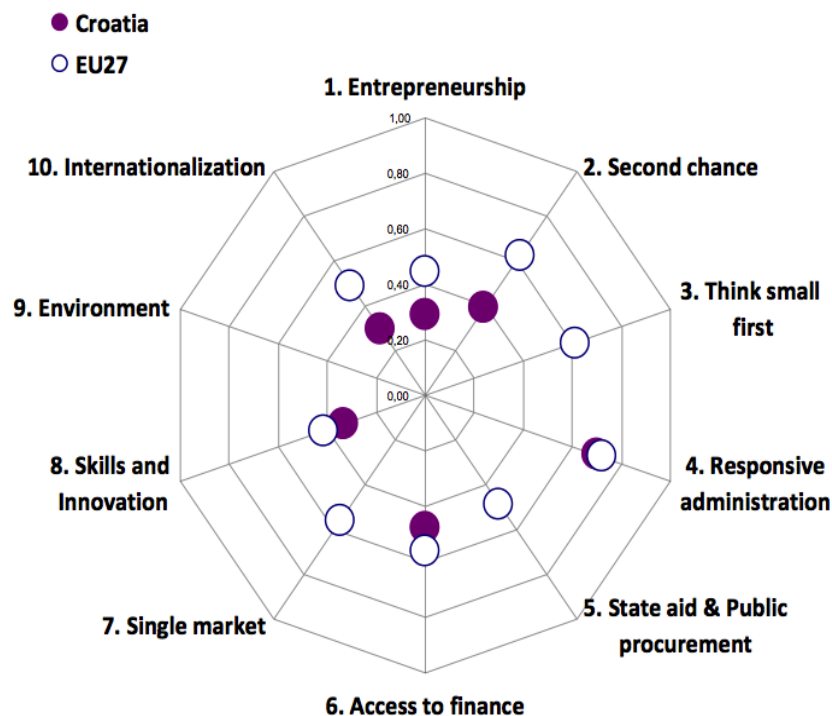
- Croatia = a **catching up country** with about 1% of GDP invested in R&D
- If R&D investments **increase to 3.0%** = Croatian GDP would grow by 6.0 percent in 2025 and by 8.2 percent in 2040(*)
- **Only 5.6%** of the Croatia's graduates are in the field of science and technology
- The contribution of the **manufacturing** to the GDP is about **20%**: not many EU countries enjoy such a ratio.

(*) Paulo Correa, WB, 2009 based on WorldScan simulations



Innovation, EU agenda and Croatia (4)

