

6CP workshop: New economic ground for innovation policy

Bilbao, 14 September 2009

The issue

The current economic crisis and a number of other longer term global issues like climate change, energy and food problems have raised the interest in innovation, not only as a way to growth and competitiveness but also as a means to resolve social issues. This raises new questions about the rationales on which innovation policies are being based.


Today decisions about overall resource allocation are mostly guided by a narrow macroeconomic understanding, while a broader micro-based perspective is – at best – brought to bear on how resources allocated to innovation policy are used.

Two main approaches to innovation are used by economic policymakers. The first one, which is mainly being used by the macroeconomic policy community, places innovation within a neoclassical framework often using New Growth Theory. Broadly speaking new knowledge is seen as the product of R&D. The stock of technology is entered into a production function as an independent variable using either the stock of R&D or the stock of patents as a proxy. This approach ignores the many aspects of technology and innovation which case studies have shown to be important. It treats firms as atomic particles which make independent decisions based only on market signals. It assumes optimizing rational behaviour and perfect information, is based on equilibrium thinking, etc.

The alternative approach treats innovation as the outcome of the interaction between a set of influences which can only be properly considered in a systems approach. New knowledge and technology result from a range of activities and sources of which R&D is only one. Knowledge is both an input and an output to the innovation process, may be codified or tacit, and often embedded in and/or specific to people or organizations. The strategies and capabilities of firms have an independent influence on the nature and outcome of innovation and customers play an important role.

The Directorate of Science Technology and Industry (DSTI) of the OECD has made major contributions to expand our understanding of innovation and the development of the Innovation Systems approach. However the treatment of innovation by OECD as a whole has often been led by the Economics and Statistics Directorate which is still guided by a macroeconomic interpretation.

We believe the empirical evidence is strong enough to make the case that the neo-classical macro-economic framework cannot provide a satisfactory treatment of innovation, even with allowance for 'market failure'. Markets are



still very important but markets and economic agents do not operate in the way the standard neoclassical model assumes. The financial crisis has exposed the weakness of this neoclassical approach, even when dealing with those issues which it was designed to analyse.

What are directions for the future?

The issue is not new: In 1996, Keith Pavitt addressed it under the ironic subtitle “Where are the increasing returns to economic research?” But neither will it go away: The academic community resolves differences by forming separate schools of thought, but as policy advisors we have to make our case in a way which bridges these differences.

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In the innovation policy community there is a sort of consensus that innovation systems, learning, path dependence, etc. matter. This is, however, based mainly on what Nathan Rosenberg called “appreciative theorizing”, mostly qualitative understandings from a number of different research fields like economic history, sociology, etc. These give us pieces of a puzzle but do not allow us to analyse the macro implications in a more formal manner.

The work of Paul Romer and New Growth Theory, starting with the key role of investing in knowledge, are currently seen as the “state-of-the-art” in macroeconomic thinking on the issue, and even this is not generally accepted by economists. But, as Jan Fagerberg has pointed out, NGT cannot explain why countries differ in their ability to translate new knowledge into economic growth. These differences – and what causes them – are of course the lifeblood for us as policymakers and policy analysts. And they directly affect the environments in which companies and/or entrepreneurs make their decisions.

There are interesting lines of thinking about innovation in “behavioral economics” but so far they have mostly looked at issues like individual consumer behavior, and not so much at the strategic behavior of firms, etc. Equally interesting theorizing about “learning systems” has only just started.


These are good reasons to try to find out in what directions we need to look for new concepts and new rationales for innovation policy making, different rationales which adequately address non-linear networked models of innovation as collective search and learning processes.

6CP workshop

The 6 Countries Program organises a workshop in which these questions will be explored with the aim to come up with a better and shared feeling for the directions in which we have to look for renewing the economic foundations of innovation policy.

The issues to be addressed in the 6CP workshop are:

1. To identify the consequences of the knowledge gaps between neoclassical theory and related policy rationales (e.g. market failure) on the one hand, and



what we know from micro-studies, evolutionary and institutional economy, etc. on the other hand.

2. Explore how this could lead to new concepts and rationales for innovation policy (starting from the broad concept of “learning society” as Lundvall and others have pointed at) which may reconcile both the concerns of innovation researchers and those of economists dealing with public finance and economic policy.

The outcome of the workshop should be a list of challenges:

- 1) Issues which are very often not addressed in economic research, but which are important to policymakers.
- 2) Issues where we think we can provide evidence that neoclassic analysis leads us to wrong policy conclusions.

The outcomes of the workshop should inspire both policy makers (where are new rationales to be found?) as well as researchers (where are the major knowledge gaps?).

