



Workshop on “Assessing the Impacts of Public Research Systems”

Organisers: FCT and OECD

Date: 27-28 April 2015

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About the Workshop

The workshop focused on the contributions of public research to innovation, uncovering gaps in our knowledge about the impacts of public research, discussing the variegated outcomes from impact assessment exercises and setting out a research agenda for the “impact assessment” module of the TIP/CSTP Knowledge Triangle (KT) Project. The workshop follows on the heels of workshops held by the CSTP, jointly with France Stratégie, in Paris in October 2014, by TIP/RIHR in Tallinn in May 2014, and by NESTA in conjunction with the OECD in London in December 2013.

Objectives

The aim of this workshop was to bring together practitioners, academics and policy makers to:

1. Exchange national experiences across two themes:
 - i. questions policy makers have with regard to the impact of public research and its policies on innovation;
 - ii. outcomes of national studies on the impacts of public research and its policies;
2. Reflect on impact assessment practices and their effectiveness in support of policymaking. This includes analysing lessons learned from good examples of integrating advice (such as practices to enhance policy learning).

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3. Organise the work of the “impact assessment” module of the KT project and discuss country contributions in the process.

Agenda

27 April 2015

Session 1: 9h00 – 10h00

Welcoming and Introduction to the Meeting

The opening session will set the agenda and provide perspectives on how public research and its policies can best support innovation in Portugal.

Opening Speeches

- **Leonor Parreira**, Secretary of State of Science, Portugal
- **Arménia Carrondo**, President, Portuguese Science and Technology Foundation (FCT)
- **Dominique Guellec**, Head of Division, Science and Technology Policy Division, OECD

Introduction to the Workshop

- **Luísa Henriques**, Coordinator, Studies and Strategy Office, Portuguese Science and Technology Foundation (FCT)
- **Caroline Paunov**, Senior Economist, Science and Technology Policy Division, OECD

Session 2: 10h00 – 11h00

Open Questions on Impacts of Public Research

Policy makers are faced with multiple questions when they design policies regarding public research institutions and universities. Issues to be addressed include the following:

- *What are the current policy questions regarding the impact of public research on innovation? Which questions are policy makers asked most often?*
- *Where are gaps in our knowledge regarding public research and its contributions to innovation? Which of these questions should be addressed by future impact assessment studies, including cross-country analyses?*

Organiser: **Richard Scott**, Policy Analyst, Science and Technology Policy Division, OECD

Small Group Discussions

Coffee Break



Session 3: 11h30 – 13h00

What Do We Know about Impacts from National Research Assessments?

National evaluations of entire research systems and broad policy areas provide a first source of information on the state of public research, information on the nature of policies implemented, as well as an overview of what policies work better than others. The session will focus on insights from these evaluations and cover the following:

- *What do we know from international evaluations as to where public research has the biggest impacts on innovation? What policies were most successful in supporting universities' and public research institutes' contributions?*
- *How have the design and implementation of research policies benefitted from impact assessment exercises? How have assessment exercises informed the policymaking process?*

Chair: **Ricardo Mamede**, Assistant Professor, ISCTE - University Institute of Lisbon

Speakers:

- **Eeva-Karoliina Kaunismaa**, DG RTD, European Commission
- **Matteo Razzanelli**, Science Europe
- **Seogwon Hwang**, STEPI, Korea
- **Ed Woolley**, Department for Business, Innovation & Skills, United Kingdom

Session 4: 14h30 – 16h00

Perspectives from Different Evaluation Exercises

Case studies and evaluations of specific programmes or institutions can provide insights on specific mechanisms how public research affects innovation. The session will focus on case studies of programme evaluations – spanning the range of quantitative to qualitative assessments – and address the following questions:

- *What do the best case studies teach us about the mechanisms that got public research to support innovation?*
- *What do we know about the impacts of specific policy instruments? Are there any new policy approaches that have successfully strengthened impacts of public research?*

Chair: **Caroline Paunov**, Senior Economist, Science and Technology Policy Division, OECD

