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EUROPEAN COMMISSION
EUROSTAT

Directorate F: Social Statistics and
Information Society
Unit F-6: Information Society and
Tourism Statistics

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Information Society
Statistics

3rd workshop on Information Society Measurement for Latin America and the Caribbean

Panama City, Panama
22 – 24 November 2006
ECLAC, United Nations

Eurostat's Information Society Statistics

*Benchmarking the ICT-driven development in the
European Community*



Information Society statistics

Two annual Community surveys:

- ICT usage and e-commerce in enterprises (since 2001)
- ICT usage in households and by individuals (since 2002)

Information Society statistics

- 2000 - Lisbon process
eEurope benchmarking indicators 2003/2005
 - 2005 - Revised Lisbon strategy
focus on an inclusive society, better jobs and enhanced competitiveness
- New i2010 benchmarking framework

Information Society statistics (ISS)

- Legal basis:

Regulation 808/2004 concerning Community statistics on the Information Society until 2010

+ Annual implementing measures

- Annual Eurostat model questionnaires

- Annual data collections (Member States)

ISS: Implementing Procedures I

Time frame from revising the list of variables to publication of results: 20 months

2007 surveys:

October 2005/March 2006: Working groups with Member States

May 2006: Agreement with Member States on a list of variables/model questionnaires

July 2006: European Commission adopts the new Commission regulation

ISS: Implementing Procedures II

National Statistical Institutes:

End of 2006: Translation/adoption of the model questionnaires

First half of 2007: Execution of the surveys

October of 2007: Delivery of the data

Eurostat:

November 2007: Publication of these data on Eurostat's public database

Information Society statistics (ISS)

- Country coverage

Up to 2005:

Most of the EU15 /EU 25 (voluntary basis)
+ IS, NO and Candidate countries

2006 onwards:

30 countries: all EU 25 (legal basis)
+ IS, BG, NO, RO and TR

ISS –Future development

***From access & connectivity measurement
to impact assessment***

Information Society surveys

- ✓ Keep stock of *core indicators* for time series
- ✓ Use *annually changing modules* on specific items:
 - ✓ e-government (HH 2006)
 - ✓ e-Skills / digital literacy (ENTR + HH survey 2007)
 - ✓ e-Business (ENTR 2008) / advanced services (HH 2008)
 - ✓ e-commerce and trust (2009) and security 2010) for both of the surveys

ISS –Future development

Information Society surveys (II).....

- ✓ Check feasibility of *regional breakdowns* within Member States
- ✓ Switch from aggregate data to *microdata*
- ✓ ***.....and complementary actions:***
- ✓ new work processes in progress:
 - ✓ Project on ICT investment &
 - ✓ Project on ICT impact assessment by linking data from different sources

ISS – Lessons learnt I

- Common set of variables needs to fit to all EU 25 Member States
- Agreed limitation of burden to respondents
- Request for more breakdowns may require enhanced sample sizes

ISS – Lessons learnt II

- Reliability and validity for all EU-25:
 - Improve standards for metadata reporting and data transmission for timely publication
- Comparability for all EU-25:
 - Standardisation of input to improve comparability of output

Enterprise survey - Breakdowns

- **Scope / Target population**

- Sections D to K of NACE 1.1 + Divisions 92 and 93 (some activities are optional)
- Financial sector covered by a specific model questionnaire
- Enterprises with 10 or more persons employed (enterprises with less than 10 are covered optionally)

- **3 background variables used to breakdown results:**

- Size (5 categories)
- Economic activity (22 categories)
- Region – currently only objective 1 vs. non-objective 1

