



UNITED NATIONS
UNIVERSITY

UNU-MERIT

Why broaden the definition of innovation?

Fred Gault, UNU-MERIT, the Netherlands

Fostering Innovation and Entrepreneurship in the Euro Area

Session 2: Advances in Measurement of Innovation and Entrepreneurship: Policy Implications and Potential for Progress

13-14 March, 2017, Frankfurt am Main, Germany

Outline

- If statistical measurement is to support
 - the development of innovation policy
 - the monitoring and evaluation of implemented innovation policy
- then
 - measurement of innovation must be made in *all economic sectors*
- Measurement of innovation in an economic sector includes measurement of the *linkages* to all other economic sectors
- The policy implications of the broadening of the definition of innovation

Economic sectors and systems

- Sectors

- System of National Accounts (SNA 2008)

- Corporations
 - General government
Plus Public enterprises
 - Household
 - Non-profit institutions serving households
 - Rest of world

Business sector

Government sector

Public sector

Household sector

NPISH sector

ROW sector

- Systems

- Actors
 - Activities
 - Linkages
 - Outcomes (jobs and growth?)
 - Impacts (wellbeing?)

(“Think systems, not technologies” www.nap.edu/24699)

Innovation for measurement purposes since 2005

- An innovation is the *implementation* of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations (OECD/Eurostat 2005, para 146)
- A common feature of an innovation is that it must have been implemented. A new or improved product is implemented when it is *introduced on the market*. New processes, marketing methods or organisational methods are implemented when they are brought into actual use in the firm's operations (OECD/Eurostat 2005, para 150)

A generalised definition

- An *innovation* is the implementation of a new or significantly **changed** product or process. A product is a good or a service. Process includes production or delivery, organisation, or marketing processes.
- A new or significantly changed product is *implemented* when it is **made available to potential users**. New or significantly changed processes are implemented when they are brought into actual use in the operation of the institutional unit, **as part of making product available to potential users**.
- Consequence
 - Firms, public sector institutions and households that make new or significantly changed products available to potential users, at no cost as well as at economically significant prices, are innovative institutions
 - This could lead to two sets of innovation statistics – zero cost and economically significant cost
 - More surveys

Outcomes


- Internationally comparable definitions of innovation for all SNA sectors
- Support for policy development in the Public and Business sector, and for monitoring and evaluation of implemented policies
- Stimulus for more analysis of innovation in all SNA sectors *and the interactions between them*
 - *Linkages within sectors and between institutions in different sectors become new indicators (in addition to being the basis for non-linearity of innovation systems)*

Restricted innovation

Are intentions realised?

- So far the focus has been on inferring the activity of innovation using internationally agreed definitions to support measurement
- Policy interest goes beyond just innovation to consider
 - Sustainable, green, responsible, pro-poor, inclusive ... innovation
 - Jobs and growth, global challenges, ...
- Impact of technologies and practices
 - AI, the Cloud, the digital economy, mutual distributed ledgers, new materials, robots, ...
- To measure this 'restricted' innovation requires additional surveys, including social surveys, conducted at different times
- Additional time scales require a longer term measurement perspective

Conclusion

- Innovation happens in all economic sectors
- Definitions of innovation are not standard outside of the Business sector
- Much work has been done on public sector and household innovation
 - Definitions need to be standardised
 - Broadening the definition is a step in this direction
- Policy in all sectors can impose restrictions on the definitions of innovation and this must be accommodated by the measurement community
- Measuring innovation in all sectors and the linkages between sectors supports analysis of the innovation system and provides a basis for policy development and for monitoring and evaluating implemented policy
- More 

www.oecd.org/sti/008%20-%20BS3%202016%20GAULT%20Extending%20the%20measurement%20of%20innovation%20.pdf