

# WESTERN BALKANS REGIONAL R&D STRATEGY FOR INNOVATION

## NETWORKS OF EXCELLENCE

### *Rationalizing and modernizing research infrastructure*

Western Balkan countries face profound challenges in building a research base, which is a precondition for innovation and competitiveness and a fundamental pillar of national innovation systems. Improving access to modern research facilities and the availability of funds for mission-driven research are critical needs. In addition, countries need to better coordinate their investments in research and optimize the use of resources, which, in turn, requires avoiding fragmentation and improving specialization in order to generate a “critical mass” in the research sector.

**Objective** The objective is to strengthen the quality of research by creating the critical mass of resources (human, physical, and financial) needed for generating world-class research in selected fields. The program will promote the concentration of resources in core research groups capable of achieving international standards of excellence. In addition, the program will encourage research mobility within the region, the training of young scientists, and doctorates and master’s degrees in selected sectors.

This critical mass will be formed through a joint program of activities aimed primarily at integrating the research capacities of the network participants while, at the same time, advancing knowledge on the topic. The Network of Excellence is therefore an instrument for strengthening quality by tackling the fragmentation of European research and for structuring and shaping the way that research is carried out.

**Description** The program will finance selected Joint Programs of Activities. These will consist of a set of integrated activities that describes how partners will work to enhance complementarity and develop mutual specialization, building on strengths and reducing their weaknesses.

The Joint Program of Activities will include:

- ▶ the joint management of the participants’ knowledge portfolio and research activities on the network topic (research proposal);
- ▶ a human resources and physical infrastructure strategy for the network, including the sharing of research facilities, tools, and platforms and a common strategy for modernizing existing equipment and for increasing staff mobility and exchanges; and
- ▶ the proposed training activities for the network (Training Program), consisting of providing PhD and specialization courses for a significant number of students, including their involvement with research.

**Governance** The Supervisory Board of the WISE Facility will be responsible for the design, implementation, monitoring, and evaluation of the Networks of Excellence Program. The Supervisory Board will prepare detailed guidelines and an operational manual, design the call for proposals, and monitor and evaluate the program. The WISE Facility will also supervise the implementation of the program. The WISE Supervisory Board will appoint an Approval Committee, with a maximum of five persons, composed of members of the regional and international

The Joint Statement of the Ministerial Conference — held in Sarajevo 2009 — expressed the interest of the region in developing a joint strategy on research and innovation.

The World Bank and the European Commission in September 2011 signed an agreement to support the development of the strategy. The technical assistance is financed with EUR 1,5 million through a Multi-Beneficiary Instrument of Pre-Accession Assistance (IPA).

Research fields to be prioritized must combine a strong regional research capacity with immediate economic potential, consistent with the notion of **smart specialization**. These attributes seem present in the renewable energy, aquaculture, and marine culture fields; in applications of general purpose technologies (nanotechnology and biotechnology) to specific fields of economic activity (such as agriculture and health); and some fields of biological sciences and chemistry in which the region shows a higher scientific performance.

scientific community and the private sector with expertise in the selected field. Individuals will serve for a limited period of time (for example, two years). The Approval Committee will have final responsibility for project selection. The AC will select the project proposals through a public, transparent, and cost-effective process based on the recommendations of an international peer review panel appointed for the specific call for proposals and following standard international best practices for the selection of scientific research projects, in line with the general and program-specific funding objectives.

**Operational procedures** The operational manual for the Networks of Excellence Program will detail its functions. Procedures will be established based on the experience of the European Research Infrastructure Consortium (ERIC), including its legal format (partnership or consortium), which will provide for the joint establishment and operation of research infrastructures. Operational procedures will elaborate on the following, among other issues: (1) international orientation (including integration with international consortia); (2) collective access to knowledge and physical infrastructure; (3) effective integration of education, training, and research; (4) the scale of the critical mass and excellence of participants; and (5) dynamic turnover of researchers with equal opportunities for participating countries.

In addition, through its selection criteria the program is expected to promote: (1) the level of training provided, including the possibility of a bonus for postgraduate students; (2) the amount of cofinancing from the private sector; and (3) the possible impact of the project in developing the economic potential of a region, especially the effect on “smart specialization.”



#### EXPECTED OUTPUTS

- ▶ 10 publications in high impact factor journals in co-authorship between Western Balkan's authors and foreign collaborators in the supported fields of research
- ▶ 15 new PhDs completed in the supported fields of research
- ▶ 4 region-wide agreements between public research organizations rationalizing the use of research resources through joint planning and execution of research activities in the supported fields
- ▶ 4 joint research agreements signed between researchers from the Western Balkans and the enterprise sector in the supported fields

#### EXPECTED OUTCOMES

- ▶ Increased productivity; EU environmental and safety standards achieved for selected economic activities
- ▶ Increased productivity of selected agricultural activities
- ▶ Increased local provision of energy-efficiency solutions for the Western Balkan region
- ▶ More efficient health care and medical services
- ▶ Improved research base and conditions for research excellence
  - Investing in human capital
  - Improving access to modern research facilities and availability of research funding

#### ESTIMATED COST

- ▶ Marine Research (aquaculture) — € 10 million
- ▶ Agricultural Research — € 15 million
- ▶ Renewable Energy (energy efficiency, etc.) — € 15 million
- ▶ Nanotechnology for Health Care — € 15 million

**Total Cost — € 55 million**



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