Enterprise survey: Basic ICT uptake

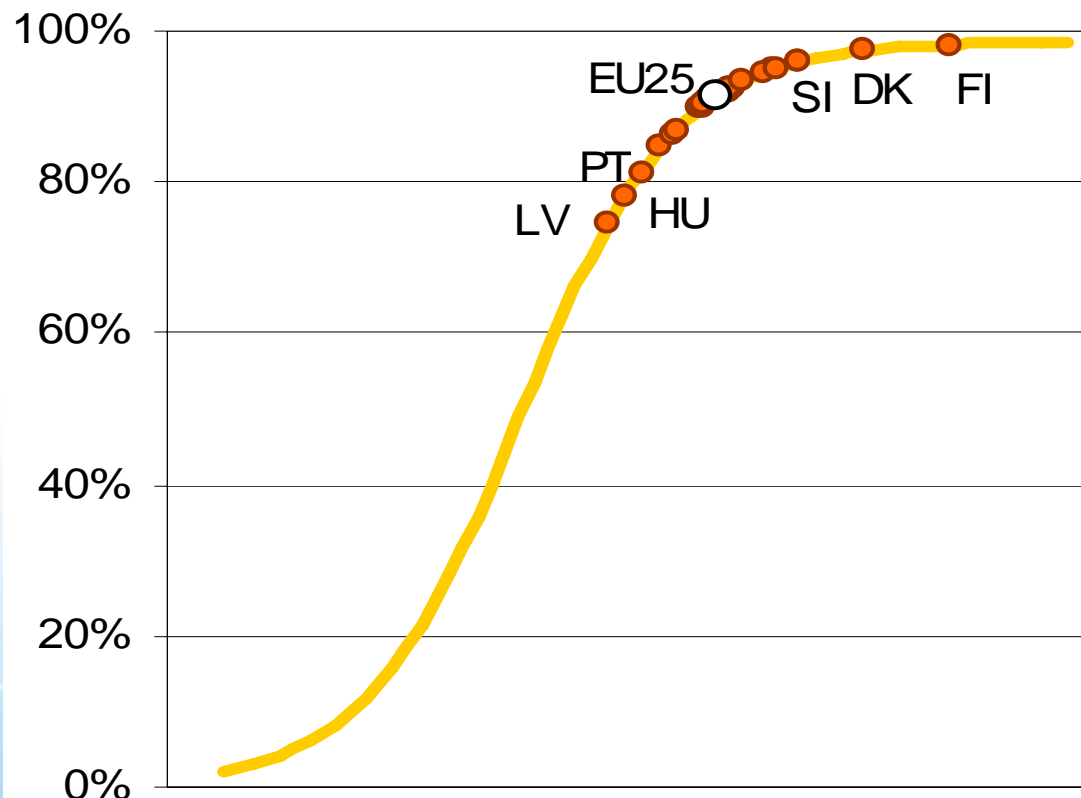
- Computer usage
- Percentage of persons employed using computers at least once a week
- ICT usage: wireless LAN
- ICT usage: wire based LAN
- ICT usage: Intranet
- ICT usage: Extranet

Enterprise survey: Internet

- Access to the Internet
- Type of connection to the Internet
- Usage of Internet Services
 - Banking and financial services; receiving digital products
- Interaction with public authorities (e-Government)
- Existence of web-site
- Use of the web-site
 - Marketing own products, catalogues and price lists

Enterprise survey: e-Business

Enterprises with Internet access (2005)

