# 18th Meeting of the Voorburg Group on Service Statistics

# OECD work on standards for measuring electronic business

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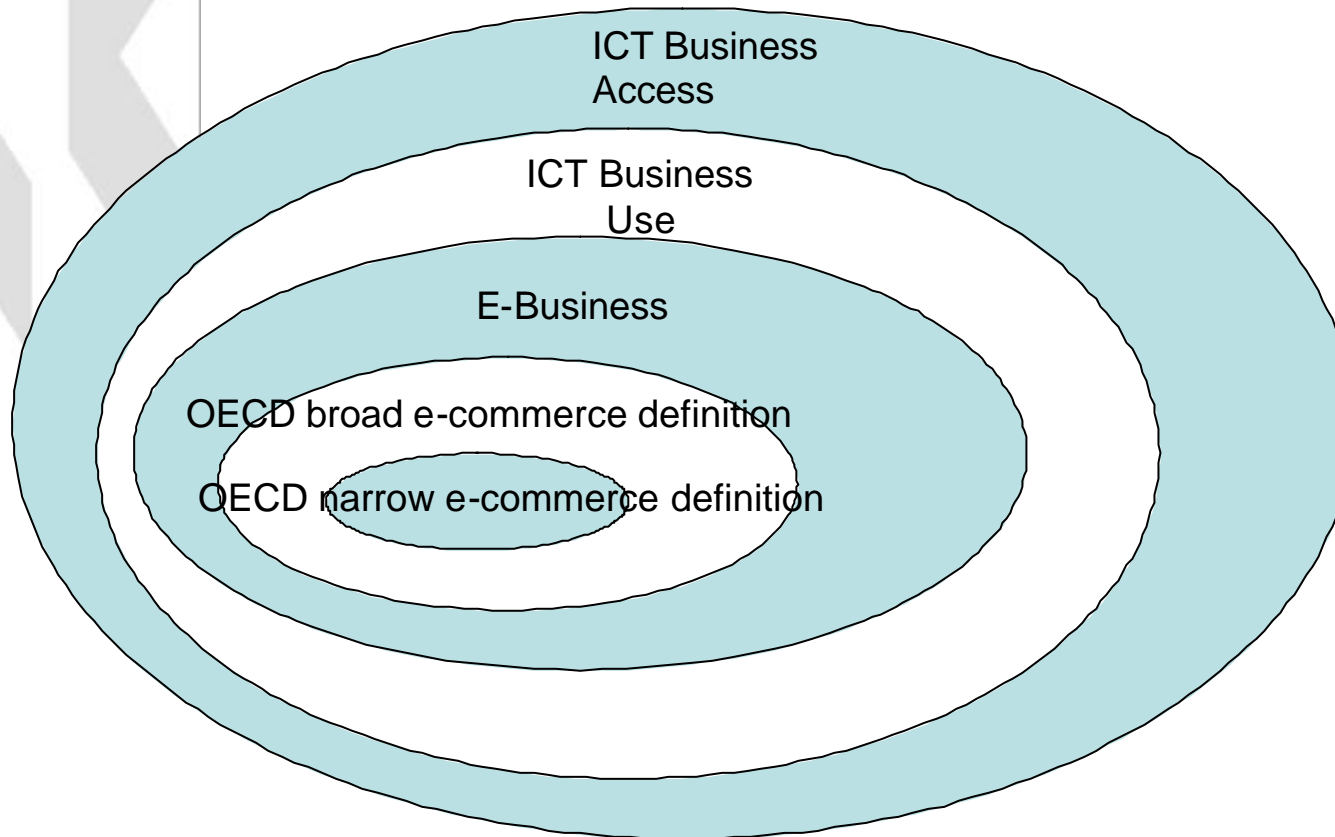- **For discussion – Voorburg views**

# Background

- In 1999, OECD's Working Party on Indicators for the Information Society (WPIIS) established an Expert Group on Defining and Measuring Electronic Commerce
  - to "compile definitions of electronic commerce which are policy relevant and statistically feasible".
- Work by the Expert Group resulted in definitions in 2000 for
  - electronic commerce transactions
  - Internet commerce transactions
  - electronic commerce business processes
  - Internet commerce business processes.
- The April 2000 WPIIS meeting agreed with the two transactions-based definitions but deferred decision on the electronic commerce business process definitions.