Speakers

- **Reinhilde Veugelers**, KU Leuven
- **Dr. Stephanie Daimer**, Competence Center Policy and Regions, Fraunhofer Institute for Systems and Innovation Research (ISI) and **Michael Rothgang**, Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany
- **Shinichi Akaike**, Ministry of Education, Culture, Sports, Science & Technology (MEXT), Japan
- **Sander J. C. Kes**, Dutch Ministry of Economic Affairs



Coffee Break

Session 5: 16h30 – 18h00

Impact Assessments and National Innovation Policy Design

Impact assessments can provide important insights on what works and what does not work, offering the potential for optimising policy design. Yet impact assessments have not in all cases played this role. The session will cover the following questions:

- *What is the role of impact assessment practices in national research systems?*
- *Which institutional factors may hinder the capacity of evaluation exercises to adequately respond to the most relevant policy questions?*
- *What governance models can enhance the effectiveness of impact evaluations for evidence-based policy design?*

Chair: **Mario Cervantes**, Senior Policy Analyst, Science and Technology Policy Division, OECD
Speakers:

- **Jane Bjørn Vedel**, Copenhagen Business School, Denmark
- **Philippe Laredo**, Université Paris-Est/ University of Manchester
- **Ricardo Mamede**, ISCTE, Portugal, and **Luísa Henriques**, FCT, Portugal
- **Ian Hughes**, Department of Jobs, Enterprise & Innovation, Ireland (by phone)
- **Dirk Meissner**, Higher School of Economics, Russian Federation



28 April 2015

Session 6: 9h00 – 12h30

Defining Next Steps for the Impact Assessment Module of the Knowledge Triangle Project

The session will focus on defining the proposed activities of the impact assessment module. The discussion will address specific objectives of three strands of work (described below), outline how the work will be undertaken and propose country contributions.

Chair: **Dominique Guellec**

1. Discussion of the Impact Assessment Module

Caroline Paunov will present each strand of work and feedback received. The presentations will be followed by an open discussion.

- ***Identifying priorities for quantitative cross-country analysis***
9h00-9h45
- ***Creating indicators of public research policies***
9h45-10h30

Coffee Break

- ***Identifying “best practice” in evaluation & the Community of Practice (CoP)***
10h50-11h30

2. Implications for the Overall Knowledge Triangle Project

11h30 -12h30

- **Mario Cervantes** and **Richard Scott**, Implications from the Workshop for the Overall KT Project
- Open Discussion

Closing Session: 12h30 - 12h40



Summary of Main Outcomes


Questions policy makers have that require further impact assessment analysis were mentioned:

- **Impact assessment has two dimensions** measuring the effects i) of public research or science on outcomes and ii) of public research policies on both public research and its impacts. Outcomes of interest are productivity, economic growth and employment but also various social variables. The focus of impact assessments should not only be on short- but also on long-term effects.
- **It is critical to isolate impacts of specific policies and to know what specific mechanisms produced what specific impacts. At the same time, identifying system-wide effects of policy interventions matters**, i.e. how adoption of public research policies affects outcomes such as employment due to interactions with complementary policies and as a result of specific framework conditions (incl. e.g. labour market conditions). Most specific programme evaluations provide little evidence on these questions.
- **Political economy factors are also important** and impact assessment that produces robust evidence on the contributions of public research can help secure funding. Predicting impacts at an early stage is often a key policy requirement. At the same time, ex post evaluations can help provide more robust evidence for longer-term factors.
- **The data commonly used have been criticised as providing a limited perspective, with strong focus on publication outcomes** and little on education or other impacts. The question that arises is how to best use the available data and tap into new sources (e.g. Internet sources) to evaluate performance.

Two specific themes discussed include:

- **Excellence and quality of research.** While this is a common theme for public research systems in many countries, there are some differences and at times uncertainties as to how excellence is defined. The implications of skewed impact distribution both among and within institutions in terms of publications, patents, etc., requires careful attention for optimal policy design.
- **Knowledge transfer mechanisms.** The question of what feedback loops, timelines and diverse factors drive the overall diffusion of scientific knowledge is a major issue when it comes to strengthening socio-economic research impacts. The international dimension of knowledge diffusion and production is also important and of research conducted elsewhere depend on the permeability of national or even regional boundaries. Such barriers affect whether regional universities' research is critical to build regional employment or whether international research can be equally useful as long as regions' universities ensure the skills base is adequate.

