Measuring Business Access to Information & Communication Technology

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ITU

- UN specialized agency for telecommunications
- Has been collecting statistics for 30 years
- With fusion of telecommunications, computers and broadcasting has expanded coverage to Information and Communication Technology indicators (ICT)
- Has expanded sources from administrative records to include surveys
- Focus on accessibility and e-readiness hence interest in ICT in business sector
- See [www.itu.int/ti](http://www.itu.int/ti)
### Importance

**Contribution of ICT to output growth, 1995-99, Percent**

- Japan: 40%
- Germany: 20%
- US: 0%
- Italy: 4%
- Austria: 0%
- Finland: 0%
- Australia: 0%
- UK: 0%
- France: 0%
- Canada: 0%

**Percent of Internet users who only access from work, 2002**

- Ireland: 20%
- Belgium: 20%
- Estonia: 16%
- Latvia: 14%
- Lithuania: 14%
- Finland: 14%
- Czech Rep.: 14%
- UK: 14%
- Austria: 14%

**Source:** ITU adapted from OECD, SIBIS.
# What to measure

<table>
<thead>
<tr>
<th><strong>Access</strong></th>
<th><strong>Use</strong></th>
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<tbody>
<tr>
<td>- PCs</td>
<td>- Type of connection</td>
</tr>
<tr>
<td>- Internet access</td>
<td>- Uses</td>
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<td>- Web site</td>
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<tr>
<th><strong>E-commerce</strong></th>
<th><strong>Benefits &amp; Barriers</strong></th>
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<tbody>
<tr>
<td>- Purchases</td>
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<td>- Sales</td>
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Methods

- Sample survey
  - OECD, Model Questionnaire on ICT Usage and Electronic Commerce in Enterprises
  - Eurostat, Pilot Survey
  - National

- Universe
  - Size (by employees)
    - Micro (< 5)
    - Small (5 – 9)
    - Medium (20-99)
    - Large (100+)

  - Industry type
    - Primary
    - Manufacturing
    - Services

Often excluded
Size, Example from New Zealand

Source: ITU adapted from Ministry of Economic Development (New Zealand), Statistics New Zealand.
Good coverage of developed economies for access indicators

Note: All businesses with 10 or more employees except Canada.
Source: ITU adapted from OECD (beginning 2001).
Asian Tigers and some Economies in Transition also have data

Businesses with ICTs, Percent

Source: ITU adapted from FIND 2002 (Taiwan, China), IDA 2002 (Singapore), C&SD 2002 (Hong Kong China), NCA 2001 (Korea, Rep.) & Baltic Information Society Statistics (right chart).
Scarce data for developing nations & comparability questionable

Source: ITU adapted from OECD, INEGI (Mexico, 1999, all firm sizes) and INEI (Peru, 2000, 5+ employees) & NCB (Mauritius, 2001, 10+ employees).
Some studies particularly for SMEs

Source: ITU adapted from ZEF, “The Role of ICT for the Performance of SMEs in East Africa” & The Asia Foundation, “Regional Survey of SMEs’ use of eCommerce.”
Proxies

- Domain registrations in the .com.cc domain
- Business Internet subscriptions
Business Digital Divide

Internet access in Chilean micro, small and medium sized firms, 2001, percent

Source: ITU adapted from INE Chile and Eurostat.
Conclusions

- Need to enhance visibility of existing surveys
- Disseminate model questionnaire
- Reinforce statistical capacity
- Focus on access indicators as first step
  - Businesses with PCs
  - Businesses with Internet access
  - Businesses with web page
- Target of at least 100 countries with data by 2005