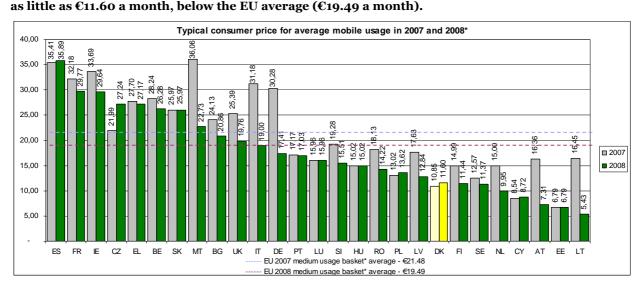


# Towards a Single European Telecoms Market:

#### Focus on Denmark

Denmark is not only the European, but also the world champion for broadband internet penetration, and looks set to cement this position thanks to strong investments in internet networks. The number of subscribers in the broadband and mobile markets grew in 2008, as did demand for faster broadband and mobile data services (for example, connecting to the net with a wireless USB modem). Consumers benefit from competition on retail prices and from their ability to change easily service providers while keeping their own mobile number; the share of total mobile numbers that have been ported in Denmark is the second highest in the EU. The typical mobile phone user can pay



\*The above table relates to the cheapest offer in the medium usage basket using OECD methodology as of 2006. It consists of 65 outgoing calls per month + 50 SMS messages + 2-3 MMS. 21% of calls are to fixed line phones, 72% to mobile phones, 7% to voicemail. Where appropriate, it includes monthly rental, and any registration charges (post-paid offers, in particular).

### **Progress Broadband world leader**

For the second year running, Denmark has the highest broadband internet penetration in the world, at 37.3% in January 2009. This is well above the EU average (22.9%). 100% of the Danish population have now access to broadband networks. Increased demand for broadband services is also driving the demand for higher broadband speeds. 70% of the Danish population had broadband connections between 2 and 10 Mbps (megabits per second), and 17.8% of 10 Mbps and above (January 2009). This high speed allows consumers to more easily use advanced internet applications like high quality streaming videos.

Broadband consumer prices for a median offer in Denmark reached €30.14, among the lowest in the EU (EU average €36.89).

More competition, more investment Denmark looks set to take this lead to the next level, with the ultra fast fibre networks being laid down by power companies already reaching 400 000 households, and set to reach 2.5 million households and half a million businesses by 2015. The Danish fixed broadband incumbent is improving its access networks through the upgrading of street cabinets to deliver fibre connections.

There is more and more demand for the faster internet speeds that can be provided by fibre networks, with 17.8% of connections at 10 megabytes per second and above (January 2009), up from 7.7% in July 2008. Fibre accounted for 4.3% of all broadband connections in January 2009 (87 991 fibre lines compared to 71 412 fibre lines in January 2008).

#### Mobile: upward and onward

In 2008, strong competition and growth in the mobile market resulted in price reductions and high subscription levels. There were more than 7.1 million subscribers in October 2008. Even though the market would appear to be saturated, the mobile penetration rate reached 120% in October 2008, up from 113.9% in 2007, a figure slightly higher than

the EU average of 119%. The termination rates that operators charge for connecting a call from another operator's customer decreased, for calls to mobiles during 2008 to €0.086, down from €0.099 in October 2007. This is still slightly above the EU average (€0.0855).

This growth in the mobile market is helped by the fact that consumers can change mobile operators without changing their number. 293 657 mobile numbers were ported in the first half of 2008, an increase of 23.6% from the year before. Denmark has the second highest percentage of mobile ported numbers in the EU (39.97%). The wholesale price for number portability was €3.7 in 2008, decreasing from €9.6 a year before.

## **Areas for Improvement Narrowing broadband profit margins**

Wholesale broadband prices that operators pay to provide internet services using another operator's network have increased by about 5.5% over the past year, mainly due to increasing interest rates and cost of labour. There is now little room between them and retail consumer prices. This development may be also due to the pricing model used to calculate interconnection charges between operators. The monthly average wholesale cost for using the incumbent's network is €11.02 (for full use), almost equal to the EU average of €10.88. For shared use, the price (€5.98) is well above the EU average (€4.13). The Danish regulator and the national competition authority are examining whether there is a 'margin squeeze' between wholesale and consumer broadband prices.

## Mandatory membership to local cable-TV networks -

barrier to entry for fibre deployment?

Danish energy companies are massively investing in deploying ultra fast fibre-to-the-home internet networks as an alternative infrastructure, which are expected to have a significant impact on the overall broadband competition. However, the roll-out of these networks and also the take-up of fibre-to-the-home connections could be hindered by various municipalities' local district plans. These include mandatory membership and payment by the Danish residents to a local cable-TV network providing cable-TV packages and internet connections. The mandatory fee to these local cable networks may act as a disincentive for Danish households to switch to these fibre networks, or for the energy companies to roll-out their networks in these municipalities.

#### New Universal Service rules cause concern

In 2008, new Danish legislation on the universal services (the basic telecoms services that must be available to all consumers, like directory enquiries) changed the way in which the providers of such key services are designated. The Bill identified four groups of services (for example, one group concerns the directory services, another one concerns the maritime distress and safety communication services) that should be available to all consumers. The Danish incumbent operator was designated for all groups of services. There are concerns as to whether the mechanism that compensates any potential costs for providing these universal services complies with EU rules.

TELECOMS SECTOR'S KEY FIGURES	EU	Denmark
Total value of sector (2007)	€356.85 billion	€5.97 billion
Nominal growth of sector (2007)	2%	9.75%
Total capital investment (2007)	€52 billion	€1.23 billion
Fixed broadband penetration rate January 2009	22.9%	37.3%
Mobile broadband (data cards) penetration rate January 2009	2.8%	4.7%
Mobile penetration rate	119%	120%
Average mobile termination rates	€0.0855	€0.0859
Incumbent's fixed broadband market share January 2009	45.6%	57.3%
Incumbent's market share in direct fixed access	81.4%	79.0%
Total mobile ported numbers in 2008 only	14 million	293 657
Total fixed ported numbers in 2008 only	6.5 million	92 706
Average/typical broadband consumer price*	€36.89/month	€30.14/month
Average/typical mobile communication consumer price**	€19.49/month	€11.60/month
Average/typical fixed telephony communication consumer price***	€36.13/month	€39.73/month

<sup>\*</sup> Median basket price for broadband (2-4Mbps offers) using purchasing power parity (PPP)

#### For further information

Full report on the Internet: <a href="http://ec.europa.eu/information">http://ec.europa.eu/information</a> society/policy/ecomm/library/communications reports/annualreports/14th/index en.htm

More information on telecoms: http://ec.europa.eu/ecomm

**Europe's Information Society Thematic Portal:** <a href="http://ec.europa.eu/information society">http://ec.europa.eu/information society</a> <a href="Information Society">Information Desk: Email: infso-desk@ec.europa.eu</a>

<sup>\*\*</sup> Average "medium usage pre&post-paid 2006 OECD basket" price for mobile communications. The figure for Denmark refers to the cheapest available offer of the two largest operators on the market

<sup>\*\*\*</sup> Average "medium usage residential 2006 OECD basket" price for fixed voice communications