

# Ex-post Evaluation of the IST Thematic Priority in the 6<sup>th</sup> FP

## Panel of Independent Experts

### Terms of Reference

#### 1. CONTEXT

##### *The European Union's R&D Framework Programmes*

European Research policy is geared towards the realisation of the Lisbon objectives to transform the European Union into a competitive and dynamic knowledge based economy, capable of sustainable economic growth. Investing in knowledge and R&D is one key way for the European Union to deliver on the Lisbon goals, and the Framework Programmes (FPs) are key instruments of the Lisbon Strategy and now of the Renewed Sustainable Development Strategy.

The eEurope Action Plan, adopted in 2000 as part of the "Lisbon" Implementation Strategy, was re-refocused in 2003-5<sup>1</sup>. In 2005, it was broadened and again re-focused as the i2010 Strategy – the European Information Society for Growth and Jobs; in which support to EU IST-RTD plays a major role. The 2<sup>nd</sup> annual review of this strategy was completed in March 2007<sup>2</sup> and a more extensive mid-term review is scheduled in 2008 to ensure that i2010 continues to be a valid reference framework.

The 6<sup>th</sup> Framework Programme (FP6)<sup>3</sup> brought together all the different lines of research pursued by the European Union from 2003 until 2006. The bulk of expenditure under the sixth framework programme was on major collaborative research projects that were structured so as to have an integrating effect on Europe's research resources. The research themes were selected in the light of political debate, expert advice, and public consultation as strategic themes that will be achieved through combinations of scientific disciplines.

In March 2005, the European Union, recognising the need for additional structural changes of the EU's R&D, adopted a new Framework programme, the 7<sup>th</sup> (FP7)<sup>4</sup>, to strengthen public research funding and improve the 'framework conditions' for private investment in R&D and the swift exploitation of discoveries and inventions.

The agreement in 2005 on the Financial Perspectives (the EU budget) for 2007-2013 included a provision for a substantial budget review by 2009 – to re-assess the adequacy of budget support to EU innovation policies. The Decision on the FP7 also

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<sup>1</sup> A final evaluation is underway, and a report will be available in September 2007.

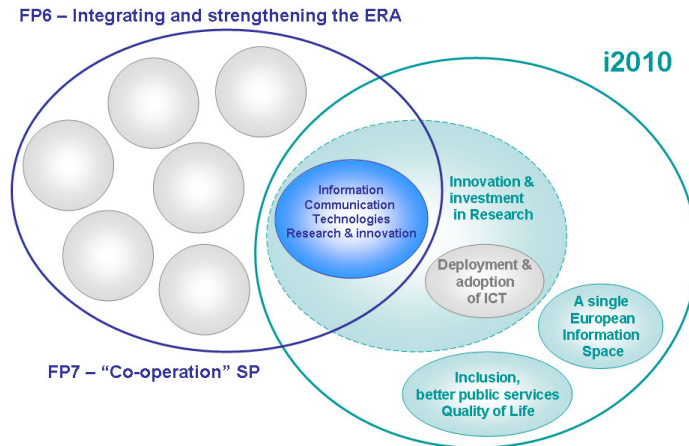
<sup>2</sup> i2010 – Annual Information Society Report 2007 – COM(2007)146 Final and accompanying documents SEC(2007)395; vol. 1, 2 and 3.

<sup>3</sup> <http://fp6.cordis.lu/fp6/home.cfm>

<sup>4</sup> <http://www.cordis.lu/fp7/>

foresees that the Commission will make, where appropriate, proposals for the adaptation of the FP, together with the conclusions of the FP7 Interim Evaluation due by 2010.

This evaluation is therefore scheduled so that it can provide a contribution to this budget review and the interim evaluation of the 7<sup>th</sup> FP.



*Fig 1: The IST Thematic Priority or the Information and Communication Technologies Theme<sup>5</sup>*

This R&D portfolio commonly referred to as the 'IST Thematic Priority' or 'Information and Communications Technologies' (ICT) theme has received from the Union 3,625 Mio € for R&D between 2003 and 2006 and a budget 9,050 Mio € is allocated for the period 2007-2013.

Its objective is to help realise the benefits of information technologies for Europe, and in particular to ensure European leadership in the generic and applied technologies at the heart of the knowledge economy. It aims to drive and stimulate innovation through ICT use and ensure that ICT progress is transformed into benefits for all European citizens, businesses, industry and governments.

## 2. LEGAL BASE

Both the increasing importance of the changes in the policy context and the objectives of and the proposed level of investment in the EU's RTD activities result to the need to further improve and strengthen the evaluation function in order to best meet the public requirements for increased transparency, accountability and cost-effectiveness.

