



# Update on preparations for attracting EU funds for Research

Directorate for Science and  
Technology

*12 July 2013*

# *Overview of Croatian Science Sector*



## *State-of-the-art*

- excellent scientists and smaller groups (ca. 40% more money from FP7 than our contribution!)
- system grew in no. of employees by 26% in 5 years (2006/07: 9'457 employees (FTE) with 4'656.7 D. Sc. → 2011/12: 12'000.5 employees with 6'100.7 D. Sc. but also 4'085 non faculty staff)
- only 0.75% of GDP goes to R&D sector (55% from public funds) – 2022 goal 1,4% (Economic programme 2013)
- large no. (2'000) of. small projects (<2.5 researchers and < 50'000 HRK per project) and <1 scientific publication per researcher and year; small impact (6 citations per publication, H-index of 132)
- almost 81.5% of the MSES budget is allocated for salaries, with an annual growth rate for salaries in science and HE of more than 5%!

- MSES currently the most efficient ministry in Croatia in terms of percentage of usage of EU funds as well as in terms of total sum of used allocation;
- 6 projects worth > 300 M € are on indicative list for EU structural funds and being prepared + infrastructural roadmap being drafted & several ERIC MoU signed;
- overall goal: increase R&D expenditure form 0.75 to 1.4% of GDP;
- STP II with WB – 24 M € until the end of 2017 → increase level of absorption capacities for EU funds and for TT;
- EU Marie Curie COFUND grant - 7 M € for development of young scientists' careers;
- muliyear performance-based contracts (to be) signed for strudy fees and part of scientific activities of ~ 5.000 FTE scientists @ public universities and public research institutes





- collaboration with StartUp Croatia, CRANE, ZIP, ... on development of innovative entrepreneurial activities;
- science attaché in Brussels → active participation in Horizon 2020 set-up + national AP for absorption capacities;
- activities aimed at associate membership of Croatia in CERN;
- Croatian Qualifications Framework Act adopted: harmonization of Croatian with European qualifications, synergy between education and business sector, recognition of informal and non-formal education, importance of LLL;
- Scientific Centres of Excellence (in Act since 2003): "Scientific organisation, its part or a group of scientists that for the originality and importance of its research activities is at the international forefront in the respective scientific field." → criteria defined (at last!) by National Council for Science, based on international evaluation max. 3-5 to be established during 2013;

- very active international bilateral and multilateral cooperation





- Act on Science and Higher Education (adopted this month!):
  - new National Council for Science, Higher Education and Technological Development
  - procedures for advancement in scientific and teaching ranks, as well as regarding employment
  - additional selection for postdocs through public tender
  - clearer definition of study programmes
  - minister given the authority to introduce official procedures that regulate student standard rights
  - obligation of HE institutions to keep records and databases
  - role and authority of the Board for Ethics in Science and HE strengthened



# *Pre-accession and Structural Funds*





# *Lessons learnt*

## *Instrument for Pre-accession assistance (IPA) – Regional Competitiveness Operational Programme 2007-2013 (~34 M€ for science – 6 years, 6 months)*

- Three Operations:
  - **Grant Scheme** – „*Science & Innovation Investment Fund*”, phase I & II (~ 15 M€)
  - **Major Project** – „*Biosciences Technology Commercialization and Incubation Centre – BioCentre*” (~ 18 M€)
  - **Supply contract** – „*Providing graphics processing units in high performance computing environment*” (~ 90.000€)



# Lessons learnt

## *Instrument for Pre-accession assistance (IPA)*

1. Grant Scheme – „*Science & Innovation Investment Fund*”, **phase I**” – *Enhancement of the science-industry/business collaboration in order to enable them to effectively interact and thus to better serve the needs of industry*

○ 5 contracted projects

- „Marasca sour cherry as an ingredient for functional food” has been selected as the second most successful project financed by the EU in 2010-2012
- „Creation of research related infrastructure for Translational Medicine and Applied Genomics” (RBI) – new technologies and new equipment procured and developed through this projects have contributed to contracting an FP7-REGPOT-2012-2013-1 Project – „Enhancement of the Innovation Potential in SEE through new Molecular Solutions in Research and Development”



