



**DIRECTORATE FOR SCIENCE, TECHNOLOGY AND INDUSTRY
COMMITTEE ON INDUSTRY AND BUSINESS ENVIRONMENT**

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Working Party on Statistics

WORKSHOP ON ICT AND BUSINESS PERFORMANCE - DRAFT AGENDA

9 December 2002, starting at 9.30 a.m.

This note presents the draft agenda for a workshop on ICT and business performance and provides some background. The workshop will examine the empirical evidence at the macro-economic, sectoral and firm level on ICT's impact on business performance and productivity. It will also explore the policy implications of these findings. The workshop precedes the official meeting of the Statistical Working Party of the Committee on Industry and Business Environment, and is being organised in co-operation with the Working Party on Indicators for the Information Society (WPIIS) and the Working Party on the Information Economy (WPIE).

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Background

1. The 2001 OECD Ministerial report "The New Economy: Beyond the Hype" concluded that information and communications technology (ICT) was an important technology that had the potential to contribute to more rapid growth in the years to come. Both the 2001 and 2002 OECD Ministerial meetings reiterated the importance of ICT for growth performance and a specific request for further work on ICT and business performance was made to the OECD in the autumn of 2001, by the US Secretary of Commerce, Mr. Evans.

2. Previous OECD work already examined the role of ICT at the macro-economic level as well as the role of the ICT-producing sector and ICT-using industries (Colecchia and Schreyer, 2001; Pilat and Lee, 2001; Van Ark, 2001). Many insights were gained, but the work also led to new questions. Further analysis is required to inform the policy debate, since ICT is recognised as an important driver of growth and as an important catalyst of changes in the business sector. Firm-level data are particularly relevant for further analytical and policy-relevant work. Depending on the data that are available in different countries, work on ICT and business performance might address a wide range of policy-relevant questions. Some examples of questions that could be addressed are the following:

- What determines the decision of firms to adopt ICT? What are the main (perceived and actual) barriers to ICT adoption? How and why do these barriers differ across countries?
- How does ICT affect productivity and growth at the firm level? What other factors (*e.g.* skills, organisational change) enable ICT to improve business performance?
- What characterises firms that benefit from ICT? Are new firms more likely to benefit? Does the impact of ICT vary across industries? How important is firm size?

3. These questions are only examples of issues that could be addressed. Nevertheless, they suggest that the work could help address important policy issues. For example:

- Analysis of the characteristics of firms that benefit most from ICT and the conditions under which ICT is effective in enhancing business performance can help identify the barriers, enabling factors and policies that should be addressed by policy makers. Examples include skills, access to ICT networks, lack of competition, or the security of ICT networks.
- ICT appears to have a greater impact on the performance of new firms than on old firms. This suggests that policies to enhance business creation are important to derive benefits from ICT.

4. Following the request by the US Secretary of Commerce, OECD has started a project on ICT and business performance. At an OECD meeting in November 2001, experts from several OECD countries agreed to examine the impact of ICT on productivity and business performance, using firm-level data. This group currently includes experts from the United States, Japan, Germany, France, Italy, the United Kingdom, Canada, Australia, the Netherlands, Sweden, Switzerland, Denmark and Finland (Box 1). Given the statistical nature of the work, the project involves close co-operation between OECD's Working Party on Indicators for the Information Society (WPIIS) and OECD's Statistical Working Party of

the Committee on Industry and Business Environment (SWIC). Moreover, OECD's Working Party on the Information Economy (WPIE) also takes a close interest in the project.

Box 1. Participants in the OECD firm-level project on ICT and business performance

The study is being conducted by the OECD Directorate for Science, Technology and Industry in co-operation with experts from 13 member countries:

Australia: Dean Parham (Productivity Commission) and Sheridan Roberts (Australian Bureau of Statistics).

Canada: John Baldwin (Statistics Canada).

Denmark: Peter Bøegh Nielsen (Statistics Denmark).

Finland: Petri Rouvinen (ETLA - Research Institute of the Finnish Economy) and Mika Maliranta (ETLA and Statistics Finland).

France: Thomas Heckel (INSEE).

Germany: Thomas Hempell (ZEW Centre for European Economic Research).

Italy: Fabiola Riccardini, Carlo DeGregorio and Alessandro Zeli (ISTAT), Carlo Milana (ISAE - Institute of Studies for Economic Planning).

Japan: Kazuyuki Motohashi (Ministry of Economy, Trade and Industry and Hitosubashi University).

Netherlands: Eric Bartelsman (Free University of Amsterdam), George van Leeuwen and Henry van der Wiel (CPB Netherlands Bureau of Economic Policy Analysis).

Sweden: Anders Wiberg (IPTS - Swedish Institute for Growth Policy Studies) and Anders Hintze (Statistics Sweden).