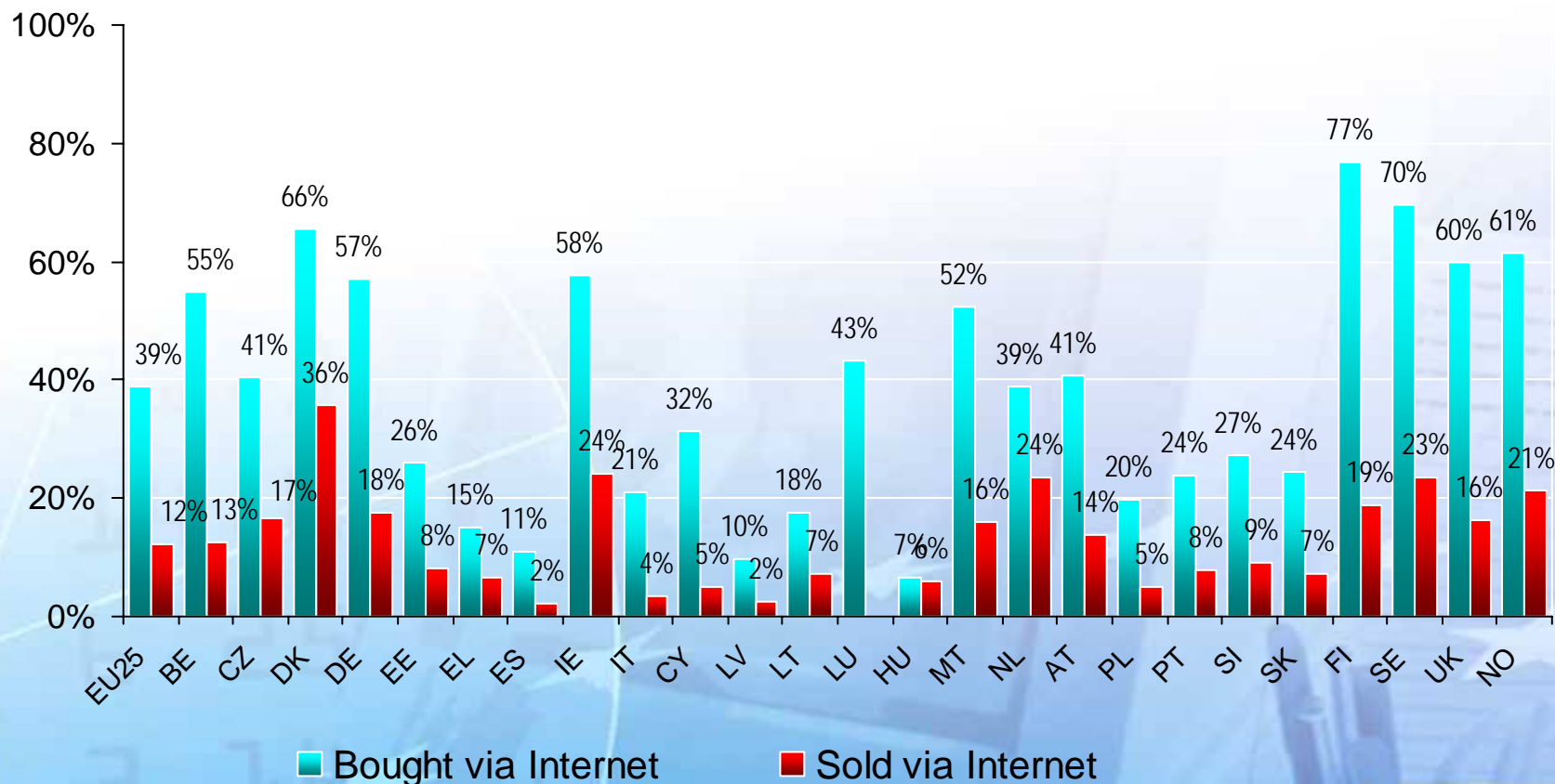


Enterprise survey: e-Commerce

- Ordering via the Internet (+other computer networks)
- %age of purchases after ordering via Internet
- Reception of orders via Internet (+other computer networks)
- %age of turnover from orders received via Internet
- Use of secure protocols (SSL/TLS) in receiving Internet orders
- Internet e-sales by type of client: B2B and B2G
- Internet e-sales by type of client: B2C

Enterprise survey: e-Commerce

Internet commerce in % (enterprises with Internet access) – 2005



■ Bought via Internet

■ Sold via Internet

Enterprise survey: e-Business

- Since 2003 the enterprise survey has included e-business questions
 - On technologies
 - On integration of business processes
- In 2007 new questions will be introduced
 - On internal integration: CRM, ERP
 - On external integration: e-invoices

Enterprise survey 2007: e-skills module

- Two types of personnel with e-skills:
 - ICT specialists
 - ICT users
- Percentage of personnel which is ICT specialist
- Recruitment: Needs, problems to fill vacancies
- Training provided
- Outsourcing and off-shoring:
 - Which ICT functions
 - To which regions (EU / non-EU)

Enterprise survey 2008

- New structure of the model questionnaire – from technology to process orientation:
 - a. Adoption of basic ICT & e-skills,
 - b. Access & use of the Internet,
 - c. E-business:
 - Internal integration of business processes, e.g. Sharing business information between different functional areas of the enterprise using ICT means
 - External integration of business processes, e.g. Electronic exchange of data between own and ICT systems outside the enterprise concerns,

Enterprise survey 2008 (cont.)

