

# i2010 Annual Report 2007



**Denmark is among the top nations in most i2010 indicators and is a clear leader in developing the information society. However, other countries have been catching up in several areas.**

## Denmark Today

There is continued rapid growth in broadband and Denmark is currently one of the most connected EU countries. 20% of households are still on narrowband which may limit future growth from conversions. Digital Subscriber Line (DSL) is less dominant than in the rest of the EU. Enterprise connectivity is not fully on a par with household levels but is still solid. Danish citizens are also among the most active EU users of online services. Use of online media has grown from last year's average figures towards the leading group of nations. The commercial market for online content does not fully reflect the very high broadband penetration and high consumption of audiovisual online content.

eGovernment use is high for supply and demand, but other countries have improved more during the last year, pushing Denmark out of the top countries. The exception to this is enterprise use, which remains very high. ICT-deployment in schools is the highest in Europe, in connectivity and use.

The workforce is among the most skilled in Europe and is given freedom to use flexible work forms through ICT tools. Businesses are overall the most advanced internet and eBusiness users in the EU, but growth is slowing. R&D-levels are in the top bracket but significantly behind Sweden and Finland. Focus on IT within R&D is among the highest in Europe.

## Danish ICT Policy

Denmark sees the need to move from basic to advanced ICT use and stresses four areas of activities:

**ICT market:** the aim is to increase efficiency through market mechanisms. The review of the EU Telecom Rules will contribute to this and Denmark has surveyed its own market players. Other measures include: modernising spectrum rules, a new national software knowledge centre, and framework conditions for digital TV and content.

**eInclusion** promoted via several initiatives: easier access to public digital services due to the wider use of electronic signatures, various eLearning projects, an awareness campaign on IT security, etc.

**eGovernment:** the overriding goal is to ensure interoperability of ICT systems. An advanced internet portal has been introduced as well as web-based consumer guides. In government, a new model for managing ICT is being introduced, common standards for data exchange and interfaces are being developed, and digitisation of working procedures continues. Municipal reform is conducted in connection to ICT system reform.

**Innovation through ICT** through easier access to expert knowledge regarding eBusiness for enterprises, increased cooperation between enterprises and knowledge institutions through the Danish Regional ICT Initiative and increased efforts in ICT research.

