Lecture 1: What is FP6?

> **At the Lisbon summit in March 2000, EU governments called for a better use of European research efforts through the creation of an internal market for science and technology - a 'European Research Area' (ERA). FP6 is the financial instrument to help make ERA a reality.**

Research activities

FP6 is divided into four main groups of research themes and research activities, which are eligible for funding.

Instruments

These are the different types of projects and actions, which will be used to implement proposals selected for funding under FP6.

Budget

FP6 has a total budget of 17 500 million Euro that is distributed amongst both RTD and demonstration activities, as well as Nuclear (Euratom) activities.

FP6 step by step

Participation in FP6 is open to any entity that has been given legal personality. The rules for participation in RTD activities may vary depending on whether the participant is based in a Member State, an Associated State or a third country and on its legal structure.

Research activities

Thematic Areas

Covers those areas where the EU in the medium term intends to become 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.

- **Life sciences, genomics and biotechnology for health**

To exploit breakthroughs achieved in decoding the genomes of living organisms, for the benefit of public health and to increase the competitiveness of the European biotechnology industry. Also to bring basic knowledge through to the application stage to enable real progress at European level in medicine and improve the quality of life.

- **Information society technologies**

Intended to stimulate the development in Europe of both hardware and software technologies and applications at the heart of the creation of the information society in order to increase the competitiveness of European industry and allow European citizens the possibility of benefiting fully from the development of the knowledge-based society.

- **Nanotechnologies and nano-sciences, knowledge-based multifunctional materials and new production processes and devices**

Intended to help Europe achieve a critical mass of capacities needed to develop and exploit, especially for greater eco-efficiency and reduction of discharges of hazardous substances to the environment, leading-edge technologies for the knowledge-based products, services and manufacturing processes of the years to come.

- **Aeronautics and space**

To strengthen, by integrating its research efforts, the scientific and technological bases of the European aeronautics and space industry and encouraging it to become more competitive at international level; and to help exploit the potential of European research in this sector with a view to improving safety and environmental protection.

- **Food quality and safety**

Intended to help establish the integrated scientific and technological bases needed to develop an environmentally friendly production and distribution chain of safer and varied food. To control food-related risks, relying on biotechnology tools taking into account post-genomic research, as well as to control health risks associated with environmental changes.

- **Sustainable development, global change and ecosystems**

Intended to strengthen the scientific and technological capacities needed for Europe to be able to implement sustainable development, and integrating its environmental, economic and social objectives with particular regard to renewable energy, transport, and sustainable management of Europe's land and marine resources.

- **Citizens and governance in a knowledge-based society**

Intended to mobilise in a coherent effort, in all their wealth and diversity, European research capacities in economic, political, social sciences and humanities necessary to develop an understanding of the emergence of the knowledge-based society and new forms of relationships between its citizens, on the one hand and between its citizens and institutions, on the other.

Cross-cutting research activities

Activities under this heading will complement research within the 7 thematic areas.

- **Research for policy support**

Intended to respond to the scientific and technological needs of the policies of the Community, underpinning the formulation and implementation of Community policies, bearing in mind also the interests of future members of the Community and associated countries. They may include pre-normative research, measurement and testing.

- **New and emerging science and technology (NEST)**

Intended to respond flexibly and rapidly to major unforeseeable developments, emerging scientific and technological problems and opportunities, as well as needs appearing at the frontiers of knowledge, more specifically in multi-thematic and interdisciplinary areas.

- **Specific SME activities**

Carried out in support of European competitiveness and enterprise and innovation policy, these specific activities are intended to help European SMEs in traditional or new areas to boost their technological capacities and develop their ability to operate on a European and international scale.

- **Specific international co-operation activities**

In support of the external relations, including the development policy of the Community, specific measures aimed at encouraging international research cooperation will be undertaken. Apart from these specific measures, third country participation will be possible within the 7 thematic priorities.

- **JRC activities**

In accordance with its mission of providing scientific and technical support for Community policies, the JRC will provide independent, customer-driven support for the formulation and implementation of Community policies, including the monitoring of the implementation of such policies, within the areas of its specific competence.