Switzerland: Maja Huber (Swiss Federal Statistical Office) and Heinz Hollenstein (KOF - Institute for Business Cycle Research).

United Kingdom: Tony Clayton and Kathryn Waldron (Office for National Statistics) and Jonathan Haskel (University of London).

United States: B.K. Atrostic and Ron Jarmin (Center for Economic Studies, US Bureau of the Census) and Patricia Buckley (US Department of Commerce).

OECD: Dirk Pilat and Alessandra Colecchia (Economic Analysis and Statistics Division).

5. The workshop on 9 December will take stock of the progress that has been achieved in the project thus far. It will present new findings on the diffusion of ICT across OECD countries,¹ the impact of ICT at the macro-economic, sectoral and firm level, and will also examine the policy implications of the empirical findings. The work is intended to contribute to a paper for the OECD Council Meeting at Ministerial level in April 2003.

6. The workshop proceeds the official meeting of the Statistical Working Party of the Committee on Industry and Business Environment and is being organised in co-operation with the Working Party on Indicators for the Information Society and the Working Party on the Information Economy. The draft workshop agenda is attached. The agenda only includes the papers that will be presented at the workshop. Additional background information for the workshop will be made available on OLIS in due time.

1. See OECD (2002), *Measuring the Information Economy*, for the latest official statistics on ICT diffusion, available at: www.oecd.org/sti/measuring-infoeconomy

STATISTICAL WORKING PARTY OF THE COMMITTEE ON INDUSTRY AND BUSINESS ENVIRONMENT, IN COLLABORATION WITH THE WORKING PARTY FOR INDICATORS ON THE INFORMATION SOCIETY AND THE WORKING PARTY ON THE INFORMATION ECONOMY

Workshop on ICT and business performance, Paris, OECD, 9 December 2002, starting at 9.30

ICT AND ECONOMIC PERFORMANCE - ISSUES AND DETERMINANTS

1. Opening and introduction

Opening by Takayuki Matsuo (Director, DSTI)

2. ICT and business performance - An overview of the evidence DSTI/EAS/IND/SWP/AH(2002)1

This paper will discuss the evidence on ICT's role in business performance and growth, at macro-economic, sectoral and firm level. It will examine the factors that determine the diffusion of ICT across OECD countries, the factors that determine the economic impact of ICT, and the policies that governments can implement to seize the benefits from ICT.

Dirk Pilat (OECD), followed by lead discussant: Carol Corrado (US Federal Reserve Board)

Coffee break

EVIDENCE FROM FIRM-LEVEL STUDIES

Part 1: Evidence from OECD countries

3. The decision to adopt ICT - evidence for Switzerland DSTI/EAS/IND/SWP/AH(2002)2

Heinz Hollenstein (KOF, Switzerland)

4. Impacts of ICT in the Australian economy - evidence from the aggregate, sectoral and firm level DSTI/EAS/IND/SWP/AH(2002)3

Dean Parham (Productivity Commission, Australia)

5. Impacts of ICT on business capabilities, innovation and growth - evidence for the United Kingdom DSTI/EAS/IND/SWP/AH(2002)4

Tony Clayton (Office of National Statistics, United Kingdom)

6. The impact of ICT on performance: evidence for Italy DSTI/EAS/IND/SWP/AH(2002)5

Fabiola Riccardini and Carlo DeGregorio (ISTAT)

Discussion of the country evidenceLead discussant: *to be confirmed***Lunch break**

13.00-14.30

Part 2: Cross-country evidence from firm-level studies

7. **The role of experimentation - differences in firm performance between Germany and the United States** DSTI/EAS/IND/SWP/AH(2002)6

Ron Jarmin (Center for Economic Studies, US Department of Commerce)

8. **Links between ICT and innovation - evidence for Germany and the Netherlands** DSTI/EAS/IND/SWP/AH(2002)7

Thomas Hempell (ZEW, Germany) and George van Leeuwen (CPB, Netherlands)

9. **The effect of computer networks on firm performance: Japan, Denmark and the United States** DSTI/EAS/IND/SWP/AH(2002)8

Kazuyuki Motohashi (Hitotsubashi University and METI, Japan), Peter Boegh Nielsen (Statistics Denmark) and B.K. Atrostic (Center for Economic Studies, US Department of Commerce)

Discussion

Lead discussant: Eric Bartelsman (Free University)

Coffee break**SEIZING THE BENEFITS FROM ICT - POLICY IMPLICATIONS**

10. **Policies to seize the benefits from ICT - panel discussion** DSTI/EAS/IND/SWP/AH(2002)9

This panel will discuss the policy implications from the evidence presented during the workshop. A short issues paper will guide the discussion. The panellists will include, amongst others: Carol Corrado (US Federal Reserve Board) and Eric Bartelsman (Free University Amsterdam). The panel will be chaired by Jean-Philippe Cotis (Chief Economist of the OECD).