# Background…continued

- In 2001, a model questionnaire on the use of ICT/E-commerce in the business sector was agreed by WPIIS
  - it contained questions on how enterprises were using ICT (especially the Internet)
  - it did not comprehensively cover the range of an enterprise's possible electronic business processes
  - the WPIIS Expert Group on Defining and Measuring Electronic Commerce recommended in 2002 that a module on electronic business processes be developed
  - A new Expert Group was established at the 2002 WPIIS meeting.

# Work of the Expert Group: broad context

ICT Business
Access

ICT Business
Use

E-Business

OECD broad e-commerce definition

OECD narrow e-commerce definition

# Work of the Expert Group: definition of electronic business processes

- The Expert Group's proposed definition is based on functionality rather than technology.

- It is "(automated) business processes (both intra-and inter- firm) over computer mediated networks"
  - in addition, electronic businesses processes should integrate tasks and extend beyond a stand alone or individual application

# Work of the Expert Group: classification of electronic business processes

- Broad business functions were identified and described in terms of electronic business processes
  - customer acquisition and retention
  - e-commerce
  - finance, budget and account management
  - human resource management
  - product design and development
  - order fulfilment and order tracking
  - logistics (inbound & outbound) and inventory control
  - product service and support
  - knowledge management.

# Work of the Expert Group: data items to be collected

- Which activities/functions/processes are managed over computer-mediated networks?

- Which processes have been re-organised/modified/changed/innovated through use of computer-mediated networks?

# Work of the Expert Group: other issues and characteristics

- industry differences – services versus manufacturing
- size differences – less of a measurement issue than industry differences?
- intra/inter firm and integration of systems – complex, how do we measure integration?
- type of network – Internet/non-Internet and Proprietary/non-Proprietary
- outsourcing – no specific recommendation
- impacts/effectiveness of electronic business processes – can impacts data be collected via a survey?
- reporting burden – recognised that a new module would increase respondent load.

# Work of the Expert Group: information matrices

- two matrix questions suggested

- electronic business processes used by level of use (integration, inter/intra firms, use in innovation)

- integration between electronic business processes

- see paper for details.

# Related work: OECD work

- Electronic Commerce Business Impact Project
  - OECD co-ordinated case study project on the impacts of electronic commerce on business
- Firm level studies
  - OECD led study on the impact of ICT on firm performance, using official statistics
  - link with innovation
- Measurement of electronic commerce in the financial sector
  - a separate Expert Group of WPIIS examined the measurement problems of ICT use/E-commerce in the financial sector
  - the Group recognised that both e-commerce and e-business measurement issues were likely to be different for the financial sector
  - they did not define a set of electronic businesses processes for the sector - further input and experience is required.

# Related work: NSO work

- Some NSOs have included selected electronic business process questions in their national surveys of ICT use/e-commerce
  - typically list based
  - use of Internet questions
  - web site functionality/facilities questions
  - integration of orders/purchases systems with other IT systems
  - information sharing facilitated by ICT.
- Some countries have gone further … with a more comprehensive set of electronic business processes
  - Japan in its Survey of ICT Workplaces
  - The US, in its Computer Network Use supplement to the annual Survey of Manufactures.

# Next steps

- The Expert Group proposed a work plan as follows
  - seek country comments
  - obtain advice from business community experts
  - identify and prioritise lower level electronic business processes
  - identify appropriate information to collect for those lower level electronic business processes
  - …and develop survey questions for them
  - present results of the investigation, collect member country comments
  - present proposal to the April 2004 WPIIS meeting.
- As part of this workplan, OECD proposes to hold a workshop on this topic in December this year
  - details are not finalised yet
  - we hope to involve statisticians, analysts, policymakers and businesses.

# For discussion – Voorburg views are sought on:

- the Expert Group's suggested definition of electronic business processes and the two questions presented
- whether you think it possible to capture electronic business process data in an economy wide survey
- measurement of electronic business processes more generally, including country experiences.