These themes have been integrated in the proposed quantitative analysis of the impact assessment work.



The following points were raised regarding the role of impact assessment and evaluation for policy:


- **Even where evaluations are undertaken, there are no in-built feedback mechanisms from impact assessment and evaluation to policy.** Specific institutional settings have to be in place. Training civil servants responsible to deal with evaluations will be among those measures.
- **There are possible conflicts of interest between evaluators and their projects,** particularly in contexts where there is a smaller and less experienced evaluation community. Creating effective evaluation networks, including cross-country linkages, can be one way to enhance learning.
- **Researchers and institutions performance evaluation schemes may create undesired impacts if they set incentives inadequately.** The strong focus on publication outputs in particular has been discussed intensively as a possible constraining factor.
- **Science and innovation (and education) ministries are often organised differently in countries.** The OECD has an opportunity to bring these policy communities together to help and develop joint processes when it comes to evaluate system-wide effects.

National and international perspectives on specific programmes and approaches to impact assessment and evaluation were also provided. This included presentations of the German Spitzencluster and translational research programme and the Dutch Topconsortia initiative. An overview of an econometric study of industry-university collaboration on firms' performance in the UK was given. The new evaluation framework of Innovation Fund Denmark was also presented. The specific challenges encountered with regards to conducting impact assessment and evaluation was another theme. Specific examples for Portugal and Japan were given. Moreover, presentations were given on forthcoming impact assessment work in Korea and of the role of impact assessment in the future national innovation strategy of Ireland.

Background on the Workshop Themes

After a long period of implementation, evaluation remains a core focus, which might be traced back to the late 1960s when the CSTP/OECD started to evaluate science policies. Assessing the impacts of policy is the more so important in a context of increasingly tight public budgets. Research evaluation practices developed in a core group of countries with institutionalised practices where structures are part of the policy-making. They feed into the policy and programme formulation and support informed policy decision on funding schemes. The scope of evaluation activities has widened, covering individuals and their trajectories, organizations, networks, and more recently eco-systems and policy-mixes, which requires analysis of outcomes resulting from multiple instruments interactions. The scope includes analysis of the impact of policies on public research institutions.

Several types of evaluation exist across countries: For example, ex-post evaluation is mandatory in some countries when a programme is terminated. Some countries require that an ex-ante impact assessment/evaluation is carried out to support programme and policy design. A reduced number of



countries even go further and perform longer-term evaluation aiming at measuring economic and other social effects of programmes or organisations. Such analysis requires extensive use of data and the necessary time lag in order to apply econometric approaches and implement counterfactual analysis.

Examples of early adopter countries are the United Kingdom, France, Canada, Austria, the Nordic countries and Switzerland. Many countries, however, tend to have a less systematic approach to evaluation. This is the case for the Southern European ‘Mediterranean’ Countries, where evaluation activities are mainly linked to the regulations for the use of the European Structural Funds. For this group of countries and other members of the OECD research evaluation is not yet as well established and as widely diffused. Moreover the research evaluation community that supports the activity is often small. In many countries, benefits can be had from developing stronger competences and enlarging the knowledge base, through learning and adoption of good examples.

Background on the Knowledge Triangle Project

The work on impact assessment will contribute to the CSTP-TIP Knowledge Triangle project. At its June 2014 meeting, the TIP held a brainstorming discussion on the Knowledge Triangle. The project’s terms of reference were further defined at the December 2014 TIP meeting and the CSTP meeting of March 2015. The project will deal with the following issues:

- the role of higher education in innovation, in particular the role of entrepreneurial education and researcher training policies;
- incentives for actors in the Knowledge Triangle, including for researchers;
- the autonomy of universities in global innovation systems;
- the role of government as both co-ordinator and actor;
- new channels for collaboration between university and society;
- the role of the business sector in local innovation eco-systems;
- incentives for institutions to take on new roles and missions;
- policies to link the different functions of research, education and innovation.

The project will bring together the common themes from these suggestions. In terms of deliverables, delegates suggested focusing on good practices. The project is organised around four modules: i) higher education institutions (HEIs) in the Knowledge Triangle, ii) new financing, co-operation and governance arrangements, iii) place-based policies in support of the Knowledge Triangle and iv) impact assessment.

Contacts

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