

AVEDAS
Innovation Management



Summary presentation of ISTpact

January 2011

ISTpact

Study into the impact of FP6 IST (ISTpact)

for the

EUROPEAN COMMISSION

Information Society and Media Directorate-General

30-CE-0310099/00-79

Start date of project: 01.09.2010

Duration: 18 months

Coordinator: AVEDAS AG

1. Introduction

A steady stream of breakthrough and incremental innovations within the field of “Information Society Technologies” (IST) is critical for Europe to ensure its future competitiveness. The objective of the European Commission (EC) is to support the above, while ensuring a transition towards a more knowledge based society and sustainable development. In particular, the EC has notably funded the IST field through the Sixth Framework Programme, hereinafter referred to as FP6 IST.

In this context, the EC launched this “Study into the impact of FP6 IST (ISTpact)” in order to analyse and develop an improved understanding of the systemic and socio-economic effects. This study is not a programme evaluation, but an impact analysis focusing on the benefits that organisations gained from their participation in FP6 IST as well as the wider impacts of the FP6 RTD projects..

The project effectively commenced on September 1st, 2010 and is expected to continue until March 2012.

The objective of this summary is to clarify how the study is set up, the methodology to be applied and the activities that will be conducted during the study.

2. Project objective and modules

The main objective of the project is to analyse and measure the overall impact of research funded in the field of IST under FP6. The study is based on a three step approach, outlined below and schematically represented Figure 1:

- data collection and composition analysis – Module 1
- analysis of systemic impact of FP6 IST RTD projects in the innovation system – Module 2
- socio-economic assessment of FP6 IST impact in the wider R&D ecosystem – Module 3.

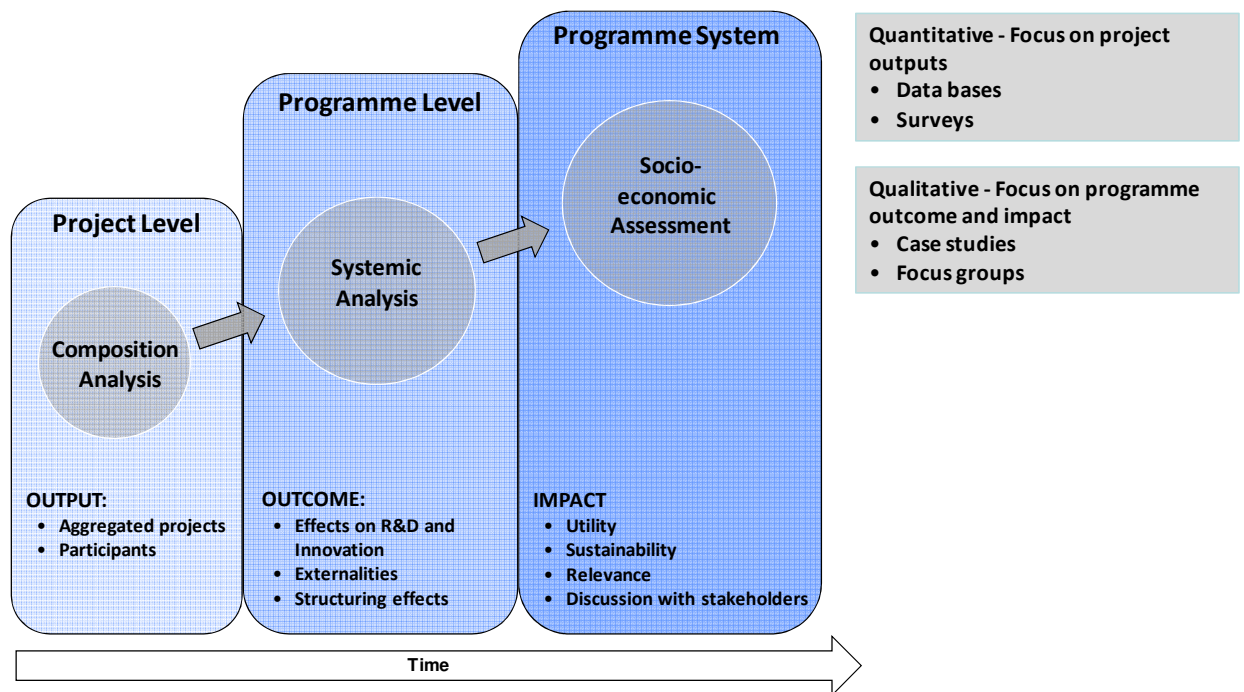


Figure 1: Schematic representation of the 3-step approach for the impact analysis

Module 1: Data collection and composition analysis

The main task for Module 1 is to collect, structure and aggregate project outputs and results of FP6 IST projects.

