

# Competition and Regulation in the Nordic Mobile Markets

The report by the Nordic NRAs, 'Competition and Regulation in the Nordic Mobile Markets' (2006) provides good and solid information on the national Nordic markets for traditional mobile services, voice telephony and SMS. However, two obvious issues are left untouched. The first relates to whether there is, or rather should be, a Nordic market, or whether we are dealing with five separate national markets. The second concerns new data services in the mobile field.



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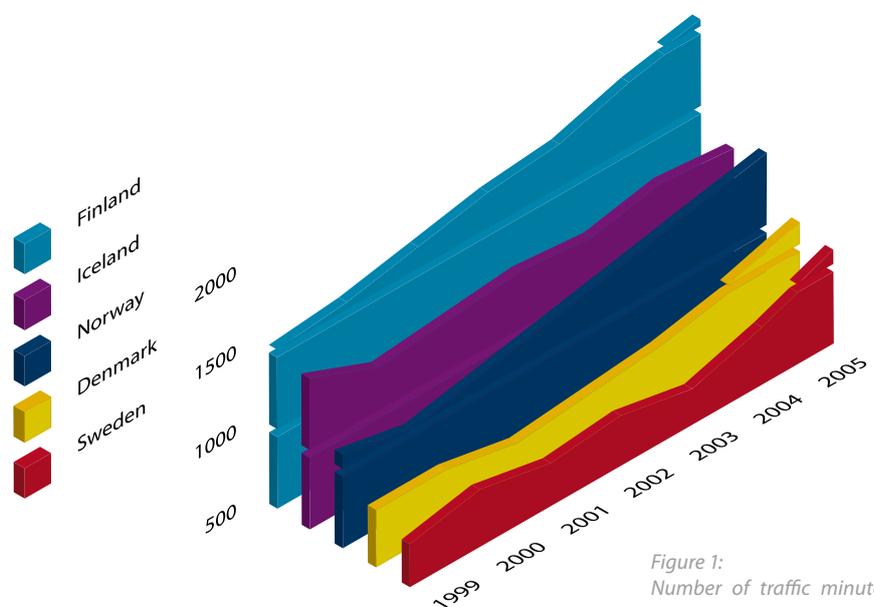


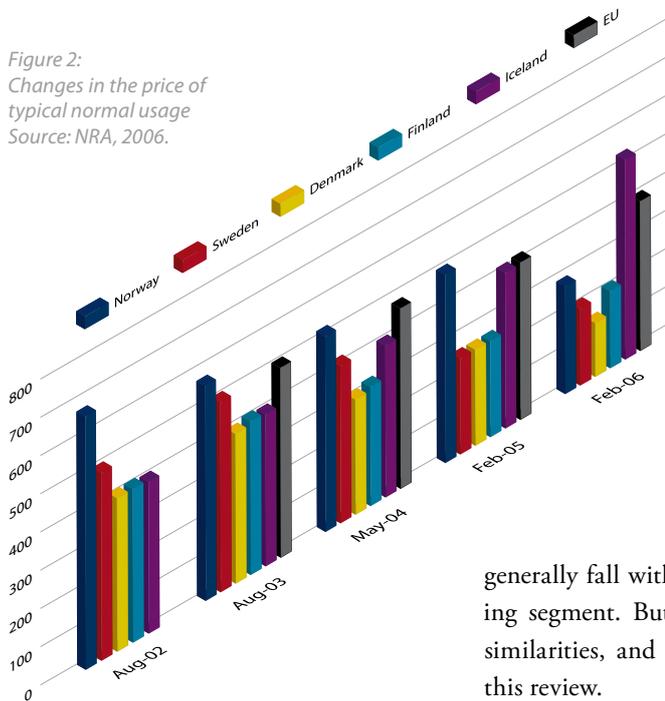
Figure 1:  
Number of traffic minutes  
per customer per year  
Source: NRA, 2006.

During the past few years, a number of reports have been released on developments in the use of and markets for information and communication technologies (ICT) in the Nordic and Baltic countries. In 2004, the Nordic National Competition Authorities (NCA) published 'Telecompetition: Towards a Single Nordic Market for Telecommunication Services?' (NCA, 2004). In 2005, the Nordic Council of Ministers published 'Indicators for the Information Society in the Baltic Region' (Norden, 2005a) and

'Nordic Information Society Statistics' (Norden, 2005b). In September 2006, the Nordic Telecommunication National Regulatory Authorities (NRA) published a report on 'Competition and Regulation in the Nordic Mobile Markets' (NRA, 2006). In addition, four of the five Nordic NRAs recently published a report on 'Broadband Prices in the Nordic Countries 2006' (NRA, 2007). This present review focuses on the report on mobile markets (NRA, 2006).