- d. E-commerce
- e. Barriers on adoption of e-business (list)
- f. Perceived benefits of e-Business
- Revision of the breakdown by economic activity following the NACE/ISAC revisions 2008
- Improve coverage of micro-enterprises

Household survey (HH)

Strength: Large set of breakdown variables, allowing for detailed socio-demographic analysis (e.g. for monitoring e-Inclusion)

➤ **Socio-demographic background variables**

- Age, Gender
- Educational level, Employment situation
- Occupation (manual / non-manual ; ICT job / non-ICT job)
- Degree of urbanisation (urban, intermediate, rural)

Household survey (HH)

➤ **Socio-demographic background variables (cont.)**

- Household composition (number of HH members, number of children under 16)
- Household income (in quartiles ; optional question)

➤ **Additional breakdowns**

- Broadband users versus narrowband users
- Regular users versus non-regular users
- Regional breakdowns

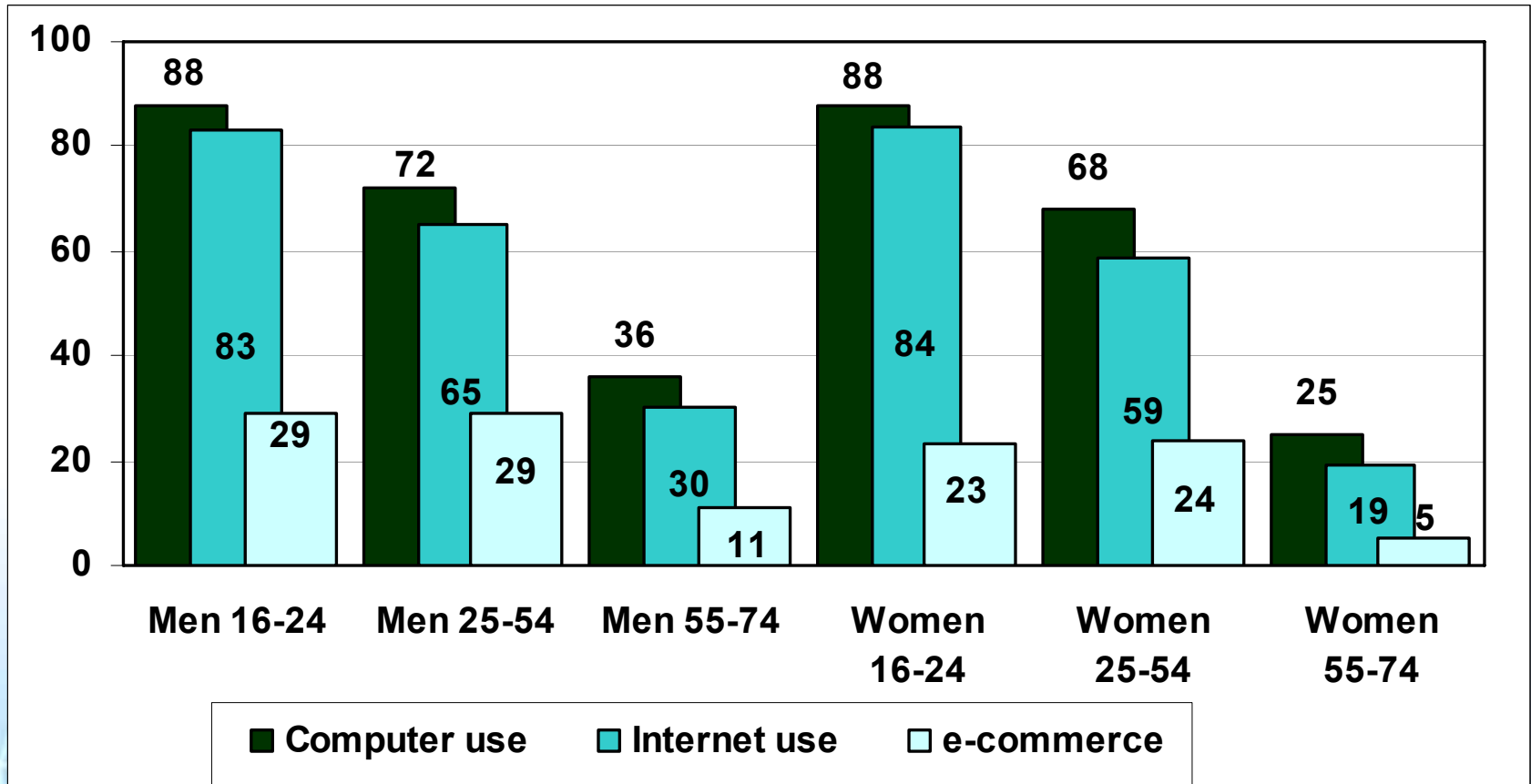
HH Basics: Access and connectivity

- Access to a computer, digital TV, games console, mobile phone, ... ?
- Internet connection?
- Devices used to access the Internet?
- Type of connection – broadband?
- Barriers for e.g. Internet/broadband at home

HH - Use of Internet: core variables

- Most recent use of the Internet?
- Frequency of Internet use?