Strengthening the foundations of ERA

To stimulate the coherent development of research and technology policy in Europe by supporting programme co-ordination and joint actions conducted at national and regional level as well as among European organisations. Activities may be implemented in any scientific and technological area.

- **Co-ordination of research activities**

Develop synergies between existing national activities; enhance the complementarity between Community actions and those of other European scientific co-operation organisations in all fields of science (examples: health, biotechnology, environment, energy)

- **Development of research/innovation policies**

Encourage coherent development of research and innovation policies in Europe by early identification of challenges and areas of common interest and by providing policy makers with knowledge and decision-aiding tools.

Structuring the ERA

The main aim is to fight structural weaknesses of European research. By their nature and means of implementation, the activities carried out within this programme are applicable to all fields of research and technology.

- **Research and innovation**

To stimulate technological innovation, utilisation of research results, transfer of knowledge and technologies and the setting up of technology businesses in the Community and in all its regions, not least in the less developed areas. Innovation is also one of the most important elements throughout this programme.

- **Marie Curie Actions - Human resources and mobility**

To support the development of abundant world-class human resources in all regions of the EU by promoting transnational mobility for training purposes, the development of expertise or the transfer of knowledge, in particular between different sectors. To support the development of excellence and help to make Europe more attractive to third country researchers.

- **Research infrastructures**

To help establish a fabric of research infrastructures of the highest level in Europe and to promote their optimum use on a European scale.

- **Science and society**

To encourage the development of harmonious relations between science and society and the opening-up of innovation in Europe, as well as contributing to scientists' critical thinking and responsiveness to societal concerns, as a result of the establishment of new relations and an informed dialogue between researchers, industrialists, political decision-makers and citizens.

Nuclear energy

Aims at intensifying and deepening the already well established co-operation at European level in the field of nuclear research.

- **Controlled thermonuclear fusion**

Controlled thermonuclear fusion could contribute to long-term energy supply and, therefore, to the requirements of sustainable development for a reliable centralised supply of baseload electricity.

- **Management of radioactive waste**

The exploitation of nuclear fission energy for energy production requires progress to be made in the problem of waste, and more particularly the industrial implementation of technical solutions for the management of long-lived waste.

- **Radiation protection**

Vigilance is still required to ensure a continuation of the EU outstanding safety record. EU enlargement introduces new challenges. Improvement of radiation protection continues to be a priority area. Activities will be carried out in several areas including "risk and emergency management", "radio-ecology", "protection of workplace and environment", *etc.*

- **Other activities in the field of nuclear technologies and safety**

To respond to the scientific and technical needs of the policies of the Community in the fields of health, energy and the environment, to ensure that the European capability is maintained at a high level in relevant fields not covered by priority thematic areas, and to contribute towards the creation of the European Research Area.

Instruments

FP6 will be implemented by the means of six main instruments, each of which have their own set of aims and objectives conditions for participation.

Three "new" instruments

The new instruments introduced for FP6 are driven by the concepts of the European Research Area (ERA) and are also characterised by the structuring and integrating effects that they will have on European research.

- **Integrated Projects**

The Integrated Project (IP) is an instrument to support objective-driven research, where the primary deliverable is new knowledge.

Aims and objectives:	IPs should aim at either: ▪ increasing Europe's competitiveness; ▪ addressing major needs in society. Their main tasks is to deliver knowledge for new products, processes, services, *etc*.
Project components:	Projects must contain: ▪ a research component. They may also: ▪ focus on technological development; ▪ contain demonstration components; ▪ contain a training component.
Research spectrum:	A single project may span over the whole research spectrum (*i.e.*, from basic to applied research).
Number of participants:	Minimum of three partners from three different countries. SMEs are strongly encouraged to participate in IPs.
Duration:	Typically 3 to 5 years, however there is no maximum time limit.
Projects management:	IPs will require overall management and coordination of the consortium.
Expected funding:	> tens of millions € but no minimum threshold
Type of funding:	Grant as a percentage of the total costs of the projects.
Related document:	Provisions for implementing Integrated Projects: European Commission working document - 11.11.02

- ## **Networks of Excellence**

The Network of Excellence (NoE) is an instrument for strengthening excellence by tackling the fragmentation of European research, where the main deliverable is a durable structuring and shaping of the way that research is carried out on the topic of the network.