The two main requirements are, therefore, to:

- clearly understand the strategic priorities, objectives and requirements of each thematic area that will be conducted through a thorough analysis of Programme documents, supported by scoping interviews with EC officials involved. In this process, it is of primary importance to describe the structure of the industry and the R&D system related to the respective thematic areas.

- obtain a complete data set enabling characterisation of project outputs. This will be done through analysis of data available by the Commission databases or obtained by other studies and new data to be collected by the contractor by a complementary survey.

The primary independent variables of the investigation are the thematic areas, the different kinds of participants (according to characteristics such as public/private, research – academic/large enterprise – SME), their area of activity in terms of market and sector segment and their country of operation.

The investigation, to be carried out in the form of a survey addressing the full population of FP6 IST participants, aims to produce **output statistics** in terms of:

- scientific production and quality (peer reviewed publications and citations)
- knowledge creation and skills (staff trained formally or on-the-job)
- networks, interactions and joint activities
- standards, regulations, specifications.

Module 2: Analysis of systemic impact of FP6 IST RTD projects in the innovation system

The main requirement is to, where possible, quantify the outcome of the programme. A number of cross-cutting dimensions will be examined, such as:

- effects on the R&D and innovation system, focusing on the contribution of the programme to strengthen European research and innovation capacities and capabilities
- externalities, including spill-over benefits, brain circulation and the social rate of return of the programme
- structuring effects, such as the mediating effect of the programme, as well as its impact on connecting the different themes and disciplines, networking and establishing new forms of cooperation.

The accent is on determining and characterising the extent of different dimensions of impact, e.g. in terms of scientific, technological, business, networking performance, skills and capacities, through surveys and interviews with project and programme stakeholders. The systemic analysis is to be further supported by case studies, conducted at the level of selected projects, enabling to provide validation, further insight and illustrations for the different trends observed at the level of the entire population of project participants.

As shown in other related studies, there are certain “input” parameters related to the project and consortium initial design, evolvement and actual implementation of activities that may have strong interrelations with the different impact dimensions. Including such input parameters would enable measurement of the extent to which participating organisations and forms of cooperation are able to share in, or contribute to the different forms of project impact. For the purposes of this systemic impact analysis, we will therefore propose to elaborate further dimensions, in addition to the different impact dimensions mentioned above, and quantify the effects in these new dimensions.

Examples of such dimensions are:

- IST participant organisation background (e.g., R&D track record, financial performance, market position)
- Project structures and compositions (e.g. sectoral and technological focus, involvement of main players, partner roles, partner specific objectives for participating)
- Objectives and achievements (degree of achievements at project and participating organisation level)
- Obstacles and success factors (at project and participating organisation level).

Module 3: Socio-economic assessment of FP6 IST impact in the wider R&D ecosystem

The focus is on assessing the social and economic impact of FP6 IST in the wider environment within which it operates, but also what results will have long-term effects on European competitiveness. Other important aspects include assessing the extent to which programme results are useful, applicable and relevant for Europe and its social return in a wider R&D context, and if they have brought Europe closer to the aims of the Lisbon objectives and the EC research policies within IST.

This objective requires a deeper analysis of aggregated data and results obtained so far at project and programme level in the light of the wider R&D ecosystem, with a view to understanding what outputs and achievements of the programme are expected to have a lasting social and/or economic market impact, and what the long-term effects these will have on European competitiveness and social return. The analysis will take into account recent related studies and evaluations, but will also be based on interviews with stakeholders at EU and national level, including representatives of EC, national RD programme authorities, as well as scientific and business/industry networks.

3. Overall Approach

The project will draw upon the following sources of information:

- existing databases (eCorda dataset, publications and patents databases) that will be duly cleaned with regards to frequent errors in organisations names and types.
- an online survey to be conducted at an early project stage that will address all project participants in FP6 IST. The purpose of this survey is to complement existing information from available databases, but, also to obtain a quantitative base to be used further in the analysis.
- 50 in-depth case studies with selected projects and its participants.
- Interviews and focus group meetings with stakeholder from different types of organisations related to IST to strengthen the input data and reduce uncertainties as to In surveys the value where the big challenge is to address and minimise the uncertainties.
- Information sources (Reports, studies, etc.) provided by the European Commission and resulting from literature collection.

The subsequent analyses based on the collected material and findings will help to develop and refine the conclusions based on the findings themselves, e.g. where are the gaps. We may then see areas in which the policies, objectives and different measures can be improved to better address the current challenges and identified gaps.

