



Strategy for the Promotion of Electronic Commerce in the Nordic Countries

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The Nordic co-operation on industrial policy

The Nordic co-operation on industrial policy covers the issues of industrial development, improvement of the Nordic countries' industrial competitiveness, industrial research and development, technical norms and control mechanisms. The Nordic ministers for industry are in charge of this co-operation. A committee of senior civil servants on industrial co-operation prepares and organises the co-operation.

The Nordic Council of Ministers

was established in 1971. It submits proposals on co-operation between the governments of the five Nordic countries to the Nordic Council, implements the Council's recommendations and reports on results, while directing the work carried out in the targeted areas. The Prime Ministers of the five Nordic countries assume overall responsibility for the co-operation measures, which are co-ordinated by the ministers for co-operation and the Nordic Co-operation committee. The composition of the Council of Ministers varies, depending on the nature of the issue to be treated.

The Nordic Council

was formed in 1952 to promote co-operation between the parliaments and governments of Denmark, Iceland, Norway and Sweden. Finland joined in 1955. At the sessions held by the Council, representatives from the Faroe Islands and Greenland form part of the Danish delegation, while Åland is represented on the Finnish delegation. The Council consists of 87 elected members - all of whom are members of parliament. The Nordic Council takes initiatives, acts in a consultative capacity and monitors co-operation measures. The Council operates via its institutions: the Plenary Assembly, the Presidium and standing committees.

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The trade and industry and consumer sectors' ad hoc working group for electronic commerce and other IT-related issues

History

In 1999, the Nordic Council of Ministers' Nordic Committee of Senior Officials for Trade and Industry Issues set up an ad hoc working group for electronic commerce and other IT-related issues. In December 2001, the working group became a joint working group for the Nordic Committees of Senior Officials for Trade and Industry Issues and Consumer Issues, and its mandate was extended to 31 December 2003. This meant that representatives for consumer issues joined the working group. In the period 2001-2003, the Nordic Industrial Fund functioned as the secretariat for the working group.

Object and Objectives

The object of the working group has been to ensure the further development of the Nordic co-operation on electronic commerce based on consumer interests and trade and industry policy objectives. An overall objective has been to ensure consumer confidence in e-commerce while taking into consideration IT issues relating to trade and industry as well.

The working group has had the role of initiator, consultant and co-ordinator in relation to the Nordic Committee of Senior Officials for Trade and Industry Issues and the Nordic Committee of Senior Officials for Consumer Issues.

Objectives:

- To exchange information about electronic commerce (experience and data from national initiatives, reports, studies, etc.).
- To initiate and implement projects of relevance to consumers and trade and industry in the Nordic countries in the field of electronic commerce.
- To discuss other IT issues relating to trade and industry and consumers.

Members

The Nordic countries and the autonomous territories have each been represented in the working group by a representative from both the consumer sector and the trade and industry sector. The Secretariat for the Nordic Council of Ministers has participated as much as possible in the meetings of the working group. The chairmanship of the working group has followed the chairmanship of the Nordic Council of Ministers.

Sofia Holmgren (Swedish Ministry of Industry, Employment and Communications, Stockholm, Chairwoman 2003)

Yvonne Stein (Swedish Ministry of Agriculture, Food and Fisheries, Stockholm, Deputy Chairwoman 2003)

Cecilie Krogsæter (Norwegian Ministry of Trade and Industry, Oslo)

Geir Jørgensen (Norwegian Ministry of Children and Family Affairs, Oslo)

Antti Eskola (Finnish Ministry of Trade and Industry, Helsinki)

Ari Luukinen (Finnish Consumer Agency, Helsinki)

Søren Jensen (Danish Ministry for Science, Technology and Development, Copenhagen)

Susanne Bo Christensen (National Consumer Agency of Denmark, Copenhagen)

Tryggvi Axelsson (Icelandic Ministry of Commerce, Reykjavik)

Jonina S. Larusdottir (Icelandic Ministry of Commerce, Reykjavik)

Jørgen Emborg Pedersen (Danish Greenland Home Rule Office, Copenhagen)

Robert von Pfaler (Åland Centre of Technology, Mariehamn)

Martin Wilisoo (Nordic Industrial Fund, Oslo, secretary 2001 – 2003)

Stefan Kovacs (Nordic Council of Ministers, Copenhagen, contact person)

After the termination of the working group's mandate as at the turn of the year 2003-2004, the working group has continued as an ad hoc network for Nordic issues relating to e-commerce and e-business.

Sammanfattning

Den nordiska ad hoc arbetsgruppen för e-handel och andra IT-relaterade frågor fick i april 2002 i uppdrag av de nordiska konsument- och näringsministrarna att utarbeta en nordisk e-handelsstrategi. Arbetsgruppen har varit gemensam för ministerråden för konsument- respektive näringspolitik och således behandlar strategin båda dessa politikområden.¹

De nordiska länderna ligger i internationell jämförelse långt framme när det gäller tillgång till och användning av IT och har goda förutsättningar för effektiv användning av e-handel. Mer än 70 procent av de nordiska invånarna har tillgång till en dator och cirka 60 procent har tillgång till Internet i sin bostad. Nästan alla nordiska företag använder datorer och över 90 procent har tillgång till Internet. Ungefär hälften av de nordiska företagen köper varor och tjänster över Internet, men endast cirka 10 procent säljer via Internet. Den totala nordiska Internetförsäljningen 2001 är beräknad till 15 miljarder euro, medan EDI-handeln stod för 69 miljarder euro. Den totala elektroniska försäljningen motsvarar cirka 10 procent av de nordiska företagens omsättning, vilket betyder att det ännu finns en outnyttjad potential för ökad nordisk e-handel, särskilt via Internet.²

