Post- og teletilsynet

The role of facilities-based competition with fibre

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Overview

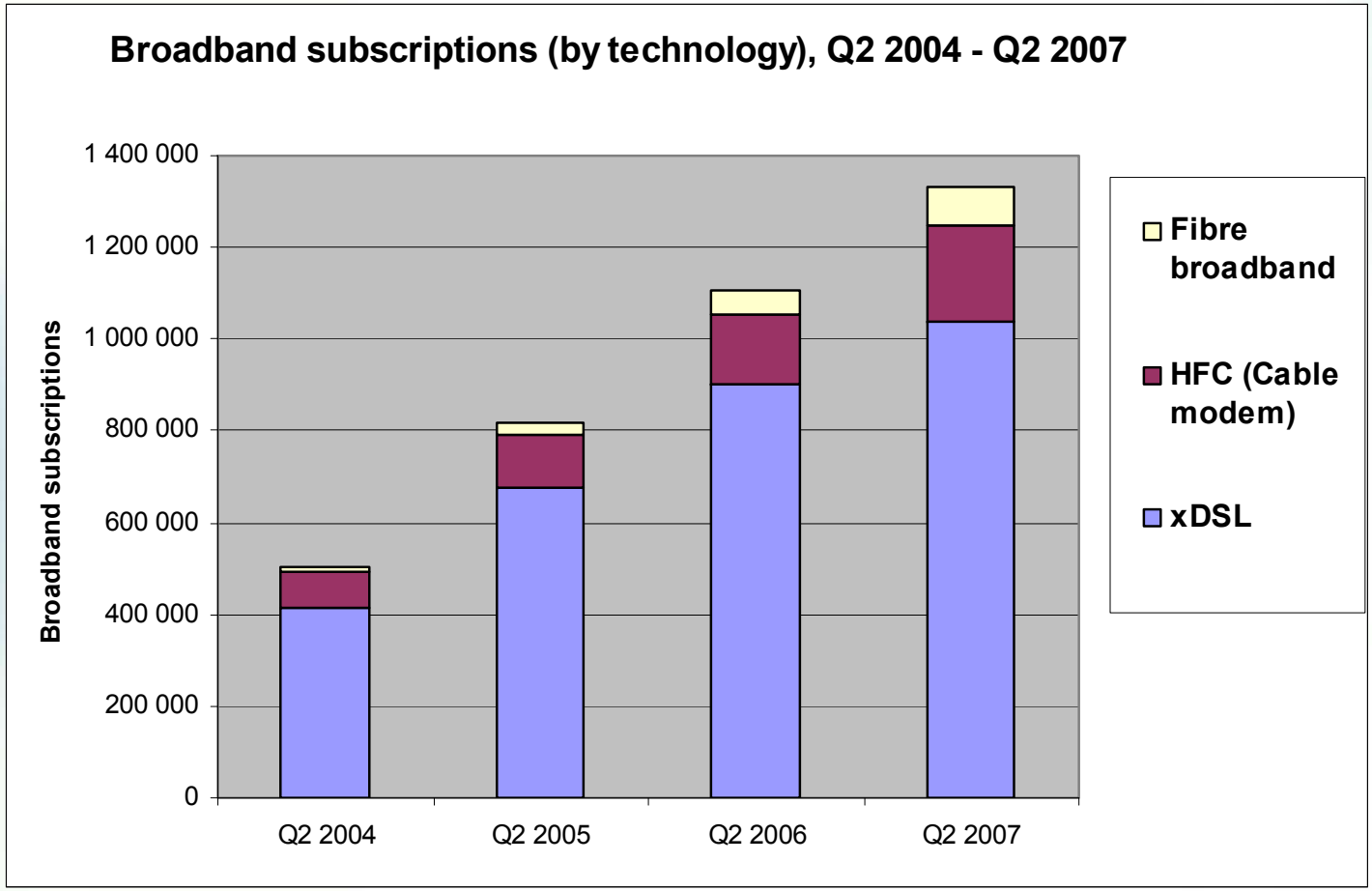
- Statistics – The development of fibre broadband in Norway
- Fibre broadband deployment in Norway today – Who, where and how?
- Promoting competition through regulation
- Summary

