# The competitiveness challenge: the Lisbon strategy

*It was well before the splendour of the 'dotcom' boom, during which both economic growth and prospects were good, that the EU realised that it was being confronted with a major shift resulting from globalisation and the challenges of a new knowledge-driven economy. These changes, affecting every aspect of people's lives, called for a radical transformation of the European economy.*

When the European leaders met in March 2000 at the Lisbon European Council, it was clear the EU had to set a strategic goal and to agree on a challenging programme for building knowledge-based society.

At the same European Council, the EU launched a comprehensive set of targets, to be achieved by implementing a set of integrated structural reforms over the following decade that are geared towards the general objective of becoming 'the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion'.

This became known as the 'Lisbon strategy' or the 'Lisbon agenda' and was a response to the acknowledgement by European leaders of the need for far-reaching reforms in the EU to meet the challenges of ageing, enlargement and globalisation.

Later, at the Barcelona European Council meeting in March 2002, which reviewed progress towards the Lisbon goal, it was agreed that R & D investment in the EU had to be increased with the aim of reaching 3 % of gross domestic product (GDP) by 2010, up from 1.9 % in 2000. European leaders acknowledged the fundamental role of research in creating new knowledge and fostering innovation and competitiveness.

In March 2005, the European Council fully endorsed the European Commission's proposals to revise the strategy and strengthen Member States' commitment to drive it forward. The Lisbon strategy was relaunched with a focus on establishing a strong partnership for jobs and growth between the EU, Member States and all actors including the business sector.

By taking this decision, the EU, at both European and national levels, was to focus on these areas from now on and to take the necessary action to promote knowledge, and create more jobs.

To achieve these objectives, the EU must mobilise all necessary resources at national and Community levels so that their synergies can be put to a more effective use. Therefore, the Lisbon strategy affects all policy areas: research policy is on top of the priority list, as an essential mechanism to promote a knowledge economy, but all other policy areas — the Structural Funds of the EU's regional policy, competition policy, transport, environment, — need to work together for the shared objectives of sustainable growth and more jobs.

Research is central to the Lisbon strategy, and regions are central to European research. Regions have a core role in the development of the European research area (ERA). By enhancing the EU's transition to a knowledge-based economy, the regions can initiate focused efforts, for example in the development of regional innovation strategies, and with local level partnerships and clusters of related enterprises and researchers.

European regions are a driving force of European competitiveness and they are the arena in which innovation takes shape, where public and private actors meet and cooperate, and where a better transfer of R & D results to SMEs can easily be organised.

Policy 'territorialisation', meaning a tailor-made research-policy approach to address specific territorial conditions, can provide an effective answer. Research policy 'territorialisation' addresses two main issues: firstly, increasing regional awareness of national R & I policies and tuning them towards the regions' socio-economic needs and, secondly, directing these policies to building R & I capacity in the regions, enhancing their ability to act as drivers of technology-based economic development.

The objective is to increase awareness of the importance of research for economic development at a regional level, and to support regional efforts to improve R & D performance. For this purpose, EU policies can support investment in research infrastructures, technology transfer and exchange of best practices. It is also important to enhance firms' R & D absorption capacity, particularly that of SMEs, through actions to develop skills and competencies; to encourage the creation and exploitation of a larger pool of high-quality research talent in Europe; to increase regional private and public investment in R & D and innovation, and to encourage R & D partnerships across the EU's different regions.



March 2005 European Council meeting

It is therefore at a regional level that synergy becomes apparent between EU regional policy — that promotes cohesion and regional economic development — and research policy — that, by funding research, acts as a regional development tool.

Regional policy and its instruments play a major role here, by accelerating the pace of transition of the economies of the less prosperous regions of Europe from traditional to knowledge-based. By helping all regions to build up R & I capacity, it contributes to those regions' effective participation in the ERA and to R & I activities in general.