De frågor som arbetsgruppen identifierat som mest relevanta för främjandet av e-handel inom konsumentområdet är synliggörandet av nyttan med e-handel samt konsumenters förtroende för e-handel. Inom det näringspolitiska området anser arbetsgruppen att e-handel bör ses som ett steg i utvecklingen mot e-affärer, d.v.s. effektivt utnyttjande av IT i företagets affärsprocesser i vidare bemärkelse än enbart inköp och försäljning. För främjandet av e-affärer ur ett företagsperspektiv är det IT-kompetens, standardisering och interoperabilitet samt efterfrågan och statens roll som arbetsgruppen valt att fokusera på. Strategin beskriver vart och ett av dessa nämnda områden samt ger rekommendationer inom respektive område till nordiska ministerrådet.

E-handel kan innebära många fördelar för konsumenterna. Att e-handla kan vara enklare, snabbare och billigare än att handla på traditionellt sätt. Det förutsätts dock att e-handelsföretaget tillhandahåller tillförlitlig, lättåtkomlig och lättförståelig information. Konsumenten bör vara tillräckligt informerad om varan eller tjänsten samt om köpvillkor, pris, frakt m.m. Användarvänligheten på webbsidan är av stor betydelse för kundens val av köpställe. Det är därför viktigt att utvecklingen av e-handelslösningar i ökad utsträckning blir användarorienterad.

Konsumenternas förtroende för e-handel är avgörande för e-handels utveckling. Det är främst förtroendet för näringsidkaren bakom en webbplats som är avgörande, särskilt

¹ Den nordiska e-handelsstrategin finns tillgänglig på Nordiska ministerrådets webbplats www.norden.org, under samarbetsområdena Konsument respektive Näringsliv. Där finns också arbetsgruppens rapporter om självreglering, statliga elektroniska tjänster till företag, faktorer för framgångsrik e-handel, elektroniska betalningslösningar samt små och medelstora företags situation vid e-handel tillgängliga.

² The Economic Impact of ICT, OECD 2004.

med avseende på betalnings- och leveransvillkor samt reklimations- och returneringsrutiner, även om den tekniska säkerheten också måste vara tillräcklig. Arbetsgruppens rekommendationer på konsumentområdet tar främst sikte på informationsinsatser till konsumenterna och näringsidkare om vilka rättigheter och skyldigheter de har samt uppmuntrar till att samarbetsprojekt skapas på området mellan olika intressenter i de nordiska länderna. Särskilt barns och ungdomars ställning på e-handelsmarknaden behöver stärkas och deras utbildning för att bli kritiska internetanvändare ökas, eftersom de i större utsträckning än vuxna riskerar att vilseledas. En ökad IT- och e-affärskompetens är nödvändig för att fler företag, särskilt mindre, skall lyckas med e-affärer. Särskilt företagsledningens förståelse för och förmåga att utnyttja IT som ett effektivt affärsverktyg är viktig, eftersom det är ledningen som fattar beslut om investeringar. Det är också företagsledningen som initierar organisationsförändringar, något som ofta är en förutsättning för lyckade e-affärsinvesteringar. Satsningar på kontinuerlig kompetensutveckling inom företaget är nödvändiga för att den potential som e-affärer erbjuder skall kunna utnyttjas.

Bristen på standardisering och interoperabilitet mellan olika system och program för e-affärer är ett problem för särskilt de mindre företagen. De riskerar att tvingas investera i flera olika lösningar för att kunna leva upp till sina olika kunders varierande krav, vilket kan bli mycket kostsamt. Dessutom kan systemen visa sig vara mindre ändamålsenliga för dessa små företag. Staten har en viktig roll som förebild när det gäller användning av IT- och e-handel. Den offentliga sektorn är en stor och viktig kund på de nordiska marknaderna och bör därför eftersträva en ökad elektronisk upphandling.

Arbetsgruppens rekommendationer ur ett företagsperspektiv fokuserar, liksom ur konsumentperspektivet, på informations- och utbildningsinsatser för att öka insikten om nyttan med e-affärer och kompetensen att kunna utnyttja dess potential.

Att följa utvecklingen på nämnda områden, uppmuntra till utbyte av erfarenheter och goda exempel är också viktiga insatser som med fördel kan genomföras på nordisk nivå inom både konsument- och näringslivsområdet.