# *Lessons learnt*

## *Instrument for Pre-accession assistance (IPA)*

### *2. The only Major Project in the RCOP 2007-2013 „Biosciences Technology Commercialization and Incubation Centre – BioCentre”*

The creation and growth of technology and knowledge-based SMEs by enabling technology infrastructure, access to technology and business development services, particularly for high value added sectors of the economy (i.e. biosciences/biotechnology) – *under construction*



# *Lessons learnt*

## *Instrument for Pre-accession assistance (IPA)*

### *3. Supply contract – „Providing graphics processing units in high performance computing environment”*

The provision of adequate graphics processing units - GPU Compute Nodes have been integrated as a part of existing Croatian National Grid Infrastructure (CRO NGI) and will significantly accelerate research and development and enhance science - industry cooperation through collaborative research project.



# *Structural Funds 2013*

## *Regional Competitiveness Operational Programme*

*(~ 38 M€ for science – 6 months)*

- *Three Operations:*

- *„Strengthening Capacities for R&D&I in Public Sector”  
(14 M €)*
- *„Development of Research Infrastructure on  
University of Rijeka Campus” (~ 18 M€)*
- *„Project Pipeline Preparation for ERDF 2014-2020”  
(6 M€)*



# *Structural Funds 2014-2020*

- Programming started in May 2012
  - Sectoral socio-economic analysis
  - SWAT analysis
- Coordination Committee established in September 2012 by the Government:
  - Deadline for preparation of *Partnership Agreement, Operational Programmes and Economic Programme* set
  - *11 Thematic Working Groups* established  
(in accordance to Europe 2020 Thematic objectives)



# *Structural Funds 2014-2020*

## Thematic objective 1:

### *Strengthening Research, Technological Development and Innovation*

- Based on the sectorial needs analysis, TWGs have proposed **specific objectives** linked to **the investment priorities of thematic objectives** given in the 2014-2020 Cohesion policy draft Regulations



# *Structural Funds 2014-2020*

## Investment priorities proposed by the Ministry of Science, Education and Sports

### **1. *Enhancing R&D&I infrastructure***

- Development/improvement of R&D&I infrastructure of public and private research institutions, including science&technology parks, incubators for new technologies, competence centres etc.
- Support to development of advanced information systems, environment and services for research, education and innovation system in Croatia (e-infrastructure for R&D&I and education)







# *Structural Funds 2014-2020*

## **2. *Supporting excellence and increasing innovation potential in R&D&I Public sector***

- Support strategic R&D&I projects and overall R&D activities in public sector and Centres of Excellence
- Strengthening collaboration between public and private sector by supporting R&D&I activities oriented towards the needs of society and economy



# *Structural Funds 2014-2020*

## ***3. Strengthening innovation potential of Private sector by supporting R&D&I activities and development of new products and services***

- Support strategic R&D&I projects in private sector and HEI/PRO – industry partnership



- Support R&D&I activities in private sector



# *Structural Funds 2014-2020*

## **4. Support the National Innovation System**

- Support Technology transfer institutions (intermediary institutions that serve as link between science and business sector)
- Building capacities in intermediary institutions (TTOs) and support the creation of networks (TTO network, IP network)
- Support promotion of NIS, R&D and Innovation policies
- Ensuring sound research environment by ensuring access to scientific databases, scientific journals/publications, participation of scientific community in international programmes/organisations



# Structural Funds 2014-2020

## 5. *Human resources development*

- Capacity building in R&D&I institutions (post-graduate studies, trainings of researchers, fellowship schemes for PhDs and post docs)
- Supporting mobility and fostering cooperation between public and private R&D&I sector (cooperation activities with Croatian diaspora etc.)



# *Structural Funds 2014-2020*

## Strategies and ex-ante conditionalities

- Education, Science & Technology Strategy 2013-2020
- National Innovation Strategy
- Smart Specialisation Strategy
- Roadmap to ESFRI





# Thank you for your attention!



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