The Commission is therefore bound, through the Financial Regulation<sup>6</sup> (Articles 60 and 27) and its Implementing Rules<sup>7</sup>, to perform an ex-post evaluation of the 6<sup>th</sup> FP research activities in line with the principle for Sound Financial Management.

<sup>5</sup> IST in FP6: <http://www.cordis.lu/ist/> and ICT in FP7: <http://cordis.europa.eu/fp7/ict/>

<sup>6</sup> Council Regulation no 1605/2002 of June 2002 on the Financial Regulation applicable to the general Budget of the European Communities. (OJ L248/1 – 16.9.2002)

As a consequence of this obligation, the legal base of the 7<sup>th</sup> Framework Programme for Research, Technological development and Demonstration (RTD) explicitly mandates<sup>8</sup> that *"Not later than 2010, the Commission shall carry out, with the assistance of external experts, an evidence-based interim evaluation of this Framework Programme and its specific programmes building upon the ex-post evaluation of the Sixth Framework Programme..." and clarifies that this "... independent ex-post programme evaluation would be undertaken 2 years after the end of FP6."*

### 3. UTILITY

An ex-post evaluation of the 6<sup>th</sup> FP research activities is therefore scheduled for 2008-2009. The evidence collected for and findings of this ex-post evaluation would be used in the ex-post evaluation of the 6<sup>th</sup> FP; the interim evaluation of the ICT theme of the 7<sup>th</sup> FP; the assessment of the progress of i2010<sup>9</sup> and feed into the preparation of the mid-term review report planned for 2008.

The following figure provides the timeline of the major evaluation milestones for FP6, FP7, IST research and i2010.

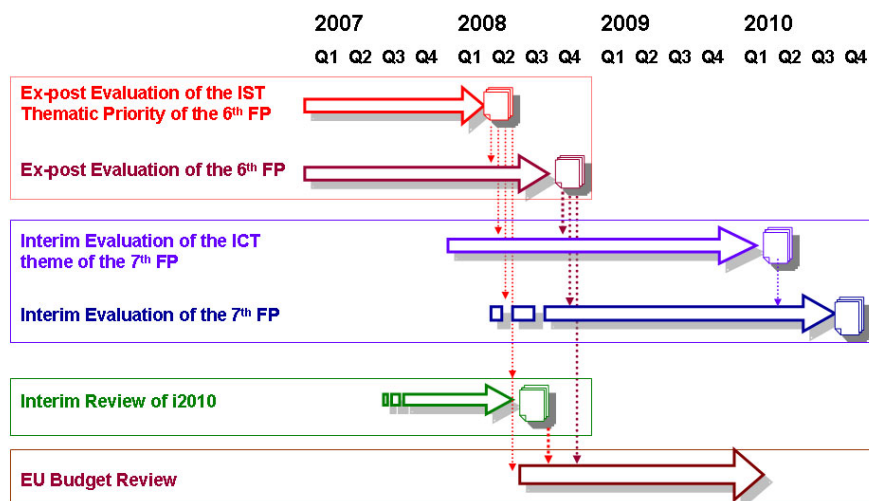


Fig 2: Timeline of the major evaluation exercises

<sup>7</sup> Commission Regulation no 2342/2002 of 23 December 2002 laying down detailed rules for the implementation of Council Regulation on the Financial regulation applicable to the general budget of the European Communities (OJ L357/1 31.12.2002)

<sup>8</sup> Decision no 1982/2006/EC of the European Parliament and the Council concerning the 7th framework programme of the European Community for research, technological development and demonstration activities (2007-2013) (OJ L412/1 30.12.2006)

<sup>9</sup> Requirement introduced by the Council and stated in Annex 1 of the Council conclusions 14225/05

#### 4. OBJECTIVES

The objective of this ex-post evaluation is to analyse and assess the systemic effects of the 6<sup>th</sup> FP research activities, and the extent to which they have contributed to the wider EU strategic objectives.

In accordance with the current evaluation guidance<sup>10</sup>, it will concentrate on the aspects of relevance; efficiency; effectiveness; utility and sustainability; and will address key evaluation questions. An indicative list of these evaluation questions is provided in Annex I.

#### 5. SCOPE AND FOCUS

DG-INFISO has also managed part of the "Infrastructure" programme in the 6<sup>th</sup> FP – notably the part concerned with high-speed networks for research institutions in Europe – interconnecting with those elsewhere in the world. Since this activity is fully integrated with the management of the IST Thematic Priority, we suggest that it be covered in the same evaluation framework.