Yhteenveto

Pohjoismaiden ministerineuvoston elinkeinopolitiikan komitean ja kuluttaja-asiain komitean yhteinen *sähköisen kaupankäynnin ja muiden tieto- ja viestintäteknologia-asioiden* määräaikainen virkamiestyöryhmä sai huhtikuussa 2002 tehtäväkseen laatia pohjoismaisen sähköisen kaupankäynnin strategian. Työryhmä on muotoillut strategiaa pääasiassa elinkeino- ja kuluttajapolitiikan lähtökohdista.³

Pohjoismaat sijoittuvat hyvin tieto- ja viestintäteknologian käyttömahdollisuuksia ja käyttöä tarkastelevissa kansainvälisissä vertailuissa. Yli 70 prosentilla pohjoismaiden väestöstä on tietokone ja noin 60 prosentilla kansalaisista on asunnossaan mahdollisuus internet-yhteyteen. Pohjoismaissa lähes kaikki yritykset käyttävät tietokoneita ja yli 90 prosentilla yrityksistä on mahdollisuus internet-yhteyteen. Noin puolet pohjoismaisista yrityksistä ostaa tavaroita tai palveluja verkon kautta, mutta vain 10 prosenttia harjoittaa verkkomyyntiä. Pohjoismaiden sähköisessä kaupankäynnissä myynnin kokonaisarvoksi vuonna 2001 arvioitiin 15 miljardia euroa ja pääosin muiden tietoverkkojen kuin internetin kautta tapahtuvan EDI-kaupan arvoksi 69 miljardia euroa. EDI- ja internetkauppa huomioiden pohjoismaisten yritysten liikevaihdosta noin 10 prosenttia muodostuu sähköisestä kaupankäynnistä. Sähköisellä kaupankäynnillä on siis pohjoismaissakin paljon kasvun varaa, erityisesti internetin kautta tapahtuvan kaupankäynnin osalta.

Työryhmä katsoo, että sähköisen, kuluttajille suunnatun kaupankäynnin edistämisen kannalta keskeistä on osoittaa kuluttajille sähköisen kaupankäynnin hyödyt ja vahvistaa kuluttajien luottamusta sähköistä kaupankäyntiä kohtaan. Elinkeinopolitiikan näkökulmasta yritysten sähköinen kaupankäynti on osa sähköistä liiketoimintaa, millä tarkoitetaan tieto- ja viestintäteknologian tehokasta hyödyntämistä yritysten muissakin liiketoiminnan prosesseissa kuin osto- ja myyntitoiminnassa. Yritysten sähköisen liiketoiminnan edistämisen tärkeimmiksi kehittämiskohteiksi työryhmä on todennut tieto- ja viestintäteknologian hyödyntämiseen tarvittavan osaamisen, standardoinnin ja yhteentoimivuuden sekä valtion ja muun julkissektorin roolin voimistamisen tieto- ja viestintäteknologian käyttäjänä. Pohjoismaiden sähköisen kaupankäynnin strategiassa kuvailaan näitä kehittämisalueita ja esitetään suosituksia ministerineuvostolle. Yhteenveto suosituksista on kappaleessa 4.

Sähköinen kaupankäynti tarjoaa monia etuja kuluttajille. Verkko-ostosten teko voi olla yksinkertaisempaa, nopeampaa ja edullisempaa kuin perinteinen kauppa. Edellytyksenä verkkokaupan menestykselle on lisäksi kuitenkin, että verkkokaupan pitäjät tarjoavat kuluttajille riittävästi helppokäyttöisesti luotettavaa ja ymmärrettävää tietoa myytävänä olevista tavaroista ja palveluista, niiden hinnoista, toimitusehdoista jne. Verkkokaupan käyttäjystävällisyys vaikuttaa merkittävästi kuluttajien ostospaikkavalintoihin. Sen

³ Pohjoismaiden sähköisen kaupankäynnin edistämistä strategia on myös pohjoismaiden ministerineuvoston verkkosivujen (www.norden.org) kuluttajia ja elinkeinopolitiikkaa käsittelevissä osioissa. Näille sivuille on koottu myös työryhmän raportit vapaaehtoisesta sääntelystä, julkishallinnon sähköisistä palveluista yrityksille, sähköisen kaupankäynnin menestystekijöistä sekä pienten ja keskisuurten yritysten sähköisestä liiketoiminnasta.

vuoksi on tärkeää, että sähköisen kaupankäynnin ratkaisuja kehitetään käyttäjien tarpeista lähtien.

Kuluttajien luottamus verkkokauppaa harjoittavia yrityksiä kohtaan on ratkaisevassa asemassa kehitettäessä sähköistä kuluttajakauppaa. Kuluttajien on tärkeää tietää maksu- ja toimitusehdoista sekä valitus- ja palautuskäytännöstä samalla kun heidän on voitava luottaa siihen, että verkkokaupan tietoturvallisuus on varmistettu. Varsinkin lasten ja nuorten asemaa sähköisessä kaupankäynnissä tulee vahvistaa, koska he ovat aikuisia alttiimpia verkkokaupan riskeille.

Työryhmän sähköistä kuluttajakauppaa koskevat suositukset painottavat tiedottamista osapuolten oikeuksista ja velvollisuuksista sekä kuluttajille että verkkokaupan pitäjille. Työryhmä suosittelee, että kuluttajakaupan edistämiseksi käynnistettäisiin pohjoismaisia yhteistyöhankkeita.

Jotta nykyistä useammat yritykset, varsinkin pienet ja keskisuuret yritykset nopeuttaisivat siirtymistään sähköiseen liiketoimintaan, on välttämätöntä että yritysten valmiuksia ja taitoja hyödyntää tieto- ja viestintäteknologiaa parannetaan. Erityisesti yritysjohton tulisi ymmärtää tieto- ja viestintäteknologian merkitys liiketoiminnalle, koska juuri yritysjohto päättää investoinneista. Investointeja tarvitaan paitsi teknologiaan, myös osamiseen. Yritysjohto myös yleensä tekee aloitteen organisaation muutoksista, jotka usein ovat edellytyksenä menestykselliselle sähköiselle liiketoiminnalle.