Aims and objectives:	NoEs are designed to strengthen scientific and technological excellence on a particular research topic. They aim to overcome the fragmentation of European research by: ▪ networking together the critical mass of resources; ▪ networking the expertise needed to provide European leadership. NoE will also have a mandate to spread excellence beyond the boundaries of its partnership.
Project components:	Projects may include a training component.
Number of participants:	Minimum of three partners from three different countries. However, a minimum number participants may be specified in the calls for proposals.
Duration:	Typically up to 5 years with a maximum of 7 years.
Projects management:	An overall management framework will have to be into place.
Expected funding:	> millions € but no minimum threshold
Type of funding:	Funding will be in form of a grant for integration. A fixed amount which will be distributed in annual installments.
Related document:	'Provisions for implementing Networks of Excellence': European Commission working document - 11.11.02

- ## **Article 169** (for the joint implementation of national programmes)

This instrument requires co-operation at the level of national governments. Article 169 refers to the Article in the Treaty that enables the Community to participate in research programmes undertaken jointly by several Member States. It aims at integrating whole national or regional programmes on a particular topic by their joint implementation, *e.g.*, through harmonized work programmes and common, joint or co-ordinated calls for proposals.

Article 169:

In implementing the multiannual framework programme the Community may make provision, in agreement with the Member States concerned, for participation in research and development programmes undertaken by several Member States, including participation in the structures created for the execution of those programmes.

This instrument will be restricted to research initiatives that are beyond the scope of the Integrated Projects and the Networks of Excellence.

A number of pilot Article 169 proposals will be determined and presented by the Commission.

Relevant document: Commission's proposal on "the Framework Programme and the European Research Area: application of Article 169 and the networking of national programmes" (COM(2001)0282) - 30.05.01

Traditional instruments

These instruments are similar to those in FP5.

• Specific Targeted Research Projects

The Specific Targeted Research Project (STREP) is an evolved form of the shared-cost RTD projects and demonstration projects used in FP5. Its purpose is to support multipartner research, technological development and demonstration or innovation activities of a more limited scope and ambition, particularly for smaller research actors and participants from candidate countries.

Aims and objectives:	STREPs aim at improving: • European competitiveness or; • Meeting the meeting needs of society or Community policies. They can take the following forms: • An RTD project designed to gain knowledge or improve existing products, processes or services; • A demonstration project designed to prove the viability of new technologies but which cannot be commercialized directly.
Number of participants:	Minimum of three partners from three different Member States or Associated States, of which two must be Member States or Associated Candidate Countries. Some calls may specify a higher minimum number of participated.
Duration:	Typically between 2 to 3 years, but may in exceptional cases be extended beyond 3 years.
Type of funding:	Funding will be the form of a grant with a ceiling for EC contribution.
Projects management:	STREPs will require overall management and coordination of the consortium.
Related document:	'Provisions for implementing Specific Targeted Research Projects': European Commission working document - 11.11.02

• Coordination Actions

The Coordination Action (CA) is a reinforced form of the Concerted Actions/Thematic Networks available under FP5.

Aims and objectives:	CAs aim to promote and support the networking and coordination of research and innovation activities.
Project components:	CAs should cover: ▪ definition, ▪ organization, ▪ management of joint or common initiatives. They will cover activities such as: ▪ the organization of conferences; ▪ meetings; ▪ the performance of studies; ▪ exchange of personnel; ▪ the exchange and dissemination of good practices; ▪ setting up common information systems and expert groups.
Research spectrum:	A single project may span over the whole research spectrum (*i.e.*, from basic to applied research).
Expected funding:	Up to several hundreds of thousands of €
Type of funding:	Grant to the budget up 100% of actual costs.

• Specific Support Actions

The Specific Support Action (SSA) is a continuation of the Accompanying Measures activity available in FP5.

Aims and objectives:	SSAs main purposes are:
	▪ to support the implementation of FP6;
	▪ to potentially help the preparation of future Framework Programmes;
	▪ to stimulate, encourage and facilitate the participation of:
	  ○ SMEs,
	  ○ small research teams,
	  ○ newly developed and remote research centers,
	  ○ organizations from the Candidate Countries.