The format of the workshop

It will be a one day workshop, with relatively few invited presentations (5-6) and a lot of room for discussion (to be inspired by prepared comments on the presentations). The presentations are not based on formal academic papers but on position papers of about 5-8 pages (these will be web-published together with a report on the discussions). On each position paper one or two participants will be asked to prepare comments and topics for further discussion.

The number of participants will be strictly maximized at 35 in order to allow for a round table setting.

When, where?

The workshop will take place on 14 September (9.00 – 18.00) in Bilbao and will start with a diner (offered by Tecnalia and the Basque Country) for all participants on Sunday evening 13th at 21.00.



Draft workshop agenda

Sunday 13 September (Hotel Husa Jardines de Albia, Bilbao):

- 19.00h 6CP Steering Committee meeting (members only)
- 21.00h Dinner for all participants hosted by Tecnalía and the Basque Country

Monday 14 September:

- 08.30 Transfer to Tecnalía Labein premises*
- Chair: *Wolfgang Polt* (Joanneum Research, 6CP Chairman)
- 09.00h Welcome and opening speeches
- Joseba Jaureguizar* (General Manager of Tecnalía): The Basque Innovation System
- Pedro Hernández* (Basque Government): Economic transformation and innovation policy: the Basque experience
- 09.30h *John Barber*: setting the scene
- Discussant: *Cesar Santos* (EC DG Entr)
- 10.15h *Jan Fagerberg* (University of Oslo): New foundations for innovation policy: research directions
- Discussant: *Torsti Loikkanen* (VTT)
- 11.00h Coffeebreak
- 11.30h *Alasdair Reed* (Technopolis): Lessons from INNO-policy Trendchart
- Discussant: *Begoña Sánchez* (Tecnalía)
- 12.15h *Petri Peltonen* (Ministry of Employment and the Economy): Lessons from the 1990s recession in Finland
- Discussant: *Marcel Klein* (Senter/Novem)
- 13.00h Lunch

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- 14.30h *Marko Hekkert* (University Utrecht): Innovation functions to support innovation policies
- Discussant: *Jos Leijten* (JIIP/TNO)
- 15.15h *Henri Etzkovitz*: Univ. Newcastle uT: Economic impacts of R&D and Innovation policies
- Discussant: *Jochen Markard* (Eawag)
- 16.00h Break
- 16.30h *Dirk Pilat* (OECD): Future of innovation policy: a few scenarios
- Discussant: *Steffen Kinkel* (FhG ISI)
- 17.15h *Lennart Elg* (VINNOVA) and participants: lessons learned
- 18.00h Closing by the chairman

Informal evening (for those leaving the next day).

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About the Six Countries Programme

The Six Countries Programme (6CP) is an international network of public policy-makers, business leaders, academics, and other experts working in the field of innovation. The members are meeting periodically to discuss the latest developments in innovation research, policy and practice.

Established in 1975, the 6CP provides a platform for open discussion and analysis of innovation policy issues and exchanges of experiences and best practices in the field. Its primary objectives are to contribute to a broader understanding of innovation processes and their impact on economies and societies, to anticipate future needs, and to foster cooperation among policy researchers and decision-makers from both government and business sectors.

(www.6CP.net)

Overview of 5 years 6CP workshops and conferences

- 2008 [*Non-technical Innovations - Definition, Measurement & Policy Implications \(Karlsruhe, 16-17 October 2007\)*](#)
[*Les Grands Projets: Still Important for Innovation Opportunities? \(Brussels, 19-20 November 2007\)*](#)
- 2007 [*From innovation policy research to local policy implementation: strategic policy intelligence guiding concrete innovation support measures \(Dublin, 19-20 April 2007\)*](#)
- 2006 [*Going global: the challenges for knowledge-based economies \(Helsinki, 21-22 September 2006\)*](#)
[*Innovation policy learning: change in thinking - change in doing? \(Stockholm, 23-24 May 2006\)*](#)
- 2005 [*Innovation and procurement \(Manchester, 16 November 2005\)*](#)
[*The future of research: new players, roles and strategies \(Rotterdam, 21-22 April 2005\)*](#)
- 2004 [*Linking defence and security R&D to innovation: the challenge ahead \(Brussels, 19 November 2004\)*](#)
[*Internationalisation of R&D: recent trends and arising policy challenges for the future \(Helsinki, 17-18 June 2004\)*](#)
- 2003 [*Crossing borders: venturing into the European research area \(Austria & Hungary, 30-31 October 2003\)*](#)
[*Turning new ideas into wealth: SMEs in the era of disruptive technologies \(Vancouver, June 5-6\)*](#)

