The EU Sixth Framework Programme for Research, Technological Development and Demonstration (FP6)

National Delegates and National Contact Points for Ireland

2002 - 2006

INTEGRATING AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Focusing and Integrating Community Research

PRIORITY THEMATIC AREAS OF RESEARCH

Life Sciences, Genomics and Biotechnology for Health

Advanced genomics and its applications for health

Fundamental knowledge and basic tools for functional genomics in all organisms
  - Gene expression and proteomics
  - Structural genomics
  - Comparative genomics and population genetics
  - Bioinformatics
  - Multidisciplinary functional genomics approaches to basic biological processes

Applications of knowledge and technologies in the field of genomics and biotechnology for health
  - Technological platforms for the developments in the fields of new diagnostic, prevention and therapeutic tools

Combating major diseases

Application-oriented genomic approaches to medical knowledge and technologies
  - Combating cardiovascular diseases, diabetes and rare diseases
  - Combating resistance to antibiotics and other drugs
  - Studying the brain and combating diseases of the nervous system
  - Studying human development and the ageing process

Combating cancer
  - Establishing facilities and developing initiatives for the exploitation of research on cancer in Europe
  - Supporting clinical research, particularly clinical trials, aimed at validating new and improved interventions
  - Supporting translational research aimed at bringing basic knowledge through to applications in clinical practice and public health
  - Other issues related to cancer, such as ageing and cancer, regional differences, psycho-social aspects, palliative care and guidance to support groups

Confronting the major communicable diseases linked to poverty

Dr Gwilym Williams
BioResearch Ireland
Tel. 353 1 808 2748
Fax 353 1 837 0176
Email: gwilym.williams@enterprise-ireland.com
National Contact Point

Ms Mary Gillick
BioResearch Ireland
Tel. 353 1 837 0177
Fax 353 1 837 0176
Email: gillickm@biores-ir.ie
National Delegate
Information Society Technologies

Applied IST research addressing major societal and economic challenges
- Technologies for trust and security
- Ambient intelligence, e-inclusion
- e-business, e-government, e-work systems, e-learning
- Complex problem solving in science, engineering, businesses and for society

Communication, computing and software technologies
- Communication and network technologies
- Software technologies, embedded systems and distributed systems

Components and Microsystems
- Micro, nano and opto-electronics
- Micro and nanotechnologies, microsystems, displays

Knowledge and interface technologies
- Knowledge technologies and digital content
- Intelligent interfaces and surfaces

IST future and emerging technologies
Nanotechnologies and Nanosciences, Knowledge-based Functional Materials, and New Production Process and Devices

Nanotechnologies and nanosciences
- Long-term interdisciplinary research into understanding phenomena, mastering processes and developing research tools
- Nanobiotechnologies
- Nanometre scale engineering techniques to create materials and components
- Development of handling and control devices and instruments
- Applications in areas such as health and medical systems, chemistry, energy, optics, food and the environment

Knowledge-based multifunctional materials
- Development of fundamental knowledge
- Technologies associated with the production, transformation and processing of knowledge-based multifunctional materials, and biomaterials
- Engineering support for materials development

New production processes and devices
- Development of new processes and flexible and intelligent manufacturing systems
- Systems research and hazard control
- Optimising the life-cycle of industrial systems, products and services
Aeronautics and Space

Aeronautics
- Strengthening competitiveness by reducing development costs, aircraft direct operating costs and improving passenger comfort
- Improving environmental impact with regard to emissions and noise
- Improving aircraft safety
- Increasing operational capacity and safety of the air transport system

Space
- The European Satellite Navigation system – GALILEO: development of multisectorial systems, equipment, tools and user equipment
- Global Monitoring and Environmental Security – GMES: stimulate evolution of satellite-based information services by development of technologies
- Satellite telecommunications
Food Quality and Safety

Epidemiology of food-related diseases and allergies

Impact of food on health

"Traceability" processes all along the production chain

Methods of analysis, detection and control

Safer and environmentally friendly production methods and technologies and healthier foodstuffs

Impact on animal feed on human health

Environmental health risks

- Risks linked to the food chain
- Combined exposures of authorised substances
Sustainable Development, Global Change & Ecosystems

Sustainable energy systems

- Clean energy, in particular renewable energy sources and their integration in the energy system, including storage, distribution and use
- Energy savings and energy efficiency, including those to be achieved through the use of renewable raw materials
- Alternative motor fuels
- Fuel cells, including their applications
- New technologies for energy carriers/transport and storage, in particular hydrogen
- New and advanced concepts in renewable energy technologies
- Capture and sequestration of CO₂, associated with cleaner fossil fuel plants

Sustainable surface transport

- Developing environmentally friendly and competitive transport systems and means of transport
- Making rail and maritime transport safer, more effective and more competitive