Puutteellinen standardointi ja yhteentoimivuus järjestelmien ja sovellusten välillä muodostaa esteen sähköisen liiketoiminnan kasvulle. Ongelma koskee erityisesti pieniä ja keskisuuria yrityksiä, jotka saattavat joutua sijoittamaan useampiin sähköisen kaupankäynnin ratkaisuihin tai käyttämään kalliita muunnospalveluita voidakseen täyttää useamman asiakkaansa vaatimukset samanaikaisesti. Toisinaan vaaditut järjestelmät voivat olla sopimattomia pienille yrityksille.

Julkinen sektori toimii osaltaan tieto- ja viestintäteknologian hyödyntämisen ja sähköisen kaupankäynnin esikuvana. Julkinen sektori on tärkeä asiakas pohjoismaiden sähköisen kaupankäynnin markkinoilla, ja sen tulisi siirtää kasvava osuus julkisista hankinnoista toteutettavaksi sähköisenä kaupankäyntinä.

Työryhmän suosituksissa yritysten, kuten kuluttajienkin osalta korostetaan tiedotukseen ja koulutukseen panostamista, jotta sähköisen liiketoiminnan edut tiedostettaisiin nykyistä laajemmin ja jotta sekä kuluttajilla että yrityksillä olisi riittävät taidot näiden etujen hyödyntämiseen.

Työryhmä katsoo, että yhteistyöstä kehityksen seuraamisessa, kokemusten vaihdosta ja tiedosta hyvistä käytännöistä pohjoismaisella tasolla voi olla hyötyä yhtä lailla kuluttajasektorilla kuin elinkeinopolitiikan alueella.

Samantekt

Norrænu neytendamála- og viðskiptaráðherrarnir fólu í apríl 2002 sérstökum starfshópi um rafræn viðskipti og önnur mál tengd upplýsingatækni að setja saman norræna áætlun um rafræn viðskipti. Starfshópurinn heyrir undir báðar ráðherranefndirnar og þess vegna nær áætlunin yfir bæði þessi svið.⁴

Norrænu ríkin standa framarlega hvað snertir aðgang að og notkun upplýsingatækninnar við alþjóðlegan samanburð og því ættu að vera góð skilyrði til þess að rafræn viðskipti dafni vel. Yfir 70% íbúa Norðurlanda hafa aðgang að tölvu og um 60% eru nettengdir heima. Svo til öll norræn fyrirtæki nota tölvur og yfir 90% þeirra eru nettengd. Um helmingur norrænna fyrirtækja kaupir vörur og þjónustu á netinu en aðeins um 10% selja í gegnum netið. Talið er að heildarsala norrænna fyrirtækja í gegnum netið árið 2001 hafi numið 15 miljörðum evra miðað við að heildarupphæð rafrænna viðskipta nam 69 miljörðum evra. Rafræna salan var samtals um 10% af veltu norrænu fyrirtækjanna sem þýðir að hægt er að auka rafræn viðskipti á Norðurlöndum enn frekar, sérstaklega í gegnum netið.⁵

Þau atriði sem starfshópurinn telur skipta mestu máli frá sjónarhóli neytenda til að efla rafræn viðskipti er að ábatinn af rafrænum viðskiptum sé sýnilegur og traust neytenda til þeirra. Hvað atvinnulífið snertir telur starfshópurinn að líta verði á rafræn viðskipti sem þrep í þróuninni í átt til pappírslausra viðskipta, þ.e. skilvirkar notkunar fyrirtækja á upplýsingatækni í öllum viðskiptum, ekki aðeins við kaup og sölu. Hvað snertir eflingu rafrænna viðskipta frá sjónarhóli fyrirtækjanna kaus starfshópurinn að að beina kastljósinu að UT-hæfni, stöðlun og samhæfni svo og eftirspurn og hlutverki ríkisins. Í áætluninni er hverju þessara atriða lýst og settar fram tillögur til norrænu ráðherranefndarinnar um hvert þeirra.

Rafræn viðskipti geta falið í sér marga kosti fyrir neytendur. Þau geta verið einfaldari, fljótlegri og ódýrari en að kaupa inn á hefðbundinn hátt. Forsendan er þó að upplýsingar seljandans séu áreiðanlegar, aðgengilegar og auðskildar. Neytandinn á að vera nægilega upplýstur um vöruna eða þjónustuna sem og kaupskilmála, verð, sendingarkostnað o.fl.. Það skiptir miklu máli þegar neytandinn velur söluaðila hve notendavænn vefur hans er. Þess vegna er mikilvægt að lausnir í rafrænum viðskiptum verði í auknum mæli miðaðar við notendur.

