ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Summary of the TIP Workshop on Impact Assessment

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Objectives

- Why impact assessment?
- Which methods can be used to assess the impacts of public R&D?

- In which context/situations do these methods perform better?

- Which data do we have / need for which methodologies ?

Impact Assessment: state of the art

- 1) To assess the contribution of public R&D to achieving public objectives
- 2) Measuring impacts is neither straightforward nor easy task
- 3) Importance of defining impacts (nature, scope, timing)
- 4) New practices emerging
- 5) Choice of methodology not universal but context specific

Efficiency of public support to Biz R&D

-Difference in efficiency of public R&D support across countries

– There are determining factors (Framework conditions, IPRs, etc)

– Use of different methods: composite, performance indicators, and DEA

– Result: Complimentarily between public and private R&D

– Policy Implication: Not necessarily more public support to biz. R&D but change at margins

– Model relies on input oriented methodology, but the methodology could be broadened

Macro-econometric model to assess impact of R&D on economic growth

- Capitalisation of (private and public) R&D investment
- Finds that public R&D investment is one of the main sources of longer term economic growth relative to other types of public intervention
- Potential caveats: assumptions for depreciation, interest rates
- Need to expand, include global R&D flows

Impact assessment at NSF

- An approach rather than a methodology. Programme to develop data and methodology
- Linking bodies of knowledge to assess interdisciplinary processes
- Focus on organisations and networks
- Bottom up and data intensive
- BUT need to consider system effects and the changing role of innovation (rise of services)
- Results expected in 3 years

Ex-post modelling and case study analysis

- Impact analysis in reverse , from product/invention to research funding
- Longer-time horizons required
- Problems of selection bias (assessing successful innovations only?)
- Attribution problems (internal vs. external research)

Social effect modelling

- Upstream approach, impact on society then impact on companies then impact on research then importance of funding!
- Interviews, advisory group, etc
- Impact analysis is time consuming and costly , and depend on expertise
- Need for competence of evaluators (specific field and evaluation), look outside your own your country!
- Communicating results in a way that policy makers can understand is key
- Attribution remains a challenge

Quantitative model for ex ante impact assessment

- Ex ante effects of FP 7 on competitiveness, growth and employment
- Take into account new growth theories
- Hypothesis driven [crowding in depends on network effects, allocation decisions, RTD spending and (positive)spill-overs]
- Scenarios of FP 7 funding tested; positive leverage effects but differ on employment and GDP
- Limitations of model: very large # variables and assumptions, focus on subsidies, time-frame contingent

Policy round-table : Options to go forward?

- Interagency work at NSF , data development
- DEMETER
  - develop methods and tools for ex ante assessment of EU, National and sectoral policies
  - link RTD and Human K
- NESTI (ongoing) work on measurement
  - Analysis of GBOARD
  - Tax incentives
  - Foreign funding of R&D

Policy round-table : Options to go forward?

- NESTI (new initiatives)
  - Commercialising R&D
  - Measuring R&D and impact in public and semi-public organisations
  - Innovation indicators
  - Flows of knowledge from publicly funded research organisations