The role of Higher Education Institutions

The UNESCOs ‘Framework for priority action for change and development of higher education’ (1998) has stated that Each HEIs should:

- define its mission according to the present and future needs of society and base it on an awareness of the fact that higher education is essential for any country or region to reach the necessary level of sustainable and environmentally sound economic and social development, cultural creativity nourished by better knowledge and understanding of the cultural heritage, higher living standards, and internal and international harmony and peace, based on human rights, democracy, tolerance and mutual respect.

- States, including their governments, parliaments and other decision-makers, should:

  develop innovative schemes of collaboration between institutions of higher education and different sectors of society to ensure that higher education and research programmes effectively contribute to local, regional and national development.
The “regional” contribution of Higher Education Institutions

The aim of consolidation of a regional learning system, which comprises all actors active in innovation interacts to exchange and to develop new know-how which is necessary to be sustained.

On the one hand due to structural tendencies in Italy which have widened the gap in R&D spending in comparison to other OECD countries, and on the other hand to orientate competencies for economic development in a sole direction.

The educational priorities and the territorial conditions

- lifelong learning created by changing skill demands;
- more locally based education as public maintenance support for students decline;
- links between research and teaching;
- more engagement with the end users of the research. (⁴)

- changing national contexts for higher education;
- the characteristics of the region in terms of the regional economic base and regional policy;
- the regional educational system and the peculiarities of each institution.

(*) Source: THE RESPONSE OF HEIs TO REGIONAL NEEDS, 2000, Edited by John Goddard
Partnership between Regions and Universities

to strengthen the research and high educational system

Aims:
• To increase the number of young researchers enhancing the number of grant for research activity;
• To start a concrete technology transfer between HEIs and the local industry;
• To create an excellence educational system;
• To qualify the regional spending towards criteria which respond to specialization and selectivity;
• To define an integrated plan of training

Plan of action:
1. reduction of the brain drain;
2. to attract foreign research personnel and visiting professors;
3. to launch co-financed research programmes of international scientific reputation

Areas of intervention:
✓ Development of human resources;
✓ Re-launch of innovation in mature industrial sectors;
✓ Market approach towards highly innovative sectors;
✓ Protection of intellectual properties.

Case study: PIEDMONT

Strategic importance of R&D for industrial future and regional and national competitiveness
Strategic role of regional policies especially in national context
Ability to coordinate and integrate scientific and technological resources
Reciprocal learning of policies and processes
Promotion of integrated schemes for industrial research
Ability for development of the scientific system

Preface
Coordinated development of regional networks for industrial research and development of specific research clusters of excellence in any region

Exchange of methodologies, instruments and strategies for project evaluation and for the partnership between public and private research centers

Sharing of modalities which enable to compare initiatives of technology transfer and initiatives of economic development

Scenarios of Policies

Regions and Italian Education System

Reform of Title V- Part II of Italian Constitution
Education Sector (to implement within 2009)

Key points:
1) the reform ratifies that scientific and technological research and support to the innovation for the productive fields are matters of concurrent legislation and, therefore, in such matters the Regions have the legislative power

2) the Regions with their intermediate positioning between global and local represent the more suitable organizations to collect the R&D demand, to manage the links between industry, finance and research system and to orient proposals in a national frame
Reform of Title V- Part II of Italian Constitution
Education Sector (to implement within 2009)

**Basics:**
1) territorial framework constitutes fundamental element to delimit the national and regional competences derived from Italian Constitution;
2) programming of the educational offer must find coherent realization in the regional legislation to allow a right allocation of human resources in territorial framework;
3) the regional management of the educational system have to insure a basic level of performance.

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**Examples of Regional Initiatives**

**Lombardy Region**

1. **Technological Vouchers (approx. 1,5 mln euro/p.a.)**
   A financial instrument which is designed to develop entrepreneurial or research projects (via doctoral grants, assistance in patent applications, technological due diligence).

2. **Ingenio (30 mln Euro)**
   The project which aims to provide direct investments for human capital, financing young researchers. It especially intends to increase applied research and sustain a concrete knowledge transfer between educational institutions, research centers and the industry.

3. **Fondo Next (37 mln Euro)**
   It represents the first public/private Venture Capital fund in Italy which is designed to promote innovative technological firms and academic spin offs.
Examples of Regional Initiatives/2

Piedmont Region

1. Master of Talents (3 mln Euro/p.a.)
A project of Foundation CRT which intends to create training programmes of excellence which are especially dedicated to young researchers in order to promote a system of Grants to integrate the educational path also on the European level.

2. Three-year program for research 2007-2009
(total amount invested approx. 46 mln Euro)
Guideline
1. Reduction of the Brain Drain (29,5 mln euro, whose 50% Piedmont Region)
   • To attract Italian researcher personnel which are presently employed abroad
     (4,5 mln euro, whose 50% Piedmont Region)
2. To attract foreign research personnel (8,5 mln euro, whose 50% Piedmont Region)
3. To attract visiting professor (4 mln euro, whose 50% Piedmont Region)

Examples of Regional Initiatives/3

Emilia-Romagna Region

Regional Program for industrial research, innovation and technology transfer
(total amount invested by the region approx. 156 mln Euro, in 2004-2005)

Masterplan:
• Actions which are designed to orientate the regional production system towards a strategic and industrial research;
• To spur entrepreneurial activity in the high-tech sectors;
• To promote the transfer of knowledge and technological competencies;
• Creation of regional networks.