Traust neytenda skiptir sköpum fyrir áframhaldandi þróun rafrænna viðskipta. Þótt tæknilegt öryggi skipti máli er það aðallega traustið til þess rekstraraðila, sem rekur viðkomandi vef, sem skiptir máli, sérstaklega hvað snertir greiðslu- og afgreiðsluskilmála svo og kvartanir og skilarétt. Tillögur starfshópsins með tilliti til neytenda

⁴ Norræna áætlunin um rafræn viðskipti er aðgengileg á vef norrænu ráðherranefndarinnar www.norden.org, undir samstarfssviðunum Neytendamál og Viðskipti. Þar er einnig að finna skýrslur vinnuhópsins um innra eftirlit, ríkisrekna rafræna þjónustu við fyrirtæki, mikilvæga þætti til að ná árangri í rafrænum viðskiptum, rafrænar greiðslulausnir og stöðu smárra og meðalstórra fyrirtækja m.t.t. rafrænna viðskipta.

⁵ The Economic Impact of ICT, OECD 2004.

ganga fyrst og fremst út á upplýsingagjöf til neytenda og seljenda um réttindi þeirra og skyldur og að komið verði á fót samstarfsverkefnum á þessu sviði milli ýmissa hagsmunahópa á Norðurlöndum. Sérstaklega verður að styrkja stöðu barna og unglinga með tilliti til rafræna viðskipta og að kenna þeim að vera gagnrýnin við netnotkun þar sem meiri hættu er á að þau verði plötuð en fullorðnir. Einnig er nauðsynlegt að auka hæfni starfsmanna með tilliti til upplýsingatækni og rafræna viðskipta til að fleiri fyrirtæki, sérstaklega smáfyrirtæki, nái árangri hvað snertir rafræn viðskipti. Sérstaklega er mikilvægt að fyrirtækjastjórnir hafi skilning á og getu til þess að nota upplýsingatæknina sem skilvirkt tæki í viðskiptum þar sem það eru þær sem taka ákvarðanir um fjárfestingar. Það eru og stjórnirnar, sem taka frumkvæði að skipulagsbreytingum, sem oft eru forsenda þess að fjárfesting í rafrænum viðskiptum heppnist. Stöðug endurmenntun innan fyrirtækjanna er nauðsynleg til að unnt sé að nýta alla þá möguleika sem rafræn viðskipti hafa upp á að bjóða.

Eitt vandamál, sérstaklega fyrir minni fyrirtæki, er skortur á stöðlun og samhæfni milli mismunandi kerfa og forrita fyrir rafræn viðskipti. Hætt er við að þau neyðist til að fjárfesta í margs konar lausnum til að geta uppfyllt mismunandi kröfur hinna ýmsu viðskiptavina og það getur orðið þeim mjög dýrt. Þar að auki getur sýnt sig að kerfin séu ekki eins hentug og ætlað var fyrir þessi fyrirtæki. Ríkið gegnir mikilvægu hlutverki sem fyrirmynd þegar kemur að notkun upplýsingatækninnar og rafrænum viðskiptum. Hið opinbera er stór og mikilvægur viðskiptavinur á norrænu mörkuðunum og á þess vegna að stefna að auknum rafrænum innkaupum.

Líkt og átti við um neytendur miðast tillögur starfshópsins með tilliti til atvinnulífsins við upplýsingagjöf og fræðslu til að auka skilning á kostum rafræna viðskipta og hæfningu til að nýta alla möguleika þeirra.

Einnig er mikilvægt að fylgjast með þróuninni á þessum sviðum og stuðla að því að menn skiptist á reynslu og dæmum. Þetta er auðvelt í framkvæmd á norrænum vettvangi bæði hvað snertir neytendur og atvinnulífið.

Summary

In April 2002, the Nordic Ministers for Consumer Affairs and Trade and Industry Affairs assigned the task of preparing a Nordic e-commerce strategy to the Nordic ad hoc working group for electronic commerce and other IT-related issues. As the working group was a joint working group for the Councils of Ministers for Consumer Policy and Trade and Industry Policy, the strategy covers both these policy areas.⁶

From an international perspective, the Nordic countries are at the forefront as regards access to and use of IT, and the preconditions for efficient use of e-commerce are good. More than 70 per cent of the inhabitants of the Nordic countries have access to a computer, and approximately 60 per cent have access to the Internet at home. Nearly all Nordic enterprises use computers, and over 90 per cent have access to the Internet. Approximately half of Nordic enterprises purchase goods and services over the Internet, but only approximately 10 per cent sell goods and services via the Internet. Total Nordic Internet sales for 2001 were estimated to amount to 15 billion euro, while EDI trade represented 69 billion euro. Total electronic sales constitute approximately 10 per cent of Nordic enterprises' turnover. There is thus great unutilised potential for increased Nordic e-commerce, particularly via the Internet.⁷

The most pertinent issues identified by the working group for the promotion of e-commerce in the consumer area are strengthening consumer awareness of the benefits of e-commerce together with consumer confidence in e-commerce. Within the area of trade and industry policy, the working group finds that e-commerce should be viewed as a step in the development towards e-business, i.e. efficient utilisation of IT in enterprises' various business processes in a wider sense than merely buying and selling goods and services. In the opinion of the working group, the most important issues for the promotion of e-business from a business perspective are IT competence, standardisation and interoperability, together with demand and the role of the State. This strategy describes each of the above-mentioned areas individually and provides recommendations within the respective areas to the Nordic Council of Ministers.