The more in-depth analysis will be carried out based on the complete data collection, including the 50 case studies, as well as results of 4 focus groups conducted with industrial and academic experts. The more in-depth analysis will first look at the impact at the organisational level to ascertain how the participation in FP6 IST projects has had an impact on the individual organisations' research, innovation, business capacities, capabilities and performance in terms of their networks, knowledge and commercial activities as well as standardisation activities.

Based on the impact at the participant level ,the results will be aggregated to look at the systemic impact on the complete IST field (Module 2) that the FP6 IST projects have had on the overall networks, knowledge and commercialisation within the IST field in Europe. Through the case studies and interviews with both project internal and external stakeholders, the most important spill-over effects will also be identified to outline the perceived benefits and costs for society as a whole. These interviews will also put the projects in their context to identify to what extent the project results would have happened anyway (deadweight), but, also, to quantify the aggregated added value and "Return on Investment". Also negative projects will be factored in as they can have great value in identifying gaps and areas for improvement.

The work is structured around six work packages. In overview, the WP1 - 6 concern the following:

- WP1: Collection and cleaning of data on FP6 IST and project results
- WP2: Criteria development and sample selection
- WP3: Investigation preparation – Interview guides, training material and IT
- WP4: Interviews and elaboration of case studies
- WP5: Analysis and conclusions
- WP6: Project management & coordination.

WP1-WP3, to be conducted in parallel in the first six months of the study, lay the foundation for the analysis, namely to collect and quality assure all needed data on projects and participants, select projects and participants in a representative and balanced way, and prepare the tools for the extensive investigations required by this impact assignment.

Important initial results from this group of WPs are

- the results of the online survey addressing all the FP6 IST participants.
- the selection of projects and stakeholders for further qualitative investigation.

We will then proceed with the conduction of interviews and production of case studies, which is the main objective of WP4. Furthermore 4 workshops will be organised, which will be run as focus group sessions with Programme Stakeholders.

The key results are produced in WP5, according to the objectives as set-out in the Tender Specifications based on the surveys of WP1 and investigations of WP4. After elaborating on the findings and drawings conclusions, we will draw up draft recommendations together with the Commission Services for discussion at a public workshop.

WP6 serves to ensure an efficient coordination of the project, including communication both within the consortium and with the EC, as well as that deliverables and milestones are achieved according to the time plan, shown in Table 1 below.

Table 1: Project time-plan

The project start date is 1 September 2010	Months																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
WP1: Collection & cleaning of data on FP6 IST and related project results	█	█	█	█	█	█													
Activity 1.1: Collect FP6 IST project data and results	█																		
Activity 1.2: Clean the organisational names	█	█																	
Activity 1.3: Correct the organisation type	█	█																	
Activity 1.4: Map the principal investigators in the FP6 IST projects with the research results		█	█	█	█														
Activity 1.5: Structuring the FP6 IST projects and thereto related results to sub domains in IST		█	█	█	█														
Activity 1.6: Online survey for additional data collection				█	█	█													
Activity 1.7: Characterisation of the FP6 IST projects and their participants					█	█													
WP2: Criteria development for sample selection			█	█	█	█													
Activity 2.1: Delimitation of projects within the IST subdomains			█	█	█	█													
Activity 2.2: Selection criteria for project sample			█	█	█	█													
Activity 2.3: Evaluation basis			█	█	█	█													
WP3: Investigation preparation - Questionnaire, case studies and IT	█	█	█	█	█														
Activity 3.1: Initial analysis	█	█	█																
Activity 3.2: Development of questionnaire		█	█	█															
Activity 3.3: Case study templates		█	█	█															
Activity 3.4: Development of IT tool	█	█	█																
Activity 3.5: Design of training module for the team of experts				█	█														
WP4: Interviews and elaboration of case studies						█	█	█	█	█	█	█							
Activity 4.1: Preparation phase to set-up the investigation						█	█												
Activity 4.2: Training the experts team							█												
Activity 4.3: Production of interviews							█	█	█	█	█	█							
Activity 4.4: Production of case studies							█	█	█	█	█	█							
Activity 4.5: Remote peer review									█	█	█	█							
WP5: Analysis and conclusion								█	█	█	█	█	█	█	█	█	█	█	█
Activity 5.1: Participant profiling								█	█	█	█	█	█	█	█	█	█	█	█
Activity 5.2: Analysis of project output, outcome and impact									█	█	█	█	█	█	█	█	█	█	█
Activity 5.3: Systemic and Socio-economic impact											█	█	█	█	█	█	█	█	█
Activity 5.4: Formulation of policy recommendations												█	█	█	█	█	█	█	█
WP6: Project management & coordination	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Workshops Focus Groups									█			█		█			█		█