

## **EURAB Recommendations on Ex Post Impact Assessment**

At its final meeting, EURAB discussed the topic of ex post impact assessment at the Framework Programme project level. In advance of this meeting, a series of questions for discussion, prepared by a small EURAB task force (see Appendix 1), and a discussion paper on the topic, prepared by an independent consultant (see Appendix 2), were circulated to all members of EURAB.

Given the importance of the subject and the limited time available to deal with it, the only option open to EURAB was to prepare this short note and **recommend that the topic of impact assessment be considered afresh early in the lifecycle of the new EURAB.**

Despite the short time available for discussion, EURAB was able to recognise the social and political pressures for accountability and value for money in the field of research spending and consequently welcomes increased efforts to satisfy these demands. To this end, **EURAB recommends an increase in the resources allocated to such efforts.**

Any budgetary increases, however, should be spent wisely. In particular, **EURAB feels that a strong emphasis on the ex-post impact assessment of individual research projects would be ill advised.**

Given the intrinsic uncertainties associated with the practice of scientific research and the recognised difficulties associated with the attribution of long-term socio-economic impacts to particular research projects, **EURAB suggests two alternative emphases,** both worthy of increased support.

**The first is an increased emphasis, within the overall framework adopted for the monitoring and evaluation of the Framework Programmes, on project and programme level assessments of goal attainment and efficiency of implementation.** Moreover, within such an emphasis, particular attention should be paid to the diversity of project types (and associated goals) currently supported by the Framework Programmes, and to the corresponding need for a range of customised studies focusing on topics of particular relevance to individual project types and support mechanisms. For examples, the goals and modes of operation of 'Integrated Projects', 'Networks of Excellence' and the European Research Council are very different and evaluation approaches and techniques have to be modified accordingly.

**In EURAB's view, customised studies focusing on goal attainment and efficiency of implementation would yield valuable lessons for the future conduct of the Framework Programmes** and would have a greater impact on overall programme and project performance than futile efforts to link individual projects with long-term socio-economic impacts.

The second alternative emphasis would be to focus on some of the value-for-money issues that are associated with research spending in general. **EURAB would**

**welcome, for example, greater research efforts to provide the evidence base needed for the setting of R&D and innovation policy targets** such as the 3% R&D investment target set at Barcelona. Providing evidence concerning the benefits and value-added of greater R&D spend at national and European levels lies outside the sphere of ‘programme evaluation’ and the even narrower sphere of ‘ex post project impact assessment’. EURAB is convinced, however, that any increase in funds for impact assessment would be better spent on efforts to improve the evidence base for research policymaking in general rather than on more limited ex post project impact assessments.

## Appendix 1

### EURAB Ex Post Assessment Working Group

#### Questions EURAB May Wish to Address

1. Experts in the field of R&D impact assessment argue that the expected impacts of research are highly uncertain, often intangible, extremely variable in terms of scope, scale and timing and hence exceedingly difficult to quantify. **Does EURAB agree with the inherent limitations of impact assessment and is it prepared to stress this point to the Commission?**
2. Although impacts are difficult to assess, methods that attempt to measure different types of impact have been and continue to be developed. **Does EURAB recognise the need to support the further development and use of such techniques?**
3. The overall level of resources devoted to the monitoring, evaluation and impact assessment of Framework Programme projects, expressed as a percentage of the overall FP budget, is well below the levels typically devoted to these topics at a national level. **What proportion of the overall Framework Programme budget should be devoted to monitoring, evaluation and impact assessment?**
4. All efforts to assess project impacts invariably impose some kind of administrative burden on project participants. If the proportion of spend on monitoring, evaluation and impact assessment is to be increased, **how can the burden on participants be minimised?**
5. Within the context of broad programme evaluations, impact assessment is just one focus amongst many. Others include estimates of goal attainment and efforts to assess the efficiency with which programmes and projects are implemented by the Commission and participants respectively. **What should be the correct focus?** Does EURAB recommend, for example, a focus on impact assessment or a focus on ways in which the implementation of programmes and projects could be improved?
6. The Framework Programme contains many different types of support instrument (project support, infrastructure support, ERA-Nets, support for the ERC etc.), all of which have different impacts. **If impact assessments are to be conducted, which should take priority in terms of both timing and the scale of resources devoted to them?**
7. The governance and organisation of monitoring, evaluation and impact assessment across the Framework Programmes have evolved continuously but are likely to be reviewed in the near future. **What aspects would EURAB like to be taken into account during such a review?**