E-commerce may have many advantages for the consumer. It may be simpler, quicker and less expensive to trade by e-commerce than by traditional methods. However, a prerequisite is that enterprises that establish and maintain e-commerce web sites should provide reliable and easily accessible information that is easy to understand. Adequate information should be made available to the consumer about the goods or services for sale, as well as the terms of sale, price, delivery, etc. Web site user-friendliness is of great importance to the customer's choice of point of sale. It is therefore important that

⁶ The Nordic e-commerce strategy is available at the Nordic Council of Ministers' web site www.norden.org, under the areas of co-operation Consumer and Trade and Industry respectively. The web site also contains the working group's reports on self-regulation, state electronic services for enterprises, factors for successful e-commerce, electronic payment solutions as well as the situation of small and medium-sized enterprises (SMEs) in connection with e-commerce.

⁷ The Economic Impact of ICT, OECD 2004.

the development of e-commerce solutions is oriented towards meeting the needs of the user to a greater extent.

Consumer confidence in e-commerce is vital for its development. Confidence in the enterprise behind an e-commerce web site is extremely important, particularly as regards terms of payment and delivery as well as routines for complaints and returns, while the technical security must also be sufficient.

The working group's recommendations for the consumer area are primarily aimed at providing information to consumers and e-commerce web site owners about their rights and obligations and also encouraging the creation of collaborative projects in this area between various interested parties in the Nordic countries. In particular, the position of children and young people in the e-commerce market needs to be improved. There is a clear need to improve their education towards becoming critical Internet users, as they are more susceptible to risks on the Internet than adults.

Increased competence in IT and e-business is necessary to ensure that more enterprises, in particular smaller enterprises, will succeed in e-business. It is important that business managers, in particular, appreciate and are capable of utilising IT as an efficient business tool, as business managers are those who make investment decisions. Business managers are also those who initiate organisational changes, often a precondition for successful e-business investments. Committing resources to continuously developing skills within the enterprise is necessary for all enterprises to be able to exploit the potential of e-business.

Inadequacies of standardisation and interoperability between various systems and software for e-business are a particular problem for small enterprises. They run the risk of having to invest in several different solutions to satisfy different customer demands. This can prove to be very expensive. Furthermore, systems originally designed for larger enterprises may prove to be less suitable for these small enterprises. The State has an important role as a model for the use of IT and e-commerce. The public sector is a large and important customer within the Nordic markets and should therefore endeavour to implement increased electronic procurement.

The recommendations of the working group, from a business perspective and similarly from a consumer perspective, focus on information and education to enhance awareness of e-business benefits and the competence necessary to utilise its potential.

Monitoring the development of these areas, encouraging exchange of experiences and providing good examples are also important areas of commitment that it may be appropriate to implement at the Nordic level in relation to both consumer affairs and trade and industry affairs.

1 Introduction

1.1 Background

The Nordic countries have many things in common: closely related languages (with certain exceptions), similarities in social structure and well-integrated economies with established cross-border trading. A large and growing number of enterprises operate in several Nordic countries. Nordic business life is based on uniform values regarding sound and generally accepted business practices and consumer protection. The Nordic countries often top IT statistics and are regarded as model countries by many other countries and markets.

The Nordic Governments see e-commerce as an important means for welfare and growth. There is great potential for increased co-operation and joint views between the Nordic countries regarding the promotion of e-commerce in the individual Nordic countries and for the expansion of a Nordic market as part of the international market, including the market for e-commerce.

On this basis, at their joint meeting in Svalbard in April 2002, the Nordic Council of Ministers for Consumer Issues and Trade and Industry Issues asked the working group to prepare a joint Nordic e-commerce strategy. In support of the work on the preparation of such an e-commerce strategy, the working group has obtained reports in the areas of self-regulation, state electronic services for enterprises, factors for successful e-commerce, electronic payment solutions as well as the situation of small and medium-sized enterprises (SMEs) in connection with e-commerce. Summaries of these reports are found in Appendix 2 to this strategy. The full text of the reports is available at the Nordic Council of Ministers' web site⁸, under the areas of co-operation Consumer and Trade and Industry respectively.

In order to ensure that the aims of the strategy are communicated to external stakeholders, a workshop was implemented with participation of Nordic representatives from trade and industry, consumer organisations and the academic world in November 2003. Another aim of the workshop was to stimulate Nordic e-commerce and e-business networks. Views presented at this workshop have been incorporated in the strategy. This draft strategy, including recommendations, has been approved by the relevant Nordic Committees of Senior Officials for Trade and Industry Issues, Consumer Issues and IT Issues. The draft strategy will be presented to the Nordic Councils of Ministers for Trade and Industry Issues and Consumer Issues in the autumn of 2004.

The working group hopes that the Nordic e-commerce strategy will lead to increased Nordic co-operation on e-commerce issues at various levels and to increased good use of e-commerce in the Nordic countries.

⁸ www.norden.org, areas of co-operation Consumer and Trade and Industry respectively.

1.2 Definitions

The generally accepted definition of the term *e-commerce* (electronic commerce) is the purchase and sale of goods and services via electronic networks, increasingly via the Internet. For decades, enterprises have been able to carry on e-commerce where commercial data have been transferred between the enterprises' computer systems in accordance with agreed communication standards, in Europe primarily in accordance with EDIFACT standards⁹. E-commerce in accordance with EDIFACT standards, so-called EDI commerce, which still takes place almost exclusively via other networks than the Internet, constitutes the largest share of e-commerce between enterprises.