| <b>Broadband</b>  | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>EU25</b> | <b>Rank</b> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Total DSL coverage (as % of total population)                                     | 95.0        | 100.0       | 100.0       |             | 87.4        | 1           |
| DSL coverage in rural areas (as % of total population)                            |             |             | 100.0       |             | 65.9        | 1           |
| Broadband penetration (as % of population)  | 11.2        | 16.3        | 22.5        | 29.4        | 15.7        | 2           |
| DSL penetration (as % of population)  | 7.8         | 11.0        | 14.2        | 18.1        | 12.8        | 3           |
| Predominant download speed  |             |             | 0.5-1Mbps   |             |             |             |
| Households having broadband (as % of those having access to the internet at home) | 39.1        | 51.6        | 68.3        | 80.3        | 62.1        | 6           |
| % of enterprises with broadband access  | 69.0        | 79.8        | 82.5        | 82.7        | 74.5        | 8           |
| Number of 3G subscribers per 100 inhabitants                                      |             |             | 28.4        |             | 5.0         | 1           |
| Digital Television in households  |             |             | 18.6        |             | 30.6        | 11          |
| Music: number of single downloads per 100 inhabitants                             |             |             | 17.6        |             |             | 8           |
| <b>Internet Usage</b>   |             |             |             |             |             |             |
| % population who are regular internet users                                       | 64.0        | 69.6        | 73.2        | 78.1        | 46.7        | 3           |
| <b>Take up of internet services (as % of population)</b>                          |             |             |             |             |             |             |
| Sending emails  | 60.8        | 64.8        | 69.3        | 74.2        | 43.8        | 3           |
| Looking for information about goods and services                                  | 53.3        | 58.9        | 62.6        | 67.8        | 42.9        | 5           |
| Internet telephoning or videoconferencing   | 3.9         | 5.7         | 8.8         | 13.1        | 7.1         | 7           |
| Playing/downloading games and music   | 16.7        | 18.6        | 20.9        | 26.3        | 18.2        | 8           |
| Listening to the web radio/watching web tv  | 12.0        | 16.1        | 19.1        | 27.0        | 11.8        | 5           |
| Reading online newspapers/magazines   | 32.1        | 35.7        | 38.4        | 46.4        | 19.0        | 4           |
| Internet banking  | 37.5        | 44.9        | 48.7        | 57.2        | 22.0        | 5           |
| <b>Places of access</b>   |             |             |             |             |             |             |
| % at home   | 62.6        | 67.8        | 71.9        | 77.1        | 42.6        | 3           |
| % at work   | 35.0        | 41.1        | 37.3        | 46.5        | 23.0        | 3           |
| % at educational place  | 10.6        | 11.9        | 11.0        | 14.3        | 8.0         | 3           |
| % at PIAP   | 9.9         | 13.0        | 5.7         | 8.8         | 6.8         | 8           |
| <b>eGovernment Indicators</b>   |             |             |             |             |             |             |
| % basic public services for citizens fully available online                       | 54.5        | 33.3        |             | 41.7        | 36.8        | 11          |
| % basic public services for enterprises fully available online                    | 87.5        | 87.5        |             | 87.5        | 67.8        | 3           |
| % of population using e-Government services                                       | 40.1        | 43.8        |             | 43.2        | 23.8        | 6           |
| of which for returning filled in forms  | 13.7        | 13.9        |             | 16.9        | 8.1         | 6           |
| % of enterprises using e-Government services                                      | 74.7        | 84.6        | 86.9        | 87.3        | 63.7        | 3           |
| of which for returning filled in forms  | 34.9        |             | 56.4        | 55.1        | 44.8        | 9           |
| <b>ICT in schools</b>   |             |             |             |             |             |             |
| Number of computers connected per 100 pupils                                      |             |             |             | 26.3        | 9.9         | 1           |
| % of schools with broadband access  |             |             |             | 95.0        | 67.0        | 1           |
| % of teachers having used the computer in class during the last 12 months         |             |             |             | 94.6        | 74.3        | 2           |
| <b>e-Commerce</b>   |             |             |             |             |             |             |
| E-commerce as % of total turnover of enterprises                                  | 7.5         | 12.2        |             | 17.5        | 11.7        | 1           |
| % enterprises receiving internet orders   | 13.2        | 26.5        | 34.7        | 35.1        | 13.9        | 1           |
| % enterprises purchasing on the internet  |             | 57.8        | 63.8        | 59.3        | 37.9        | 5           |
| <b>e-business. % enterprises:</b>   |             |             |             |             |             |             |
| with integrated internal business processes                                       | 35.4        | 35.8        | 62.2        | 63.4        | 37.3        | 1           |
| with integrated external business processes                                       | 11.8        | 10.5        | 22.6        | 24.0        | 13.5        | 1           |
| Security: % enterprises using Secure servers                                      | 29.0        | 32.2        | 54.7        | 58.9        | 41.0        | 3           |
| % using digital signatures for authentication                                     | 12.5        |             | 10.0        | 12.5        | 14.3        | 10          |
| <b>Employment and Skills</b>  |             |             |             |             |             |             |
| % employees using computers connected to the Internet                             | 55.8        | 53.4        | 54.0        | 61.4        | 36.1        | 1           |
| % of persons employed with ICT user skills.                                       | 22.9        | 22.6        | 23.2        | 23.0        | 18.5        | 2           |
| % of persons employed with ICT specialist skills                                  | 4.2         | 4.0         | 3.5         | 3.9         | 3.1         | 6           |
| <b>Indicators on growth of ICT sector and R&amp;D</b>                             |             |             |             |             |             |             |
| ICT sector share of total GDP   | 4.8         |             |             |             | 5.5         | 16          |
| ICT sector share of total employment  | 4.4         |             |             |             | 4.0         | 8           |
| ICT sector growth (constant prices).  | 3.6         |             |             |             | 3.6         | 5           |
| R&D expenditure in ICT by the business sector, as % of GDP                        | 0.5         |             |             |             | 0.3         | 3           |
| === as % of total R&D expenditure   | 31.5        |             |             |             | 25.7        | 5           |