Project components:	The projects within the priority themes may cover: ▪ conferences; ▪ seminars; ▪ studies and analysis; ▪ Working and Expert Groups; ▪ operational support and dissemination; ▪ information and communication; or a combination of these as appropriate.
Type of funding:	Grant to the budget up to 100%.

Specific Projects for SMEs

The Specific Projects for SMEs were previously available under FP5 as SME Specific Measures.

Aims and objectives:	The main purpose is to promote the participation of SMEs.

Project components:	There are two main parts to this instrument:
	
	    ▪ **Co-operative Research Projects (CRAFT)**
	    Carried out by RTD performers for the benefit of a number of SMEs from different countries on common specific problems or needs.
	
	    ▪ **Collective research projects**
	    Carried out by RTD performers on behalf of industrial associations or industry groupings in sectors where SMEs are prominent with the aim to expand the knowledge base of large communities of SMEs.

Further information:	http://sme.cordis.lu/
Related document:	Support to the participation of SMEs in FP6: European Commission working document - 04.11.02

• Specific actions to promote research infrastructures

This instrument is an evolved version of the Research Infrastructures activity funded under the Improving Human Potential Programme under FP5.

Aims and objectives:	The primary objective of this instrument is:
	    ▪ to support the integrated provision of infrastructure related services to research communities at EU level.
	
	It will aim to mobilize a large number of stakeholders in a given class of infrastructures by combining within a single contract:
	    ▪ networking;
	    ▪ research teams in universities and other public research organizations;
	    ▪ industry;
	    ▪ equipment manufactures (*e.g.*, SMEs).
	
	Integrating Activities will be implemented as an Integrated Infrastructure Initiative (I3).

Project components:	There are four main schemes:
	    ▪ Communication Network Development;
	    ▪ Transnational Access;
	    ▪ Design Studies;
	    ▪ Development of New Infrastructures.

Number of participants:	I3 must include at least three independent legal entities established in two different Member States or Associated States, of which at least one must be Member States or Associated Candidate Countries. At least one these entities must operate a research infrastructure.

- **Marie Curie actions on mobility, training and excellence recognition**

Named after the French physicist, this instrument is a continuation of the Marie Curie Fellowships activity funded under the Improving Human Potential Programme under FP5.

Aims and objectives:	This action aims to provide a variety of options for individual researchers as well as host institutions.
Project components:	There is a number of different schemes on offer:
	Host-driven actions • Marie Curie Research Training Networks (RTN) • Marie Curie Host Fellowships for Early Stage Research Training (EST) • Marie Curie Host Fellowships for the Transfer of Knowledge (ToK) • Marie Curie Conferences and Training Course (SCF, LCF)
	Individual-driven actions • Marie Curie Intra-European Fellowships (EIF) • Marie Curie Outgoing International Fellowships (OIF) • Marie Curie Incoming International Fellowships (IIF)
	Excellence recognition • Marie Curie Grants for Excellent Teams (EXT) • Marie Curie Excellence Awards (EXA) • Marie Curie Chairs (EXC)
	Return and Reintegration Mechanisms (RRG, IRG)
Further information:	http://www.cordis.lu/improving http://www.cordis.lu/improving/fellowships/home.htm

Work programmes

The documents, which are the parts of the Work Programme legal versions of the Specific Programmes 1 and 2 as published in the Official Journal, can be downloaded from the Web-pages given below. All files are zipped and in Portable Document Format (*.pdf*).

Specific Programme 1: "Integrating and strengthening the European Research Area" (2002-2006)

http://www.cordis.lu/fp6/sp1_wp.htm

Specific Programme 2: "Structuring the European Research Area" (2002-2006)

http://www.cordis.lu/fp6/sp2_wp.htm

FP6 Contacts

FP6 Web-site

http://www.cordis.lu/fp6

FP6 Infodesks

The European Commission maintains an Infodesk for each research activity covered by the Sixth Framework Programme for the duration of their Calls. Any questions concerning the Call may be directed to the relevant Infodesk.

http://www.cordis.lu/fp6/infodesks.htm