Global change and ecosystems

- Impact and mechanisms of greenhouse gas emissions and atmospheric pollutants on climate, ozone depletion and carbon sinks (oceans and inland waters, forests and soil)
- Water cycle, including soil-related aspects
- Biodiversity and ecosystems
- Mechanisms of desertification and natural disasters
- Strategies for sustainable land management, including coastal zones, agricultural land and forests
- Operational forecasting and modelling, including global climate change observation systems
- Complementary research
Citizens and Governance in a Knowledge Based Society

Knowledge-based society and social cohesion
- Improving the generation, distribution and use of knowledge and its impact on economic and social development
- Options and choices for the development of a knowledge-based society
- Variety of paths towards a knowledge society

Citizenship, democracy and new forms of governance
- Implications of European integration and enlargement for governance and the citizen
- Articulation of areas of responsibility and new forms of governance
- Issues connected with the resolution of conflicts and restoration of peace and justice
- New forms of citizenship and cultural identities
Policy support and anticipating the EU’s scientific and technological needs

– To underpin the formulation and implementation of Community policies, in particular the common agricultural policy (CAP), the common fisheries policies (CFP), environment, energy, transport, health, development aid and consumer protection

– To explore new and emerging scientific and technological challenges and opportunities, including in particular interdisciplinary and multidisciplinary research areas not covered by the seven thematic priorities.

Specific research activities for SMEs

– Collective Research is a form of research undertaken by RTD performers on behalf of industrial associations or industry groupings in order to expand the knowledge base of large communities of SMEs

– Cooperative Research is a scheme whereby a limited number of SMEs from different countries having specific problems or needs, outsource the required research to an RTD performer while retaining ownership of the results

SMEs are encouraged to participate in the activities implemented under the priority thematic areas. At least 15% of the budget relating to the seven thematic priorities will be allocated to SMEs

Specific international cooperation activities

Activities involving third countries are carried out in two forms:

– Participation of third countries in projects within the seven priority thematic areas

– Specific international cooperation activities with three groups of countries: the Mediterranean third countries including the Western Balkans, Russia and other NIS countries, and the developing countries. Research priorities in particular will cover:
  – In the case of the developing countries, the problems of health and public health, food security, and the rational exploitation of resources
  – In the case of the Mediterranean third countries, issues relating to environment, health and water issues, as well as protection of the cultural heritage.
  – In the case of Russia and other NIS countries, stabilisation of R&D potential, issues relating to changes in the industrial production system, environment and health protection and related safety aspects.
Support of the Coordination of Activities

Coordination of national activities

- Networking of national or regional programmes or parts of programmes; actors: public authorities, research agencies (ERA-NET proposals)
- Development of an integrated information system on national and regional research programmes; actor: the European Commission

Coordination at European level

- Scientific and technological activities carried out in other European cooperation frameworks such as COST, EUREKA, ESF
- Collaboration and joint initiatives of European organisations (CERN, ESA, ESO, EMBL, ESRF, ILL, etc.)

Support for the Coherent Development of Research and Innovation Policies

- Analyses and studies relating to foresight, statistics and science and technology indicators
- Benchmarking of research and innovation policies at national, regional and European level
- Mapping scientific and technological excellence in Europe
- Improving the regulatory and administrative environment for research and innovation in Europe
Structuring the European Research Area

Research and Innovation

Networking the players and encouraging interaction

- Encourage and validate initiatives to promote creation of innovative businesses
- Exchange of good practices with regard to communication, training, transfer of knowledge

Encouraging transregional co-operation

- Promote exchange of information, facilitate transfer of good practice and put in place regional innovation strategies

Experimenting with new tools and approaches

Putting services in place and consolidating them

- CORDIS
- Innovation Relay Centres
- Information and support services in the field of intellectual and industrial property rights and access to innovation funding

Stepping up economic and technological intelligence

- Innovation promotion in SMEs
- Gathering, analysis and dissemination of information on S&T developments, applications and markets
- Identification and dissemination of best practice

Analysing and evaluating innovation in Community research projects

Human Resources and Mobility

Host-driven actions

- Marie Curie Research Training Networks
- Marie Curie Host Fellowships for Early Stage Research Training
- Marie Curie Host Fellowships for the Transfer of Knowledge
- Marie Curie Conferences and Training Courses

Individual-driven actions

- Marie Curie Intra-European Fellowships
- Marie Curie Outgoing International Fellowships
- Marie Curie Incoming International Fellowships

Excellence Promotion and Recognition

- Marie Curie Excellence Grants
- Marie Curie Excellence Awards
- Marie Curie Chairs

Return and reintegration mechanisms

- Support for the reintegration of researchers into scientific careers in Europe after their Marie Curie mobility period
- Provision of opportunities for those European researchers who have spent long periods outside Europe and wish to return

Research Infrastructures

- Transnational access to major research infrastructures for research teams and individual researchers
- Integrating activities combining cooperation networks with transnational access and research projects

- Communication network development in conjunction with the thematic priority Information Society Technologies to establish a high-capacity and high-speed communication network (GEANT)
- Design studies: feasibility studies for new infrastructures with a European dimension
- Development of new infrastructures: contribution to their development alongside with other funding agencies