Research policy for its part can, through research funding, reach out to regions, encouraging them to develop regional research strategies, to exchange best practices and to work together so that the regions may benefit from EU funds to support researchers' training and careers through mobility schemes, and to learn about and to develop transnational collaborative projects.

# EU regional policy supports research and innovation

***EU regional policy was created to reduce the gaps in development among European regions and the disparities in terms of well-being among European citizens. European regional policy allocates more than a third of the total EU budget to help lagging regions to catch up, restructure declining industrial regions, diversify the economies of rural areas with declining agriculture and revitalise declining neighbourhoods in the cities. It sets job creation as its primary concern. In a word, it seeks to strengthen the economic, social and territorial 'cohesion' of the Union.***

A part of regional policy funds has been used to promote R & I. The Structural Funds are forecast to invest around EUR 10.5 billion on research, technological development and innovation over the period 2000–06.

This will increase in the future, since the new generation of Structural Funds (2007–13) considers R & I as a priority, according to the re-launched Lisbon strategy.

## REGIONAL POLICY SUPPORTING R & I: 2000–06

Much of Structural Funds support, 97 %, is provided through the European Regional Development Fund (ERDF). Of this investment, 70 % is carried out in Objective 1 regions, defined as having a GDP per head of the less than 75 % of the EU average, whereas the rest is spent in regions undergoing structural and economic change, Objective 2.

Current Structural Fund support for R & I falls into four types of activities:

- research projects based in universities and research institutes receiving around 26 % of total investment;
- R & I infrastructure such as public facilities, but also technology transfer centres and incubators receiving slightly above 25 % of the total amount;
- innovation and technology transfer as well as the setting-up of networks and partnerships between businesses and/or research centres receiving around 37 %;
- training for researchers receives around 3 % of the total investment.

The ERDF also supported some 180 'Innovative actions programmes' between 2002 and 2006, which acted as laboratories for ideas for disadvantaged regions.

## REGIONAL POLICY SUPPORTING R & I: 2007–13

The *Community Strategic Guidelines for Cohesion Policy*, the document setting out the guidelines for spending Structural Funds in the next financial period, aims at improving knowledge and innovation for growth. With regard to increasing and improving investment in research and technological development, the guidelines identify four priorities:

- strengthening cooperation between businesses and, between businesses and public research/higher education institutions, by supporting the creation of regional and transregional clusters of excellence;
- supporting R & I activities in SMEs and enabling SMEs to access research, technological development and innovation services in publicly funded research institutions;
- supporting regional cross-border and transnational initiatives aimed at strengthening research collaboration and capacity building in priority areas of EU research policy;
- strengthening R & D capacity building, including ICT, research infrastructure and human capital in areas having significant growth potential.

The Community Strategic Guidelines also identify four priorities for facilitating innovation and promoting entrepreneurship:

- making the supply of regional research, technological development, innovation and education more efficient and accessible to firms, in particular to SMEs, for example by establishing poles of excellence, or by developing and creating regional clusters around large companies;
- providing business support services to enable enterprises, especially SMEs, to increase their competitiveness and to internationalise, in particular by seizing the opportunities created by the internal market;
- ensuring the full exploitation of European strengths in the area of eco-innovations. Eco-innovations should be promoted, together with the improvement of SMEs' practices, through the introduction of environmental management systems;
- promoting entrepreneurship, facilitating the creation and development of new firms, and promoting spin-out and spin-off companies from research institutions or firms by applying techniques such as awareness-raising or prototyping.

To address the different levels of development between regions, Structural Fund investments in R & I are differentiated. It is worth noting that the old Objectives 1 and 2 have been transformed, and that the new regulation for ERDF declares the following measures to be eligible during 2007–13.

## REGIONS COVERED BY THE 'CONVERGENCE' OBJECTIVE

Research and technological development, innovation and entrepreneurship, including strengthening research and technological development capacities, and their integration into ERA, including infrastructures; aid to R & D, notably in SMEs, and to technology transfer; improvement of links between SMEs, tertiary education, research institutions and research and technology centres; development of business networks; public-private partnerships and clusters; support for the provision of business and technology services to groups of SMEs; and the fostering of entrepreneurship and innovation funding for SMEs through financial engineering instruments.