- Location of Internet use?
 - ➔ *Stand-alone information, but also serves as indirect information for monitoring digital literacy, digital divide*
- Access to the Internet via mobile devices (GPRS, UMTS, palmtop, portable computer via wireless connection, ...)?

Individuals' use of computers and Internet (2006), by gender and age group (EU25)



HH - Use of Internet: purposes

- Respondents are asked for which activities they have used the Internet in the 3 months before the interview?
 - Sending / receiving e-mails
 - Telephoning over the Internet
 - Using services related to travel and accommodation
 - Reading or downloading online newspapers, magazines
 - Seeking health-related information
 - Looking for a job or sending a job application
 - Internet banking
 - E-government
 - E-learning
 - ...

HH 2006: Specific module e-government

- Usage/interest to use the internet to replace personal visits to public services
- Reasons for not using the internet in dealing with public services or administration
- Dealing via Internet with 12 specific public services: *yes/ would like to/no*
 - Income taxes,
 - Social security benefits,
 - Certificates (bbirht, marriage),
 - enrolment in higher education or university,
 - Health related services, etc.

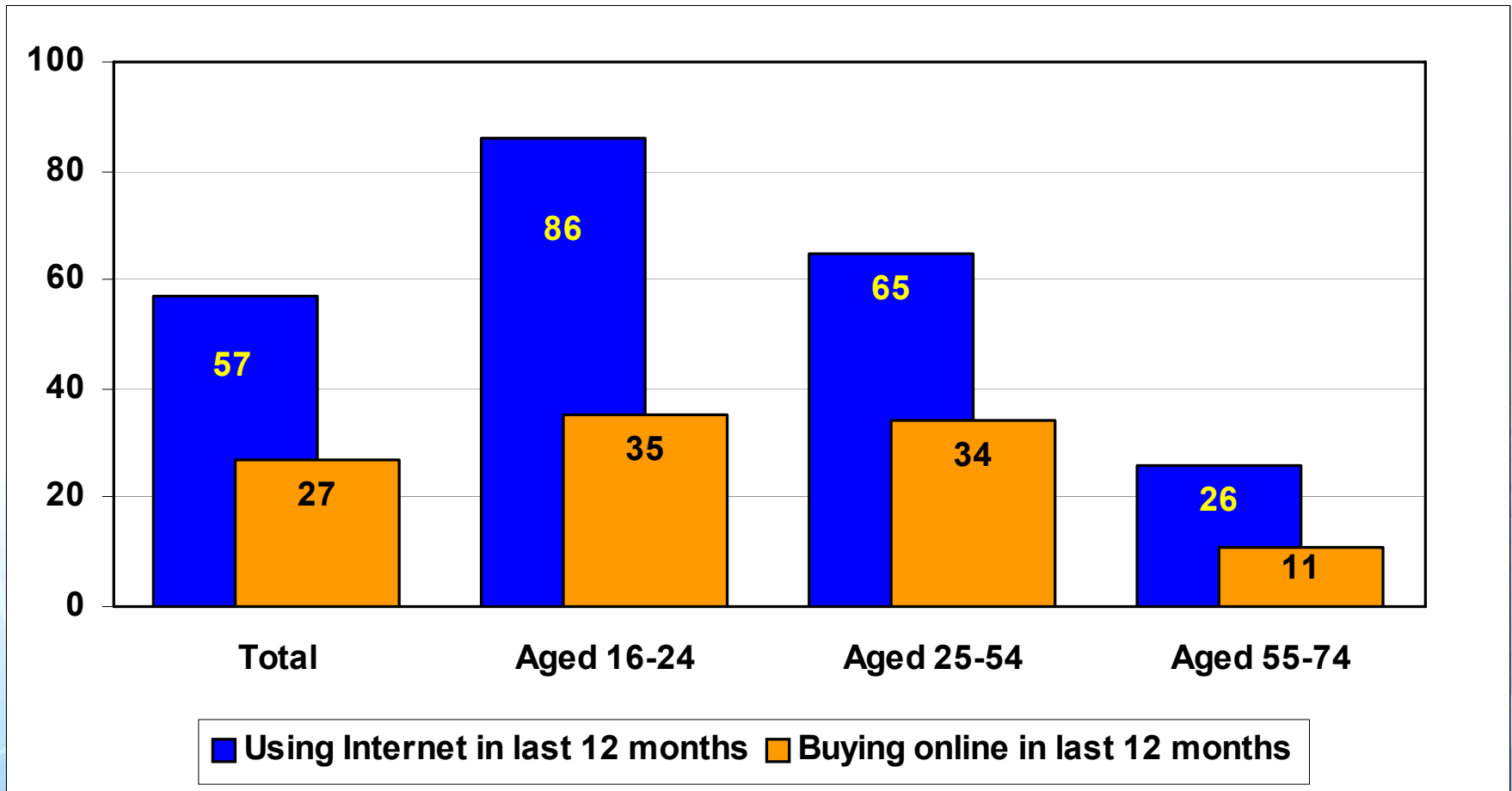
HH 2006: module e-government (cont.)