Science and Society

Bringing research closer to society

- Science and governance: analyse and support best practice, develop new consultation mechanisms
- Scientific advice and reference systems: exchange of experience and good practice; monitoring the production of scientific advice worldwide

Responsible research and application of science and technology

- Ethics: networking between existing bodies and activities, promotion of dialogue in a global context, awareness raising, training, research on ethics in relation to science and technology
- Uncertainty, risk and the precautionary principle: analysis and best practice

Stepping up the science-society dialogue and women in science

- Public awareness of science and science communication
- Awards for scientific achievement, collaboration and communication
- Promoting young people’s interest in science and scientific careers
- Women and science
### INTEGRATING AND STRENGTHENING THE EUROPEAN RESEARCH AREA

#### TYPES OF ACTIVITIES

<table>
<thead>
<tr>
<th>Types of activities</th>
<th>Amount (EUR million)</th>
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<tbody>
<tr>
<td><strong>FOCUSBING AND INTEGRATING COMMUNITY RESEARCH</strong></td>
<td>13,345</td>
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<tr>
<td><strong>Priority thematic areas of research</strong></td>
<td>11,285</td>
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<tr>
<td>Life sciences, genomics and biotechnology for health</td>
<td>2,255</td>
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<td>Advanced genomics and its applications for health</td>
<td>1,100</td>
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<td>Combating major diseases</td>
<td>1,155</td>
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<td>Information society technologies</td>
<td>3,625</td>
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<tr>
<td>Nano-technologies and nano-sciences, knowledge-based multifunctional materials, and new production processes and devices</td>
<td>1,300</td>
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<tr>
<td>Aeronautics and space</td>
<td>1,075</td>
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<td>Food quality and safety</td>
<td>685</td>
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<tr>
<td>Sustainable development, global change and ecosystems</td>
<td>2,120</td>
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<td>Sustainable energy systems</td>
<td>810</td>
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<td>Sustainable surface transport</td>
<td>610</td>
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<td>Global change and ecosystems</td>
<td>700</td>
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<td>Citizens and governance in a knowledge-based society</td>
<td>225</td>
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<tr>
<td><strong>Specific activities covering a wider field of research</strong></td>
<td>1,300</td>
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<tr>
<td>Policy support and anticipating scientific and technological needs</td>
<td>555</td>
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<tr>
<td>Horizontal research activities involving SMEs</td>
<td>430</td>
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<tr>
<td>Specific measures in support of international cooperation</td>
<td>315</td>
</tr>
<tr>
<td><strong>Non-nuclear activities of the Joint Research Centre</strong></td>
<td>760</td>
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<tr>
<td><strong>STRENGTHENING THE FOUNDATIONS OF THE EUROPEAN RESEARCH AREA</strong></td>
<td>320</td>
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<tr>
<td>Support for the coordination of activities</td>
<td>270</td>
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<tr>
<td>Support for the coherent development of policies</td>
<td>50</td>
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#### STRUCTURING THE EUROPEAN RESEARCH AREA

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<tr>
<th>Types of activities</th>
<th>Amount (EUR million)</th>
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</thead>
<tbody>
<tr>
<td><strong>STRUCTURING THE EUROPEAN RESEARCH AREA</strong></td>
<td>2,605</td>
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<tr>
<td>Research and Innovation</td>
<td>290</td>
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<tr>
<td>Human Resources</td>
<td>1,580</td>
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<tr>
<td>Research infrastructures</td>
<td>655</td>
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<tr>
<td>Science and society</td>
<td>80</td>
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**TOTAL** 16,270

*The Sixth Framework Programme has an associated budget of €17.5 billion - the EC Framework Programme having a budget of €16.27 billion, and the Euratom Framework Programme having a budget of €1.23 billion.*
FP6 National Information & Support Unit

FP6 Information & Support Unit

A national Information and Support Unit has been set up in Enterprise Ireland to assist researchers interested in taking part in the Sixth Framework Programme. The Unit acts as a first point of contact for queries, and disseminates up-to-date information about the Programme. The service organises information and other events and works closely with the National Delegates and the National Contact Points for the various FP6 themes and activities. The system of National Contact Points (NCPs) is the main structure to give advice, practical information and assistance to potential participants in FP6.

Proposal Preparation Support for Companies

Enterprise Ireland may be able to offer financial assistance towards the cost of preparing a proposal through its Feasibility Grants Scheme, including the costs of travelling to meet potential partners, hiring a consultant, or covering the personnel costs of working on the proposal.

Travel Support

Third level researchers may be eligible for support in order to travel to exploratory network meetings.

For advice or assistance, please contact:

Jackie Golden
Tel: 353 1 808 2372
Fax: 353 1 837 0178
Email: Jackie.golden@enterprise-ireland.com

Anne Marie Daly
Tel: 353 1 8082473
Fax: 353 1 837 0178
Email: anne-marie.daly@enterprise-ireland.com

Up-to-date information is available on Enterprise Ireland’s FP6 website
www.fp6-ireland.ie
and
www.fp6-ireland.com