## THE 'REGIONAL COMPETITIVENESS AND EMPLOYMENT' OBJECTIVE

This objective aims at innovation and the knowledge economy, through support for the creation and strengthening of efficient regional innovation systems capable of reducing the technology gap, and taking into account local needs, by:

- enhancing regional R & D and innovation capacities directly linked to regional economic development objectives by supporting industry or technology-specific competence centres; by promoting industrial R & D, SMEs and technology transfer; by developing technology forecasting and international benchmarking of policies to promote innovation; and by supporting inter-firm collaboration and joint R & D and innovation policies;
- stimulating innovation and entrepreneurship in all sectors of the regional and local economy by supporting SMEs' introduction of new or improved products, processes and services onto the market; by supporting business networks and clusters; by improving SMEs' access to finance; by promoting cooperation networks between enterprises and, appropriate tertiary education and research institutions; by facilitating SMEs' access to business support services, and by supporting the integration of cleaner and innovative technologies in SMEs;
- promoting entrepreneurship in particular by facilitating the economic exploitation of new ideas, and by fostering the creation of new firms by appropriate tertiary edu-

cation and research institutions as well as existing firms;
- creating financial engineering instruments and incubation facilities that are conducive to the research and technological development capacity of SMEs and to encouraging entrepreneurship and new business formation, especially knowledge-intensive SMEs.

### THE 'EUROPEAN TERRITORIAL COOPERATION' OBJECTIVE

Under this objective and within the framework of cross-border, transnational and interregional programmes, the ERDF supports the creation and development of scientific and technological networks, and the enhancement of regional R & D and innovation capacities. Actions include: the establishment of networks between appropriate tertiary education and research institutions and SMEs; links to improve access to scientific knowledge and technology transfer between R & D facilities and international centres of R & D excellence; twinning of technology transfer institutions; and development of joint financial engineering instruments directed at supporting R & D in SMEs.

### EUROPEAN SOCIAL FUND

The ESF can support projects that increase the adaptability of workers, enterprises and entrepreneurs by, for example, promoting lifelong learning and increased investment in human resources by enterprises, especially by SMEs, and the design and dissemination of innovative and more productive forms of work organisation.

In conclusion, between 2007 and 2013 EUR 308 billion will be available to support regional growth agendas and to create more and better jobs. 82 % of the total is allocated to the 'Convergence' regions. Around 15 % of the Structural Funds will concentrate on supporting innovation, sustainable development, better accessibility and training projects in the remaining regions under the 'Regional competitiveness and employment' objective. Another 2.4 % will be available for cross-border, transnational and interregional cooperation under the 'European territorial cooperation' objective.

An important part of these funds will be invested in R & I at regional level.

Growth in the in targeted regions is expected to reach 10 % and more than 2.5 million new jobs will be created as a result.

For more information on the Structural and Cohesion Funds, please visit: http://ec.europa.eu/regional_policy/index_en.htm

## The framework programmes and regional development: the European research area

***The* European framework programme for research and technological development *is the official name for the document (a Council decision) setting the context for all EU activities in the field of science, R & I. FP6, operating between 2002 and 2006, has a budget of EUR 17.5 billion. FP7, covering the period 2007–13, will have a budget of EUR 50.5 billion.***

The framework programme serves two main strategic objectives:
- to strengthen the scientific and technological bases of industry;
- encourage its international competitiveness, while promoting research activities in support of other EU policies.

These two objectives are setting the general scene for choosing priorities and instruments.

FP6's main objective was to contribute to the creation of ERA by improving the integration and coordination of research in Europe and avoiding fragmentation. At the same time, research was targeted at strengthening the competitiveness of the European economy, solving major societal questions and supporting the formulation and implementation of other EU policies.

