European Framework for Exploring Nanotechnology

- Seventh Framework Program (FP7)

Mary Kavanagh
Science, Technology and Education Counselor
European Commission Delegation to the USA

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• General Introduction to FP-7
The EU's Seventh Research Framework Programme (FP7, 2007-2013)

- FP-7: Seventh Framework Programme for Research and Technological Development

- The European Union’s main instrument for funding research in Europe between 2007 and 2013

- FP7 supports research in selected priority areas
EU Research Framework Programmes
Annual Budgets between 1984 and 2013

FP7 | The Structure

Cooperation – Collaborative research

Ideas – Frontier Research

People – Marie Curie Actions

Capacities – Research Capacity

JRC non-nuclear research

Euratom – JRC nuclear research

Euratom indirect actions – nuclear fusion and fission research
FP7 Indicative breakdown (€ million)

- Ideas: €7460
- Cooperation: €32,365
- JRC: €1751
- Euratom: €2751
- Capacities: €4,217
- People: €4,728
Cooperation programme (€ million)

- Socio-economic Sciences and Humanities: €610
- Transport (including Aeronautics): €4180
- Energy: €2300
- Environment (including Climate Change): €1800
- Nano production: €3500
- Information and Communication Technologies: €9110
- Health: €6050
- Food, Agriculture and Biotechnology: €1935
• Process and Funding Schemes
• **Work Program** (annual): Strategy/ approach, timing and content of calls (topics, funding schemes, budgets etc.)

• **Calls for Proposals** (no spontaneous applications)

• **Deadlines** for submission

• Electronic submission of proposals

• **Eligibility** Criteria

• **Evaluation** Criteria

• **Peer review** evaluation by at least 3 experts
Funding Schemes

- **Collaborative projects**
  - Consortia with participants from different countries
  - New knowledge, technology, products or common resources for research

- **Networks of Excellence**
  - Joint programmes by organisations integrating activities in a given field

- **Coordination and support actions**
  - Networking, exchanges, trans-national access to research infrastructures, studies, conferences, etc.

- **Support to frontier research** (ERC)

- **Training and career development** of researchers (Marie Curie)

- Research for the benefit of specific groups (in particular **SMEs**)
Nanotechnology
European Nanotechnology Policy: integrated, safe and responsible

The European Strategy for nanotechnology and the Action Plan


Health, safety, environmental and consumer protection

Societal Issues

Infrastructure

Research and Development

Industrial Innovation

Human Resources

International Co-operation
## I. Cooperation

<table>
<thead>
<tr>
<th>Theme</th>
<th>Budget (€ million, current prices)</th>
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<tr>
<td>Health</td>
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<td>Biotechnology, food and agriculture</td>
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<td>Information and communication technologies</td>
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<td>Security</td>
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<td>Space</td>
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<td><strong>Total</strong></td>
<td><strong>32 413</strong></td>
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Four activities:

- Nanosciences and nanotechnologies
- Materials
- New production
- Integration of technologies for industrial applications
Nanosciences, nanotechnologies, materials and new production technologies

Nanosciences and nanotechnologies

- Objective:
  - Increase and support the up-take of knowledge generated in this revolutionary field for all industrial sectors

- Topics include:
  - Interface and size-dependent phenomena
  - Materials’ properties at nano-scale
  - Self assembly
  - Metrology
  - New concepts and approaches
  - Impacts on health and safety
  - Convergence of emerging technologies
Health, Safety and Environmental Impacts

- Specific, easy to use portable devices for measurement and analysis
- Risk Assessment of engineered nanoparticles on health and the environment (co-op with USA)
- Scientific review of data and studies on the potential impact of engineered nanoparticles on health, safety and the environment.
- Creation of a critical and commented database on health, safety and the environmental impact
- Co-ordination in study of health, safety and the environmental impact of engineered nanoparticles
Nanotechnology in other themes of FP-7

- **Biotech, food and agriculture:**
  Converging technologies and their potential for the food area

- **Health:**
  Novel targeted imaging probes for *in vivo* diagnosis

- **Socio-economic sciences:**
  Foresight Activities (e.g. long-term challenges)
- EU research: http://ec.europa.eu/research
- Seventh Framework Programme: http://ec.europa.eu/research/fp7
- Nanotechnology in the EU: http://ec.europa.eu/nanotechnology
- Nanotechnology Research in the EU: http://cordis.europa.eu/nanotechnology