In addition to the term e-commerce, the term *e-business* (electronic business) has begun to be used both nationally and internationally, especially in connection with e-commerce between enterprises. The concept of *e-business* covers a significantly wider area than merely electronic purchase and sale of goods and services and comprises all network-based electronic processes that can enhance the efficiency of an enterprise's business activities.

In this strategy, the working group has decided primarily to use the term e-commerce for e-commerce between enterprises and consumers and the term e-business for e-commerce between enterprises. The working group's general view regarding enterprises is that it is not sufficient for them to increase their electronic purchasing and sales activities. It is at least equally important that they enhance the efficiency of their business activities both internally and externally through increased and more advanced use of IT.

<i>E-commerce</i>	<i>E-business</i>
Purchase and sale of goods and services via electronic media, for example the Internet.	E-commerce + Marketing + Sales + Customer handling + Purchasing and logistics + Finance and invoicing + Knowledge Management + Product design and product development

Fact box 1.1. Definition of e-commerce and e-business.

In its work, the working group has focused on e-commerce via the Internet and via other fixed networks. However, the Nordic countries are at the forefront of the development

⁹ EDIFACT (Electronic Data Interchange for Administration Commerce and Transport) is a set of standardised messages for interchange of data on, for example, ordering, notice of delivery, specifications, invoicing and payment in EDI format.

in mobile and other wireless communication, which is increasingly being used for commerce and enhancement of the efficiency of the enterprise's business activities. The same applies to digital TV transmission networks, which also offer a channel for marketing and commerce. This means that, in the future, enterprises must master commerce and communication via several different channels. One trend is that different communication types converge and merge, but there are still large differences. While noting that a detailed examination of these trends is required, the working group is of the opinion that the issues presented in the strategy also apply to these new sales channels.

1.3 Areas of Focus

Many different factors affect both consumers' and enterprises' attitude to e-commerce and their use hereof. In a number of studies, the following factors have been identified, among others:

- benefits and gains
- user friendliness
- confidence and trust
- information security
- competence
- interoperability and standardisation
- demand, critical mass
- infrastructure, broadband
- law
- logistics and distribution
- competition and business relations
- costs
- organisation

This strategy focuses on the factors that the working group has identified as some of the most important factors based on the working group's mandate and experience, i.e.:

- Consumer aspects
 - Benefits and gains
 - information
 - user friendliness
 - Confidence and trust
- Business aspects
 - Competence and skills
 - Interoperability and standardisation
 - Demand and the State as a model

As mentioned above, enterprises' confidence in IT, the Internet and e-business is one of the key factors in the development of e-business. However, the majority of studies show that enterprises do not experience security aspects as a significant barrier. This may partly be explained by a lack of competence in electronic security issues and thus a lack of insight into the importance of these issues (see 3.1 Increasing enterprises' competence in IT and e-business). The Nordic Council of Ministers for Information Technology has identified IT security and confidence as one of its areas of focus.¹⁰ The working group has therefore chosen not to deal further with this issue within the framework of this strategy, but the working group would still like to stress that information security will become increasingly important in line with the increased use of IT and e-business as well as the rapid technological development, for example the increasing availability of wireless solutions.

1.3.1 Questions

The Nordic e-commerce strategy endeavours to answer the following questions:

- What are the largest barriers to increased use of e-commerce among enterprises and consumers?
- What is the role of the State in these issues?
- What measures can be implemented at national level and at Nordic level respectively?

1.4 General Outline

The report is divided into two main parts: one on consumer aspects and one on business aspects. First, a description is provided of each problem area, followed by specific recommendations to the Nordic Council of Ministers. The working group has not decided on which player would be the best choice for implementing the recommendations, but it is important that the recommendations are implemented in consultation with and between the relevant public authorities, organisations and other parties, regardless of whether this takes place at national level or at Nordic level. The recommendations (both general and specific) are summarised in a separate chapter (Chapter 4).

1.5 E-commerce – to the Benefit of Enterprises and Consumers

Compared to the expectations expressed during the so-called Internet boom era, e-commerce has not increased at the same high rate. The use of e-commerce is, however, still increasing, but at a slower pace. E-commerce offers the possibility of doing old things in new ways, and it takes time to change the behaviour of both enterprises and consumers.

There is great untapped potential in e-commerce. E-commerce should be seen as a supplementary channel to conventional commerce and offers great potential benefit and efficiency enhancement opportunities for both enterprises and consumers. Some of the

¹⁰ *Nordisk Ministerråd for Informationsteknologi (MR-IT) – Strategi og handlingsplan for 2002-2004 (Nordic Council of Ministers for Information Technology – Strategy and Action Plan for 2002-2004)*

reasons why even more consumers and enterprises do not use e-commerce are discussed in this e-commerce strategy.

1.5.1 Consumer Aspects

E-commerce offers consumers an easy and flexible way of finding information about products and services via the Internet. The possibility of comparing prices and obtaining product information is improved. The convenience of being able to shop outside ordinary opening hours and the possibility of both electronic ordering and delivery of goods and services, such as music and hotel bookings, ease the stressful everyday life that people lead today and allow them to do their shopping in a place that is convenient for them, for example from home without stress and at a time that suits them best.