## **Appendix 2**

### **Reflections on Ex Post Impact Assessment**

#### **EURAB Ex Post Assessment Working Group**

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#### **Introduction**

Within the context of a political environment laying great stress on accountability, value for money and support for results-oriented projects, DG RTD has set up a Working Group on 'Scientific and Technological Audits, Project Reviews and Ex Post Impact Assessments'. The aim of the Working Group is to recommend and establish:

- A policy for the performance of scientific and technological audits at the level of DG RTD;
- A strategy and a procedure for the performance of scientific and technological project reviews and ex post impact assessments.

In turn, Commissioner Janez Potočnik and Director-General José Manuel Silva Rodríguez have asked EURAB for their advice concerning one area covered by the Working Group, namely ex post impact assessments. EURAB's response was to constitute a small group to reflect on the specific themes EURAB might like to explore when considering the topic of ex post impact assessment.

This short paper outlines some of these themes.

#### **Realistic Expectations**

The political pressure for accountability and value for money is totally comprehensible and laudable. The associated generic demand for results-oriented projects and ex post impact assessment across all policy areas is also understandable, but more appropriate in some policy areas than others. It is most appropriate when the risk associated with the production of specific project outputs is low (e.g. the public procurement of a tried and tested piece of machinery). It is less appropriate when this risk is both high and, of necessity, intrinsic to the act of producing these outputs. Scientific research, by its very nature, falls into the latter category, since it necessarily involves an exploration of the unknown. This is particularly so for research at the 'basic' end of the spectrum and for the 'high risk' research encouraged with the context of DG RTD's Framework Programmes.

The demand for results-oriented projects and ex post impact assessment is also often associated with specific demands for quantifiable estimates of value for money and

return on investment. This is realistic when the majority of project outputs are tangible entities with easily ascribed market values (e.g. commercial products), but much less so when the vast majority of outputs are intangible entities such as improvements to knowledge bases, new networks and an enhanced ability to conduct further work. Yet these are precisely the outputs that characterise the majority of research projects, especially collaborative R&D projects such as those conducted within DG RTD's Framework Programmes. Characteristically, only 5-10% of such projects lead directly to commercial products within a year or two of completion. Many subsequently contribute to the future production of new products, processes and services, but often many years downstream, via a plethora of indirect routes and only after being complemented by the results of a multitude of other research projects.

The very nature of research, therefore, means that demands for results-oriented projects and ex post impact assessment are not easily satisfied. A corollary is that expectations in this sphere have to be tempered by realism.

*One potential focus for EURAB, therefore, would be to explore the most appropriate ways of raising awareness at the highest political and bureaucratic levels of the very real limits that the nature of research places on the generic demand for results-oriented projects and ex post impact assessment.*

### **Evaluation Approaches**

Even though the ex post impact assessment of research projects is complicated by the intangible nature of many project outcomes (where even 'failed' projects can have positive impacts on collective knowledge pools), the field of research impact assessment has become increasingly professionalised over the last twenty years and many techniques have been evolved to assess research impacts. These range from macro-level correlations between national R&D expenditure and macroeconomic indicators, such as GDP or national productivity measures, to detailed micro-level cost-benefit studies of all the costs associated with both the research and production of isolated techniques or products (e.g. pharmaceutical drugs) and the economic benefits associated with their application or use (e.g. the value of lives saved or employment losses forestalled via the use of a particular drug).

Unfortunately, none of these techniques are particularly relevant to the ex post assessment of whole research programmes, where the enormous cost of detailed micro-level case studies prevents their use to assess the aggregate impacts of the hundreds, if not thousands, of research projects conducted within the context of initiatives as large as the Framework Programme; and the low ratio of Framework Programme spend to overall EU R&D spend also pre-empts econometric attempts to correlate programme spend with EU level indicators of macroeconomic performance.