'Competition and Regulation in the Nordic Mobile Markets' is concerned with the similarities and differences between the five Nordic countries in the mobile field. It is a descriptive report, purporting to include only overall analyses and does not aim at leading up to a conclusion. It simply presents the overall status and development of the mobile service markets in the five countries and then focuses on two wholesale market areas: access to mobile networks and mobile termination (markets 15 and 16

Figure 2:  
Changes in the price of  
typical normal usage  
Source: NRA, 2006.



on the list of product markets designated by the European Commission for competition analyses).

## SIMILARITIES AND DIFFERENCES

**Denmark, Finland, Iceland, Norway** and Sweden are the five Nordic countries. Among them, Denmark, Finland and Norway are of almost equal population size (around five million), while Sweden is somewhat larger (around nine million) and Iceland considerably smaller (around 300,000). While there is a tradition of cooperation between the Nordic countries, which for instance resulted in the first generation Nordic Mobile Telephone (NMT) system in the 1980s, and while there are many similarities of all kinds between the five countries, there are also many differences – including differences in mobile services. In international comparisons of penetration, prices, etc., the Nordic countries

generally fall within the better performing segment. But there are indeed dissimilarities, and these are the focus of this review.

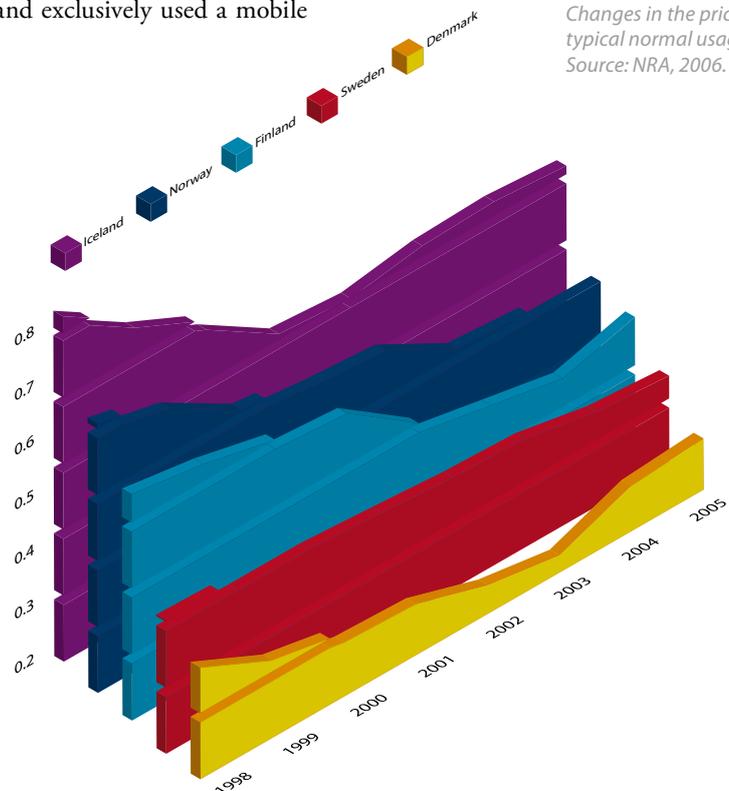
**While mobile penetration is** around 100% in all five Nordic countries, one of the most striking differences is that Finland has a much larger share of persons using a mobile phone exclusively – i.e. not having a fixed telephone. At the end of 2005, 47% of all persons aged 15-74 in Finland exclusively used a mobile

phone. Thus, the number of traffic minutes per mobile customer is considerably higher in Finland than in the other Nordic countries (see Figure 1).

**This is not primarily** a result of low prices in Finland. In fact, prices in Denmark are marginally lower than in Finland (see Figure 2). Iceland has significantly higher prices, although the increase in the price comparison has been partly the result of changes in the exchange rate. Norway has witnessed decreasing prices lately, but is still considerably more expensive than Denmark.

**Concerning the other widely** used GSM service, short messaging service (SMS), Denmark is clearly in the lead regarding the number of SMS messages sent per customer. In 2005, around

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1,500 SMS messages per customer per year were sent in Denmark, as compared to Sweden, where the figure was approximately 200. The major reason indicated in the report is that SMS messages in a number of cases are part of subscription packages in Denmark, whereas SMS charges have been higher in Sweden than in the other Nordic countries.

With respect to price discrepancies in general, the main explanation given in

to mobile networks (market 15) and mobile termination (market 16). Access to mobile networks is important for developing a competitive environment based on national roaming between national operators as well as access to network facilities for mobile virtual network operators (MVNOs) and service providers (SPs). Mobile termination rates are also wholesale rates but primarily affect the end-users via their effects on end-user prices for calling mobile phones.

solidation in the Nordic markets, first and foremost in Denmark, where the three formerly independent large SPs, Telmore, CBB Mobil and debitel, have been taken over by TDC, Sonofon and Telia respectively.