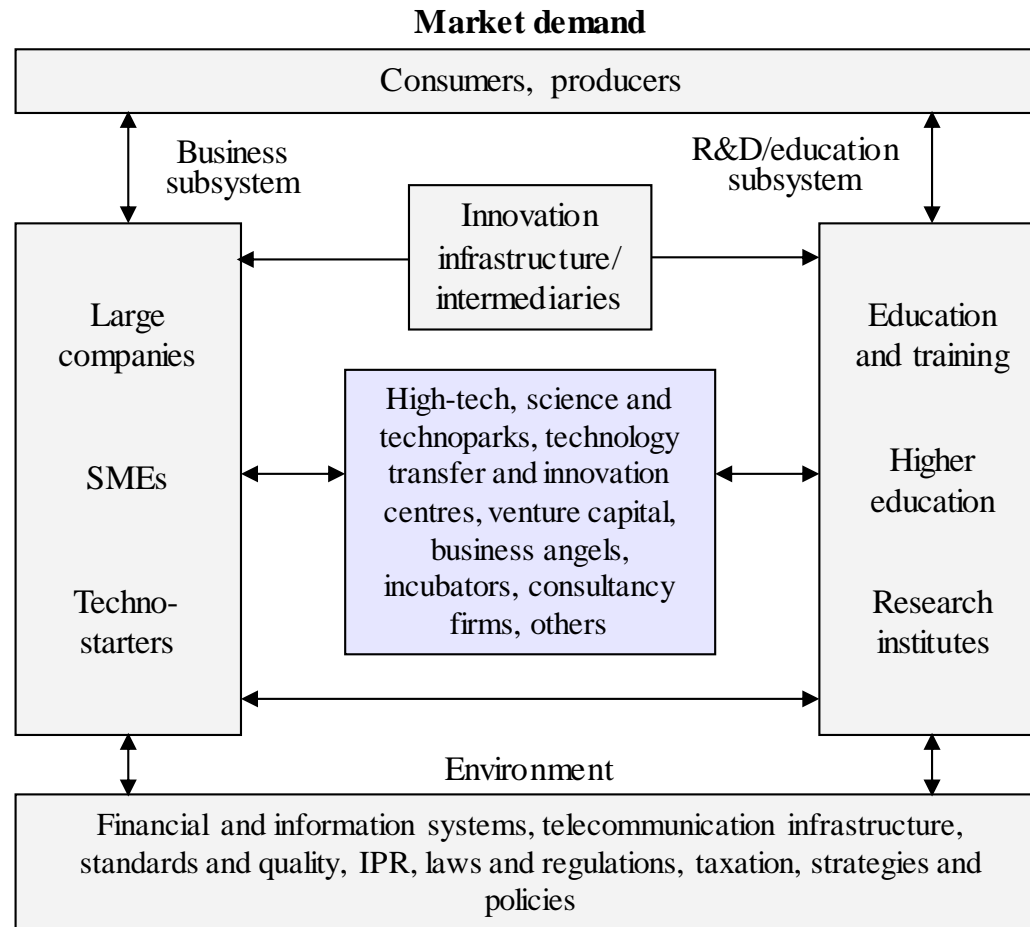
Challenges for Croatia



- Expenditure of the entire SME sector in research and development (R&D) is extremely low (0.1% of total).
- While skills for innovation are catching up, entrepreneurship is lagging behind (EC, SME Performance Review, 2011)



The National Innovation System (NIS)



Source: Adapted from: C. Freeman (1987), National systems of innovation: the case of Japan, in: Technology policy and Economic Performance, London, Printer Publishers



National Innovation System and Innovation Governance

Critical factors

- Interactions between sub-systems and especially between science and business is at core of NIS
- Addressing the weak links in the NIS
- Horizontal and vertical coordination on policy and implementation
- Innovation Governance at high level (e.g. National Council)
- From individual policy instruments to set of instruments (policy mix)



Emphasis on entrepreneurship (1)

It all begins and ends with entrepreneurship

- Broad **promotion of entrepreneurship** in the society: national heroes (see innovators award Poland)
- Entrepreneurship classes at **secondary school**
- Entrepreneurship centres at **universities**
- **Techno starters**, incubators, clusters around universities (see IMEC Belgium)
- Young **entrepreneurs programmes** with PPP construction (see YES Delft)



Emphasis on entrepreneurship (2)

It all begins and ends with entrepreneurship

- R&D and innovation projects in industry **while still at school and university**
- **Sabbaticals for innovative students** to develop their creative projects (see Thiel Foundation, US)
- Invest in R&D that **industry is ready to pay for** (see innovation funds across EU)
- Support SMEs with the **first technologist**, R&D staff, etc. (see teaching scheme UK)



Financing innovation

Experiences

Common challenge: scarce financial resources for innovation

Common experience: results from financing innovation come later; hence political credit may not fall in the mandate of investments made

Shared challenges in designing financial instruments: (a) support key missing links in NIS; create economy of scale effect between the different instruments

Shared understanding: Difficulties with obtaining finance are particularly prevalent for *entrepreneurs, spin-offs, start-ups and SMEs*



Financing entrepreneurship for innovation*

Investments coach entrepreneurship from the beginning till the end

Awareness	Entrepreneurship for innovation	New companies (high-tech)	Start-up (small SMEs)	Growing innovative SMEs	Total schemes reviewed
29 (11%)	55 (21%)	41 (15%)	65(24%)	76 (29%)	266 (100%)

* Ecorys survey of financial schemes for innovation across the EU

Science&business = crucial for innovation

The “gap”

The world of business

- Seeks profit and market shares
- R&D for private use
- Short term orientation
- Information is for commercialisation
- Interpret information versus opportunities
- Communicate via prices/brands

The world of science

- Seeks academic eminence
- R&D for moving frontiers
- Long term orientation
- Information is for disclosure
- Interpret information in the context of advancing science
- Communicate via publications



5-point agenda for entrepreneurship

Croatia National Entrepreneurship Agenda

1. More innovative SMEs
2. Commercialisation of science through entrepreneurship
3. Spin-offs from research institutes & universities
4. Entrepreneurship education as early as from secondary schools
5. Entrepreneurship for innovation as part of the national culture



THANK YOU!

Hvala i uspjeh!

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