ERA was conceived to increase the coherence and impact of European research. In its founding document, *Towards a European research area*, the European Commission cited several concrete challenges that it aimed to meet. These included better use of scientific resources and facilities at a European level, more dynamic private investment in R & D, increased human resources and researcher mobility, as well as the provision of conditions more conducive to a research area of 'shared values'. ERA is a European internal market for research, which should avoid duplication and fragmentation and harvest the potential of collaboration, synergies and critical mass.

The framework programme also acknowledges the central role that human resources and communication — i.e. women and science, researcher-mobility issues, communication of science, attracting students to scientific careers — play in invigorating European science and technology in an expanding EU.

FP6 started thinking about the role of regions in ERA: citizens and businesses live and operate within regional environments which strongly influence the way they participate in the knowledge-based society.

FP7, which will be launched in 2007, builds on the achievements of its predecessor towards the creation of ERA and wants to carry it further towards the development of the knowledge economy and society in Europe. Building on the work of the past years, FP7 includes among its novelties a scheme targeting directly all European regions.

FP7 will be organised in four main 'specific programmes' each with a clear objective and title.

### COOPERATION

The Cooperation programme represents the core of FP7 and will support transnational collaborative projects on a broad list of areas:
- Health;
- Food, agriculture and biotechnology;
- Information and communication technologies;
- Nanosciences and nanotechnologies, materials and new production technologies;
- Energy;
- Environment (including climate change);
- Transport (including aeronautics);
- Socio-economic sciences and the humanities;
- Security;
- Space.

The Cooperation programme also covers the work of industry-led European technology platforms, which will bring together companies, research institutions, the financial world and the regulatory authorities to define a common research agenda that should mobilise a critical mass of resources in particular sectors.

### IDEAS

The Ideas programme will stimulate excellence and creativity in basic research through the creation of a new European Research Council. This Council will support 'frontier research' carried out by research teams (not consortia), either individually or in partnership, competing at European level, in all scientific and technological fields, including engineering, socio-economic sciences and the humanities.

### PEOPLE

The aim is to support researcher training and career development through further enhanced Marie Curie scheme, promoting public-private career paths and mobility.

### CAPACITIES

The objective of this action is to support research infrastructures, research for the benefit of SMEs and the research potential of European regions (Regions of Knowledge) as well as to stimulate the realisation of the full research potential (Convergence regions) of the enlarged EU and build an effective and democratic European knowledge society.

# Regions of knowledge

*The actions 'Regions of Knowledge' are a good example of the synergies between European regional and research policies in the context of the Lisbon agenda.*

## THE 'REGIONS OF KNOWLEDGE' PILOT ACTION

Introduced in the 2003 Community budget as a 'pilot-project' by the European Parliament, it aimed at supporting experimental actions at regional level in order to develop 'Regions of Knowledge' (RoK) in the areas of technological development, cooperation between universities, and research at a regional level and to stimulate the integration of regions in Europe.

The action's main aim was to demonstrate the central role of knowledge in driving regional development and how regional actors can effectively participate in formulating their regions' future. Another objective was to increase collaboration on a transnational/transregional basis to enable learning on research policies between European regions and the identification of models and activities that can be implemented in different regions. The indicative budget for this activity, as earmarked in the Community's budget for 2003, was EUR 2.5 million.

The pilot action RoK provided important insights on different aspects of the paths that regions may follow to reach the knowledge-based economy more speedily. It hosted transnational activities based on territorial initiatives involving local authorities, higher education institutions as well as the two sides of industry; social partners; employers and trade unions, chambers of commerce and industrialists federations.

The call (2003/C 182/08) was issued 1 August 2003 with a submission deadline of 17 September 2003. Applicants were invited to submit proposals under four types of activity.

