

Draft abstracts for Conference on Advancing the Study of Innovation and Globalization in Organizations (ASIGO), submitted by UK Office for National Statistics

We have two pieces of recent work on innovation and organisation investment (one still being completed) that you might like to consider. One is a UK study, by the ONS economist team and Professor Jonathan Haskel of Imperial College Business School to test approaches to measuring firm level investment in intangible assets associated with innovation. The other is a 13 country study, funded by Eurostat, with Professor Eric Bartelsman, of Free University of Amsterdam, to develop firm level linked data, and industry aggregate approaches to assessing impact of ICT investment and use, and its interaction with other complementary inputs to business change.

2) ICT impact assessment linking data across sources and countries

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This Eurostat funded project involving 13 countries, and academic contributors, is designed to meet two key objectives for the European Statistical System

- to develop new indicators on the economic impact of ICT in business without increasing the burden of surveys on respondent firms, and
- to extend consistent analysis of ICT impacts to new countries.

Its results are achieved through data linking across surveys, including (for all 13 countries) the common EU ICT use survey for business, the Structural Business Survey and business register and, for some 'lead' countries, surveys in skills, international sourcing, ICT investment and innovation. Starting from evidence on ICT and productivity from earlier single country studies using firm level data linking, the study group agreed a set of core metrics from common surveys which all countries could analyse, and 'lead' analyses based on data available in groups of countries with additional data. Each is based on the principle that important indicators are those related to productivity and growth impacts of ICT.

In addition to firm level analysis the study has developed an industry based analysis method, using a comprehensive set of metadata, to produce ICT and other indicators on a comparable basis across industries and countries. This allows technology use data to be combined with other – aggregate – economic data in productivity and growth analysis, including EU KLEMS.

The results show additional productivity effects associated with ICT through competitive substitution over and above 'within firm' effects. Evidence from the study suggests that productivity effects associated with ICT use in manufacturing are relatively consistent across the participant countries, However, effects in services are more diverse, depending on both type of industry, and the level of ICT use in the country. Firm and industry level analyses also suggests that the productivity impacts of ICT are associated with its role in originating innovation, and in enabling firms to replicate successful innovation across markets.