EU research and technology development often has a broader industrial and economic impact only after many years: for investments in technologies and standards for mobile communications systems, it has typically taken 10-12 years before the full impact is measurable. Research supported in the 6<sup>th</sup> FP also builds on the collaborations and results from the 4<sup>th</sup> and 5<sup>th</sup> FPs. While this evaluation is formally of the 6<sup>th</sup> FP, we nevertheless recommend that the Panel takes account of the evidence now available about the impact of IST-RTD in the 5<sup>th</sup> FP.

Research and technology development has no value in isolation. Its effectiveness depends on the receptiveness of the economic and social environment – notably on the regulatory framework and the ability of the broader innovation and investment framework to pull through new products and services.

An evaluation of the effectiveness of IST-RTD must therefore also look at the receptiveness of the innovation and regulatory environment – the i2010 framework was established in 2005 to ensure a more coherent approach to information society developments in Europe, and will be reviewed in early 2008. This evaluation will be a major contributor to the review and its scope needs to be correspondingly broader.

A number of member states have requested that a particular focus is given to the industrial and innovation impacts of the 6<sup>th</sup> FP. The ICT-sector continues to provide the largest (32%) investment in research and innovation, worldwide and in Europe. IST-based innovations continue to be the main driver of productivity growth in the US and to a lesser extent the EU, and of new service and employment growth worldwide. Europe's industrial capacities to contribute to, and ability to benefit from, ICT-based innovations are therefore central to the realisation of EU economic and social policy objectives.

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<sup>10</sup> Web reference: [http://ec.europa.eu/budget/evaluation/Key\\_documents/regureq\\_en.htm](http://ec.europa.eu/budget/evaluation/Key_documents/regureq_en.htm)

## **6. ORGANISATION**

A panel appointed by the Director General of Information Society and Media DG will carry out the FP6 ex-post evaluation as a strategic peer review. The panel will work by consensus, and will be supported by a team of professional evaluators, who will compile input, plan the evaluation and help prepare the Panel's report.

Evidence base: The Commission will provide the panel and with all necessary information, in particular:

- Relevant policy documents and reports on research activities;
- Previous IST Monitoring and Evaluation reports;
- Self-assessments by the teams responsible for managing the activities;
- Reports from the Framework contract for 'IST Impact Analysis' and other studies/reports, synthesised by evaluation expert(s);

A set of studies is also underway to provide the experts with a knowledge base to support their work. These studies encompass analyses of impact of various IST research portfolios as well as contextual and methodological studies.

## **7. EXPECTED OUTPUT**

The panel will produce a report by May 2008, which will include findings and a set of conclusions and recommendations.

The Panel's report will be presented to the Director General of DG-Information Society and Media, and the Commissioner. It will also be sent to the IST Advisory Group (ISTAG); the members of the ICT Committee; other Commission services; and it will be made available to the EU ICT research constituency through the Commission's websites (e.g. Europa, Cordis) and publications. It will be an important contribution to the ex-post evaluation of the whole 6<sup>th</sup> Framework Programme.

The Commission services will take account of the findings and recommendations in preparing proposals for future research and technology development in this area, and in the interim evaluation of the 7<sup>th</sup> Framework Programme planned for 2010.

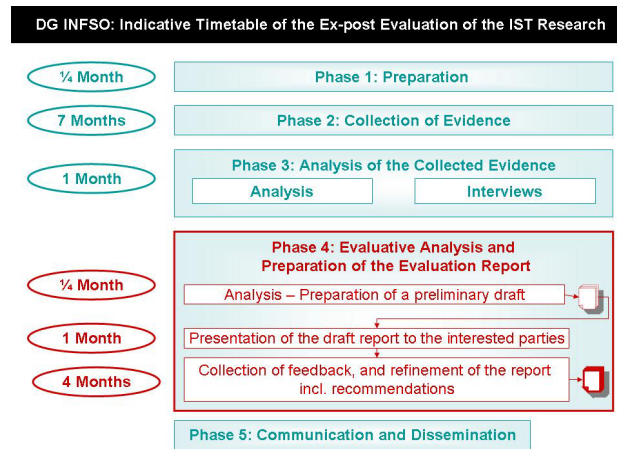
## **8. INDICATIVE TIMETABLE**

The panel will start its work in June-July 2007 and its report should be finalised by May 2008. The work will be performed as follows:

## Phase 1 – Preparation

- Kick-off meeting of the Evaluation Panel
- Understanding of the ICT research and evaluation contexts
- Refinement of the evaluation questions
- Analysis of the available evidence
- Requirements for additional evidence
- Division of tasks and other organisational arrangements

*Starting date: June 2007*



*Fig 3: Indicative planning*

## Phase 2 - Collection of additional evidence

- Collection of additional evidence: self-assessments, Surveys, studies/Reports

*Starting date: July 2007*

## Phase 3 – Analysis of the collected evidence

- Analysis of the additional evidence
- Interviews with Commission services, and other key people and groups.