- Technology audits and regional foresight to cover such topics as analysis of regional economy and technology fabric and the identification of future development scenarios founded on knowledge-based society and economy.
- University-driven activities for regional development including activities such as demonstrating how universities can play a significant role in the local and the regional economy.
- Mentoring activities such as networking between technologically advanced and less-favoured regions, and the providing of knowledge- and experience-sharing for technology-based regional development.
- Supporting activities: providing workshops or conferences, raising awareness about the importance of knowledge as a driving factor for local and regional development.

The call received 53 proposals of which 14 were selected for funding. Five are presented in the case-study section: Baltic Sea-KR, BlueBioNet, ERRIN, MentorChem and MetaForesight.

## REGIONS OF KNOWLEDGE 2

Because of the considerable success of the pilot action 'Regions of Knowledge', carried out with funds from the European Parliament in 2003, it was envisaged to continue the activity — Regions of Knowledge 2 (RoK 2) — within FP6.

The RoK pilot action provided support for application of foresight to policy-making, greater involvement of universities in regional development, and for mentoring and exchange of experience in R & I.

'RoK 2' focused on support given to transnational, transregional collaborative projects focusing on R & D policy-making and on research investment at regional level. It also aimed at spreading and further increasing outreach of existing regional R & D initiatives. Moreover, a greater importance was given to exchange of experience among supported projects through an intensive interaction with the Innovating Regions in Europe (IRE) network as a basis for mutual learning.

The 'RoK 2' call, closed on 19 May 2005, asked for projects including activities in at least one of the following areas, or a combination of these:

- analysis of regional R & D performance as well as analysis of bottlenecks and other factors limiting greater R & D investment (e.g. lack of cooperation and trust between research and business communities, low business density and lack of demand for R & D results, absence of political awareness at regional level etc.); analysis of relative success of earlier regional R & D instruments implemented at regional level; integrating R & D investment into local and regional development strategies (e.g. organisation of round tables with the aim of identifying and overcoming the barriers between regional partners);
- application of foresight and, more generally, prospective and intelligence methods for identification of R & D policy priorities at regional level, use of benchmarking, networking and other activities providing evaluation of trends and subsequent guidance to policy-makers in R & D matters;
- mentoring in the field of implementing research and technology policy, exchange of experience and exchange of personnel with the aim to introduce new or improve existing regional level policy instruments for stimulation of R & D investment.

However, the focus had to remain on the development of the regional dimension of R & D policy and the issue of investment in research at regional level.

This action was targeted primarily at regional administrations, as well as universities, public and private bodies involved in R & D at regional level. Financial contribution was up to 100 % of eligible costs during the period of the project, which was up to 24 months.

The call received 118 proposals of which 18 were selected for funding. Five are presented in the case study section: E-Rain, LocoMotive, Movare, Rain and RegStrat.

## FP7 AND REGIONS OF KNOWLEDGE

FP7, under the Capacities programme, will, for the first time, contain elements aimed at supporting research activities tailor-made for Europe's regions. It will include an extended 'RoK' initiative for developing research-driven clusters.

This new scheme will target transnational collaboration of R & D intensive regional clusters.

The actions undertaken in this area will enable European regions to strengthen their capacity for investing in and carrying out research activities, while maximising their potential for a successful involvement of their operators in European research projects.

These activities will be implemented in close relationship with the EU's regional policy and the Competitiveness and innovation programme (CIP).

**For more information on regional actions under FP7, please visit: http://cordis.europa.eu/fp7/capacities.htm#3 for 'Regions of Knowledge' and 'Research potential of Convergence Regions and Outermost Regions'.**

For more information on EU regional policy, please visit:
http://ec.europa.eu/regional_policy/index_en.htm

For more information on EU research policy:
http://ec.europa.eu/research/index_en.cfm

For more information on RoK:
http://cordis.europa.eu/era/regions.htm

For more information on RoK in the FP7:
http://cordis.europa.eu/fp7/faq.htm

For more information on the 'RoK Pilot Action 2003':
http://cordis.europa.eu/era/regions_knowreg1.htm

For more information on 'RoK 2':
http://cordis.europa.eu/era/regions_knowreg2.htm