Statistics – The development of fibre broadband in Norway

Key figures

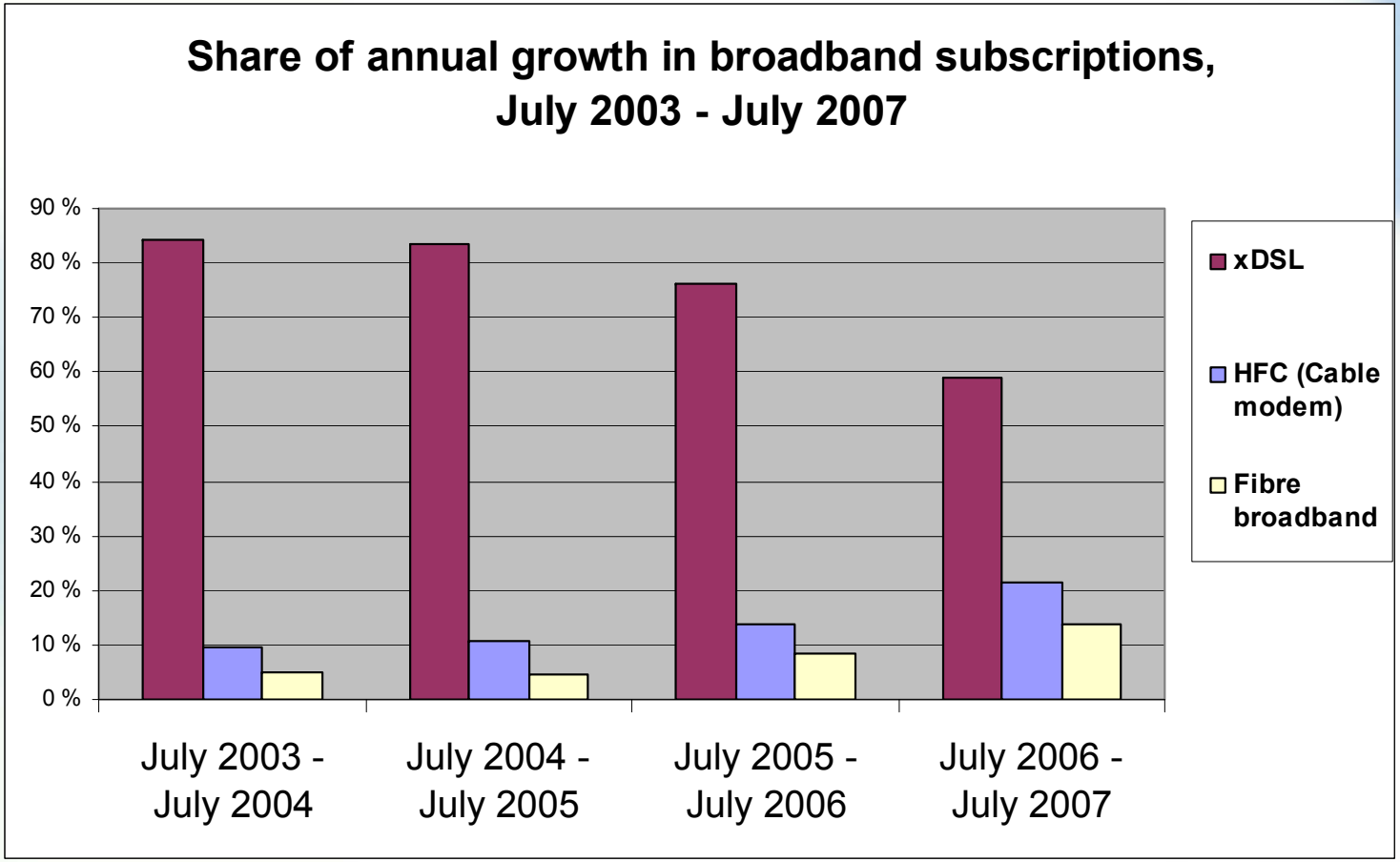
- Fibre broadband subscribers in Norway
  - Q2 2004: 12 000 (of a total 517 000 BB subscribers)
  - Q2 2007: 83 000 (of a total 1,36 mill. BB subscribers)
  - From Q2 2004 to Q2 2007, the share of fibre broadband subscriptions increased from 2,3 % to 6 %.
- Broadband providers in Norway (all technologies):
  - Q2 2004: 116
  - Q2 2007: 161