*Starting date: December 2007*

## Phase 4 – Evaluative analysis and preparation of the evaluation report

- Evaluative analysis - Preparation of a draft (preliminary) report and recommendations
- Presentation of the draft (preliminary) report to the interest parties
- Collection of feedback, and refinement of the (final) report and recommendations

*Starting date: January 2008*

## Phase 5 – Communication and dissemination

- Communication of the evaluation findings to the interested parties and stakeholders

*Starting date: June 2008*

**Annex I**  
**List of evaluation questions**

- (1) Relevance and strategic impact:
  - (a) Has the IST Thematic priority of the 6<sup>th</sup> FP contributed to the EU strategic objectives<sup>11</sup> and policies, notably the Lisbon and Sustainable Development ones? And How?
  - (b) Has the IST Thematic priority of the 6<sup>th</sup> FP contributed to the DG INFSO strategic objectives and policies, notably the i2010 initiative? And How?
  - (c) To what extent has the IST Research been complementary and coherent with other i2010 actions and activities?
  
- (2) Efficiency
  - (a) Was the IST Thematic priority pursued in a cost-effective manner?<sup>12</sup>
  - (b) Was the legal framework (Rules of participation, Model contract, IPRs, etc.) appropriate to the needs of the stakeholders? Were the implementation measures and processes operated in a clear and transparent manner?<sup>13</sup>
  - (c) Have the IST research activities constituted the best way of obtaining the objectives set?
  
- (3) Effectiveness:
  - (a) Were the overall and specific objectives of the IST Thematic priority of the 6<sup>th</sup> FP, and of the workprogrammes met<sup>14</sup>?
  - (b) How relevant, coherent and useful were the Workprogrammes?

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<sup>11</sup> The objectives of the 6<sup>th</sup> FP were to strengthen the European Research Area and the scientific and technological basis of European Industry and encourage its international competitiveness, and to promote research activities in support of other EU policies.

<sup>12</sup> This question will address the efficiency of management (budget implementation, time to contract, etc.) and of key implementation processes such as the evaluation of proposals. It will also examine: (a) the costs of participation (e.g. preparing a proposal) and management (e.g. project management and administration), (b) progress made towards simplification and (c) reduction of administrative burdens.

<sup>13</sup> This question will examine whether the rules for participation, 'instruments' and modalities for implementation were well defined and appropriate; whether the processes were defined and operated in a clear manner; whether the levels of funding and other available resources were adequate; and whether the targeted research communities were able to respond appropriately (incl. an analysis of the reasons and factors effecting their participation and non participation).

<sup>14</sup> This question will examine the major results in terms of scientific, technological and socio-economic outputs; in terms of international co-operation, knowledge transfer and innovation, human resources development and mobility, and in terms of supporting and enhancing co-ordination and coherence of research activities.

- (c) How consistent were the workprogrammes with the objectives of the IST thematic Priority?
  - (d) Were the results of the IST research effectively exploited as commercial products and services, used in developing new regulations or did they support the definition of new or revised policy at Member State, EU or international level?
- (4) Utility:
- (a) Has the IST Thematic Priority of the FP6 been relevant to the key scientific and technological advances made in the field during the relevant time period?
  - (b) What research outcomes would not have been achieved without the FP IST Thematic priority?
  - (c) Have the IST research activities produced unexpected results?
  - (d) Have the research activities funded under the IST thematic priority corresponded with needs, problems and issues over and beyond those embodied in stated objectives?
  - (e) Are the results, their effects and impacts globally satisfactory from the point of view of direct or indirect beneficiaries<sup>15</sup>?
  - (f) Have some IST research activities had other unexpected positive or negative impacts?
- (5) Sustainability:
- (a) Are the effects of the IST research activities likely to continue into future in the absence of EU intervention or support<sup>16</sup>?

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<sup>15</sup> This question will assess the impacts on the patterns of trans-European interaction within the IST research community, or directly on the IST research stakeholders or on special social groups, economic sectors or regions (inside or outside EU).

<sup>16</sup> This question concerns the continued impacts at macro-level (e.g. on economic and social cohesion e.g. employment, competitiveness, better living conditions, etc.) or at micro-level (e.g. infrastructures, productivity, etc.) in the medium- and long-term and at global, Europe, MS, and regional levels. In particular, it concerns the extent to which the IST research activities permanently integrated and strengthened the European Research Area for IST and the impact on IST research collaboration on other EU or national/regional or business initiatives.