- For which kind of interaction with public services did you use the Internet for private use:
 - Obtaining information from the public website
 - Downloading official forms, or
 - Sending completed forms

HH 2006: e-commerce, e-shopping

- Most recent purchase over the Internet?
- Type of goods or services bought or ordered over the Internet?
 - Films, music
 - Computer software and upgrades
 - Household goods
 - Travel or holiday accommodation
 - Tickets for events
 - ...
- ➔ *Where applicable: delivered online?*
- For e-shoppers: problems encountered when buying online?
 - Lack of security of payments, speed of delivery, ...
- For non e-shoppers: reasons for not buying online?
 - Lack of skills, security or privacy concerns, lacking a credit card, ...

Internet use and e-shopping, by age group (2006, EU25)



ISS HH survey: The future

- **Detailed module** on *digital literacy, e-skills and e-learning* in the 2007 survey
- **Additional breakdowns** in the pipeline for more detailed monitoring of e-inclusion and digital divide
 - Feasibility of more detailed **regional** breakdown is being studied (e.g. Länder, provinces, ...)
 - Expanding the number of countries collecting information on the **household income** (currently optional)
 - 2006 survey: data collection for younger individuals (< 16y) and older individuals (>74y)

Specific Module: Advanced Services

i2010 Benchmarking Framework:

- „Advanced services“ module will replace the 2007 module on e-skills
- new module will possibly expand existing questions on Internet activities

Advanced Services can address

- Provision of on-line content
- Communication services (for example e-mail, SMS, MMS, VoIP, video conference)
- Financial or commercial transaction services
- Location services associated to mobile devices

Specific Module: Advanced Services

Of specific interest:

- **Users' creating and transferring online content, weblogs/blog and podcasting**
- **Access platforms used for advanced service delivery such as mobile devices (phones, PDAs/MP3 players etc.), PC, TV**
- **Barriers to pay for online content (e.g. Lack of micro-payment methods, quality)**
- **User satisfaction with online services, frequency of using new services which are replacing traditional ways of using services**
- **Typology of users such as broadband and non-broadband users**

ISS – Methodological Manual & Recent output

▪ **Statistics in Focus** publications on-line:

➤ **Digital Divide in Europe (2005)**

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-NP-06-012

➤ **Use of the Internet among individuals & by enterprises (2006)**

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-NP-06-012

➤ **How skilled are Europeans in using the computers and the Internet (2006)**

http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-NP-06-017

➤ **Methodological Manual on ISS 2006:**

➤ http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-BG-06-004