Statistics – The development of fibre broadband in Norway



Source: ”The Norwegian Electronic Communications Market, 1st half 2007”, NPT

Statistics – The development of fibre broadband in Norway



Source: ”The Norwegian Electronic Communications Market, 1st half 2007”, NPT

Statistics – The development of fibre broadband in Norway

Statistics Norway, Q4 2007:

- 1,47 mill. broadband subscriptions at the end of 2007 (all technologies)
  - Both residential and business subscriptions included (90/10 split)
- Broadband penetration (by household), Q4 2007: **64,2 %** (Q3: 61,5 %, Q2: 59,6 %)
- Share of BB subscriptions with capacities > 8 Mbit/s, Q4 2007: **9 %** (Q3: 6 %, Q2: 6 %)

Fibre broadband deployment in Norway today – Who, where, and how?

Who are deploying fibre access networks in Norway?

- Mainly power utility companies (or subsidiaries of such)
  - E.g. Lyse Tele, BKK, NTE, Skagerak Fibernett, Hafslund Telekom, Troms Kraft, LOS Bynett
- Telenor (the Norwegian incumbent operator) has announced FTTH deployments in 2008-2009

Fibre broadband deployment in Norway today – Who, where, and how?

Where are fibre access networks deployed? Is there a clear pattern?

- The major cities (and surrounding areas)
  - Oslo, Bergen, Trondheim, Stavanger, Tromsø, Kristiansand
- But: Many initiatives in less densely populated municipalities

→ often through partnership with major fibre operators like e.g. Lyse Tele (Lyse Tele has more than 30 regional partners nationwide)

Fibre broadband deployment in Norway today – Who, where, and how?

How do fibre operators approach the market?

- Mainly two models:

  1. The operator is vertically integrated (e.g. Lyse Tele with partners), providing not only fiber access, but also services (e.g. Internet access, IP-TV, telephony, etc.)

  2. The operator offers an ”open access” network (e.g. members of Bynettforeningen – an urban networks association), mainly providing fibre access, while opening the network for others to provide services

  So far, the first model has been dominant in Norway

Promoting competition through regulation

- The Electronic Communications Act (2003-07-04):
  - § 1-1. Purpose: The purpose of the Act is to secure good, reasonably priced and future-oriented electronic communications services for the users throughout the country through efficient use of society's resources by facilitating sustainable competition, as well as stimulating industrial development and innovation.

- Todays regulation of the wholesale broadband markets (LLU and bitstream access) is based on the European Commission's Recommendation on Relevant Markets of February 2003
  - Access to the incumbent's copper access network is regulated

Promoting competition through regulation

- Price for access to copper local loops is regulated in Norway
  - The regulated price shall give incentives to utilize the existing copper access network
    - LLU-penetration in Norway is ~ 30 % (among the highest in Europe)
  - At the same time, there must be incentives left for deployment of alternative access networks
    - Fibre broadband penetration in Norway is now > 6 % (4th highest in Europe, according to OECD statistics)
- In December 2007, Telenor voluntarily lowered the price for LLU-access (below the regulated price cap)
  - Facing the competition from alternative access networks?

Promoting competition through regulation

- Revised Commission Recommendation (December 2007):
  - New definition of the LLU-market no longer excludes non-copper local loops and sub-loops

➢ Non-copper access networks have become a more significant part of the ”equation” when considering the future level of regulation of the wholesale broadband markets

Promoting competition through regulation

In case of SMP-status:

- Physical unbundling of non-copper loops
  → technical challenges, e.g. for certain fibre architectures and cable networks

- Obligation of offering a ”bitstream” access product may be a solution with regard to non-copper access networks

Promoting competition through regulation

Issues facing NPT (and other NRAs)

- Geographic differences in terms of competition
  → Regional markets?
  → Differentiation of remedies?
- Access to the incumbent's (future) FTTH deployments - subject to regulation or not?
  – Can influence on incumbent's willingness to invest in fibre access networks
- Duct-/pole access, rights of way

Summary

- The share of fibre broadband has grown significantly since 2004, and further growth is expected
- The relatively high number of fibre broadband providers in Norway indicates strong willingness to invest in fibre access infrastructure
- Fibre investments are taking place not only in major cities, but also in less densely populated municipalities
- Even though the definitions of the wholesale broadband markets are widened, NPT is nevertheless committed to the principle of minimum regulation → regulation only if necessary