Even in this field, however, experts in the field have developed both standardised and innovative ways of mapping the nature and extent of impacts on the knowledge and networking capacities of the research teams involved in projects (so-called 'first circle' impacts); on the exploitation capacities of the organisations involved in projects, especially firms ('second circle' impacts on innovation capacity and commercial performance); and, to a more limited extent, a range of 'third circle'

impacts on the broader socio-economic environment, including impacts on policy development and the regulatory activities.

***In such a context, there is little overt need for EURAB to become embroiled in discussions of a methodological nature – unless, of course, individual members of EURAB have extensive experience in ex post impact assessment.***

### **Impact Assessment Topics**

EURAB could play a valuable role, however, in the identification of important topics to be covered by ex post impact assessments and by programme evaluations in general. Over the course of the last twenty years, the Framework Programmes have evolved from an instrument designed almost solely to support collaborative R&D projects of a fairly straightforward nature to a much more complex set of instruments supporting not only ‘conventional’ collaborative research projects but also a whole host of other initiatives. These include support for the development of scientific and technological infrastructures, the establishment of technology platforms, the formation of ERA-Nets and the mobilisation of venture capital for research. Significant proportions of overall spend also support efforts to improve human mobility, to reconfigure the European Research Area (ERA) and, via the Open Method of Coordination (OMC), to stimulate the development of coherent responses by Member States to EU-wide challenges. Recent radical developments also include the establishment of the European Research Council and support for the European Institute of Technology.

In such a context, ex ante impact assessment has itself to adapt and evolve, moving away from the simple assessment of R&D project outputs and outcomes and towards a series of assessments of a heterogeneous policy instruments, each demanding a different plan of attack and a customised methodology.

***EURAB could play a valuable role not only in the identification of topics and schemes that would benefit from ex post impact assessments, but also in terms of offering advice on the priority that should be accorded to each of them within the complex evaluation frameworks and agendas the Commission will need to establish in order to manage such a diverse set of activities.***

### **Evaluation Issues**

EURAB may also consider offering advice on the priority associated with the foci of the Commission’s evaluative efforts. Typically, evaluations of R&D programmes tackle a range of distinct evaluation ‘issues’. These include effectiveness of goal attainment; the efficiency with which programmes are implemented; the relevance of programme goals and modes of implementation to actual needs and the challenges confronting policymakers; the degree of additionality or added value associated with programmes; concordance with concepts such as (in the EU context) subsidiarity; and, naturally, impact assessment (which includes a focus on unexpected outcomes as well as those envisaged or embodied in programme goals).

Over the last twenty years the primary focus of R&D programme evaluations has varied over time and space. In the mid 1980s, the general call was for a focus on

impact assessments and value added. During the 1990s there was a shift towards a focus on programme efficiency as the policy community realised that insights into how programmes could be improved was more advantageous than efforts to quantify impacts. In the current decade, political priorities appear to have swung once more to a focus on ex post impact assessment.

***EURAB may usefully consider advising on the overall balance of evaluation efforts and the relative emphasis on different evaluation ‘issues’.***

## **Resources**

One of the concerns underpinning the current political interest in ex post impact assessment is the concern that not enough is being done in this area. This is certainly the opinion of the European Court of Auditors, which is just about to publish the conclusions of an extensive review of the evaluation activities of DG RTD.

Members of the professional evaluation community in Europe typically advocate that approximately 1% of a national R&D programme’s budget should be reserved for monitoring and evaluation, though in practice this figure is often nearer to 0.5%. For the Framework Programmes, however, this figure drops to about 0.15%.

In absolute terms, this is still a significant amount of money, but is it enough to fund the extensive and varied work programme that will be needed to ensure that all the impacts associated with the many variegated parts of the Framework Programme are adequately assessed? Is it enough to fund a programme of research into the development of the novel evaluation methodologies that may be needed to assess programme impacts? Is it enough to ensure that the monitoring arrangements in place for Framework projects are capable of systematically collecting all the vital baseline data needed to establish whether participation in projects really does ‘make a difference’?