In the market for mobile termination, there are clearly regulatory implications of the new EU regulatory framework. Under the new EU framework, all mobile network operators (MNOs) are reg-

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the report is that competition is strongest in the Danish market. When analysing market concentration with a simple Herfindahl-Hirschman Index (HHI), Denmark comes out as the country with the lowest market concentration (see Figure 3) and therefore, it is assumed, the highest level of competition.

The only Nordic country mobile market that is differentiated in any significant way in terms of market concentration is Iceland where it is higher. This is not surprising, as the population is small and does not allow for more than a couple of network operators.

## MARKETS 15 AND 16

The NRA report is not only concerned with retail markets but focuses specifically on two wholesale markets: access

The report finds that the new EU regulatory framework, which was generally implemented in 2003, has resulted in the abolishment of regulation in the area of access to mobile networks in three of the Nordic countries: Denmark, Finland and Sweden. In Iceland, regulation has increased for both access regulation and price regulation to cover not only national roaming but also access for MVNOs and SPs. In Norway, the level of regulation has basically been maintained.

In 2005, the total number of MVNOs and SPs in Sweden, Denmark and Norway was 23, 21 and 19 respectively, while there were seven in Finland and none in Iceland. Since 1999, the number of MVNOs and especially SPs has increased significantly. However, during the past few years there has been a con-

ulated, as they are considered as having a 100% market share on the termination in their own network. During the past five years, mobile termination rates have decreased considerably in Finland and Sweden, while termination charges have decreased only slightly in Denmark and are more than 50% higher than in Finland, Sweden and Norway. This is the result of hitherto non-regulated termination charges in Denmark. However, the expectation in all Nordic countries is that with the new EU regulatory framework requirements, termination charges will come down further in the coming years.

## MISSING ISSUES

The Nordic NRAs' report provides good and solid information on the national markets for traditional mo-

mobile services, voice telephony and SMS. However, two obvious issues are not touched upon. The first goes to the issue of whether there is, or rather should be, a Nordic market, or whether we are dealing with five separate national markets. The second concerns new data services in the mobile field.

**3G operators are included** in the figures reported. However, 3G is not specifically addressed. Obvious questions

Denmark, three of the MNOs/MVNOs are referred to as 'Nordic operators'. The 'Nordic market' question was addressed in the above-mentioned 2004 report by the National Competition Authorities (NCA, 2004), but the NRA report failed to further explore the issue.

**Essentially, the report stays** within the framework of its title regarding Nordic mobile markets (in the plural form). However, the fact that regula-



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concern differences in development of 3G in the national Nordic markets and why it is taking so long to reach any sizeable diffusion of 3G. Also, missing is any discussion of data services, which can be delivered via general packet radio service (GPRS) but for which 3G clearly has bandwidth advantages. A clear conclusion from the report is that the mobile market is shrinking with decreasing average revenue per user (ARPU) for voice telephony and SMS services – which is precisely one of the reasons why markets for new data services are interesting for mobile operators and service providers in the field.

**The Nordic market issue** is only dealt with in side-remarks regarding the fact that the “various NRAs meet the same Nordic operators,” as stated in the report (NRA, 2006). For Sweden, Norway and

tors meet the same operators in different national markets in different roles certainly warrants mention. In one country, they are the incumbent and act as such concerning access to their facilities. In other countries, they act as alternative newcomers, and are critical of the local incumbent. In a report concerning the interplay between markets and regulation, this could be an important question.

**A final comment is** that for a future report it would be useful to also undertake a comparison of the other countries around the Baltic Sea. This was done for the report issued by the Nordic Council of Ministers on information society indicators. It would also be worthwhile to compare the mobile service industries of the Nordic countries with the other countries in the Baltic Sea area. ●

## REFERENCES

**Nordic Council of Ministers, 2005a.** Indicators for the Information Society in the Baltic Region. TemaNord 2005:577.

**Nordic Council of Ministers, 2005b.** Nordic Information Society Statistics. TemaNord 2005:562

**Nordic National Competition Authorities (NCA), 2004.** Telecompetition: Towards a Single Nordic Market for Telecommunication Services? Nordic National Competition Authorities Report no. 1/2004.

**Nordic Telecommunication National Regulatory Authorities (NRA), 2006.** Competition and Regulation in the Nordic Mobile Markets. [http://www.ficora.fi/englanti/document/Competition\\_and\\_Regulation\\_in\\_the\\_NordicMobileMarkets.pdf](http://www.ficora.fi/englanti/document/Competition_and_Regulation_in_the_NordicMobileMarkets.pdf)

**Nordic National Regulatory Authorities (NRA), 2007.** Broadband Prices in the Nordic Countries in 2006. Stockholm: PTS-ER-2007