Finally, there is also the issue of opportunity cost. For every voice advocating that more money should be spent on evaluation and impact assessment, another can be found arguing that every euro spent on evaluation is one euro less spent on scientific research. Any discussion of evaluation budgets has to navigate these choppy waters.

***Given its influential position, EURAB could make a valuable contribution to the debate concerning the appropriate scale of the resources allocated to evaluation and impact assessment.***

## **Monitoring Data Needs**

The Commission is continually attempting to simplify administrative procedures and lighten the administrative burden on participants in the Framework Programme, often in response to the direct pleas of participants themselves. At the same time, there is an increasing need, from an ex post impact assessment perspective, for the systematic collection of both baseline data characterising participants’ involvement in the programme and regularly updated monitoring data on project progress and achievements, particularly ‘end-of-term’ data.

To be effective, all monitoring systems have to be ‘light’. Even when this is the case, however, participants are often extremely resistant to the provision of even minimal amounts of relevant data.

*EURAB could consider how best to persuade participants of the collective good associated with the provision of data relevant to the effective conduct of monitoring, evaluation and impact assessment activities.*

## **Governance and Organisation**

Historically, the monitoring, evaluation and impact assessment activities of DG RTD have evolved from the relatively ad hoc conduct of a limited number of evaluations of individual Specific Programmes and the conduct of an even more limited number of whole Framework Programme evaluations, which was the situation prior to 1994, to the more systematic coverage of all activities within an over-arching framework for evaluation post 1994. Before this time, most evaluations were ad hoc and involved appraisals by panels of senior representatives of the RTD community. Post 1994, a scheme was implemented which involved the establishment of annual Monitoring Panels for Specific Programmes and the assessment, every four years, of activities spanning the previous five years, firstly within all Specific Programmes, and secondly within the Framework Programme as a whole (known as the Five-Year Assessment scheme). In this scheme, panels of experts were supplemented by coordinated studies and surveys designed to feed into the deliberations of the panels, plus the continued use of ad hoc studies initiated separately by the Specific Programmes themselves.

This system was overhauled and streamlined post-2000. Complementary studies as inputs to panels were enhanced and some of the more baroque elements of the system curtailed in order to make the system as a whole lighter, more manageable and more effective. Some of the ad hoc studies instigated by individual Specific Programmes also became even more extensive and sophisticated, though – regrettably – this was not the case for all Specific Programmes.

The current system is now also likely to be overhauled as a consequence of the high political interest demonstrated by the setting up of the Working Group on ‘Scientific and Technological Audits, Project Reviews and Ex Post Impact Assessments’ and the forthcoming publication of the report of the European Court of Auditors. Key issues of governance and organisation that will need to be addressed include:

- The balance struck between the independence of Specific Programmes to continue to conduct their own ad hoc evaluations and impact assessments and the organisation of a comprehensive evaluation framework;
- The need to ensure some form of internal coordination in order to minimise the ‘evaluation burden’ on participants (e.g. requests from different sources to respond to questionnaires of a very similar nature);
- The balance struck between the use of panels and reliance on supporting studies;
- The composition of expert panels, in terms of a balance between senior representatives of the scientific community and professional programme evaluators;

- The radical suggestion that evaluation and impact assessment activities might best be orchestrated by an agency independent of DG RTD;
- The best means of organising and orchestrating the evaluation activities of both the Commission and individual Member States if the overall impact of the Framework Programmes on the structure and organisation of research activities in Europe and attainment of the goal of a reconfigured ERA is to be assessed;
- The establishment of quality control mechanisms for evaluations and impact assessments;
- The most efficient ways of ensuring that the results of evaluations and impact assessments not only inform programme management about ways of improving programme implementation but also feed through into subsequent strategy development and policy formulation.

*All of these issues deserve to be discussed at the highest possible levels. Given EURAB's advisory role and its status as the representative voice of the research community, its views on these issues could be crucial to the development of an acceptable framework for the organisation and governance of the Commission's evaluation and impact assessment activities.*