An important reason why there are not more consumers who choose to buy products and services by e-commerce is that they do not see the benefit of shopping electronically compared with conventional shopping. The advantages of e-commerce are only achieved when it is quicker, simpler and less expensive than conventional shopping. It is important, in terms of both confidence and benefit, that the information offered by e-commerce web sites is correct, adequate, easily accessible and comprehensible for consumers. User friendliness is a key factor in this connection. The development of e-commerce solutions has so far been much too technology and supplier oriented. Greater adjustment to user requirements is needed if the use of e-commerce is to increase.

The lack of confidence or trust among consumers is another important reason why consumers do not use e-commerce more. Not having the competence and understanding of how the technology works – what actually happens when you search for information or order a product via the Internet – may cause uncertainty. Electronic payment solutions, especially the provision of credit card details and personal data on the Internet, may also be intimidating when the individual person does not know whether the communication is secure (encrypted or the like). The fear of hackers, computer viruses and other technical problems or of being exposed to criminal activities may prevent consumers from engaging in commerce on the Internet. Uncertainty about consumer rights regarding returns, complaints and refunds may also deter consumers from making purchases on the Internet.

Children and youngsters are particularly vulnerable as e-commerce consumers, as they do not have the same understanding and awareness as adults about what you should and should not do on the Internet. Sometimes, it is not enough that the web site itself is technically secure if the consumer is not confident that the delivery and payment process will take place as promised or if questions of liability in various problem situations are unclear. Confidence in the enterprise or the operator that is behind a web site or an e-shop plays a very important role. The perceived risk is probably often greater than the actual risk. One challenge is therefore to try to boost consumer confidence through better information.

1.5.2 Business Aspects

E-commerce and e-business are means for growth. For example, use of e-commerce and e-business provides enterprises with opportunities of access to larger markets and results in efficiency enhancement, cost reductions and increased competitiveness through better customer service and supplier relations. Especially for small enterprises, e-commerce may be an effective and relatively inexpensive and quick way of reaching a larger international market. With increased use of electronic processes, the time spent on administrative tasks may instead be used for the enterprise's core activities, for example development, production or sales of products and services.

There are, of course, also barriers to e-commerce, perhaps especially for small enterprises. A lack of the competence and skills required to understand and utilise the advantages offered by information technology and e-commerce is a problem for small enterprises, which may not have the necessary human resources or the financial resources to recruit competent staff, provide further training of their existing staff or invest in modern IT equipment. The management's often hesitant attitude to IT investments and, in particular, the potential for return on such investments constitutes one of the greatest barriers to small and medium-sized enterprises' use of e-commerce. A good combination of business competence and technical competence, including knowledge about information security issues, is important. The ability to see the need for and to implement changes in the enterprise is also very important in e-commerce contexts. In order for IT investments to result to the desired efficiency enhancement of the enterprise's business activities, the enterprise's management should have a clear picture of the enterprise's current business processes before the investments are made.

Another barrier for enterprises, first and foremost small and medium-sized enterprises, is non-interoperability between different IT systems. The lack of uniform use of standards for software and other IT solutions in the enterprise's business networks risks making it more difficult and more expensive for, in particular, small enterprises to use e-commerce. A small supplier may have to adapt to larger customers' systems, which may be very costly if the customers use different standards. The efficiency enhancement potential of e-commerce thus risks being outweighed by the costs incurred for various systems. A lack of demand – the lack of a critical mass – is also seen as a barrier that prevents enterprises from starting up with e-commerce. Here, the State as a public principal may set a good example through greater use of electronic procurement. This may create increased confidence in and insight into e-commerce and the advantages that it offers, and the State may thus persuade more enterprises to start up with e-commerce by using a “carrot and stick” approach.

1.6 The Nordic Countries Are at the Forefront in the Use of IT and E-commerce

In the previous IT policy, the focus was on the actual infrastructure such as the introduction of broadband, etc. Minds were then broadened and use of the IT platform that was built up became of increasing interest to policymakers. E-commerce constitutes part of the IT application. While it is relatively easy to measure quantitative data, such as the number of computers and the number of inhabitants who have access to the Internet, it is more difficult to measure the use of e-commerce and e-business processes, especially their effect on individual enterprises' business activities and result performance.

The IT penetration is high in the Nordic countries. Regarding, for example, access to personal computers, the Nordic countries are at the top of the table in international comparisons. According to a study from 2002, the Nordic countries are in the top seven positions. Regarding the number of Internet users, the Nordic countries are in the top six positions.¹¹

Estimating the volume of e-commerce in the Nordic countries is connected with great uncertainty. The following figures should therefore primarily be seen as indicators, not as absolute figures. The measurements that do exist show that total Nordic Internet sales amounted to 15 billion euro in 2001.¹² The value of Internet sales was 7.6 billion euro in Sweden, 3.3 billion euro in Norway, 2.1 billion euro in Denmark and 1.8 billion euro in Finland. In all the Nordic countries, Internet sales were primarily made on the domestic market. Sweden had the highest share, 22 per cent, of cross-border sales, and Norwegian enterprises had the lowest share, 3 per cent.

In 2001, total Nordic EDI sales amounted to 69 billion euro¹³. The volume was 27 billion euro in Sweden, 20 billion euro in Finland, 12 billion euro in Norway and 10 billion euro in Denmark. The volume of EDI sales in Nordic enterprises was more than four times higher than the volume of these enterprises' Internet sales.

1.6.1 Internet Use among Nordic Consumers

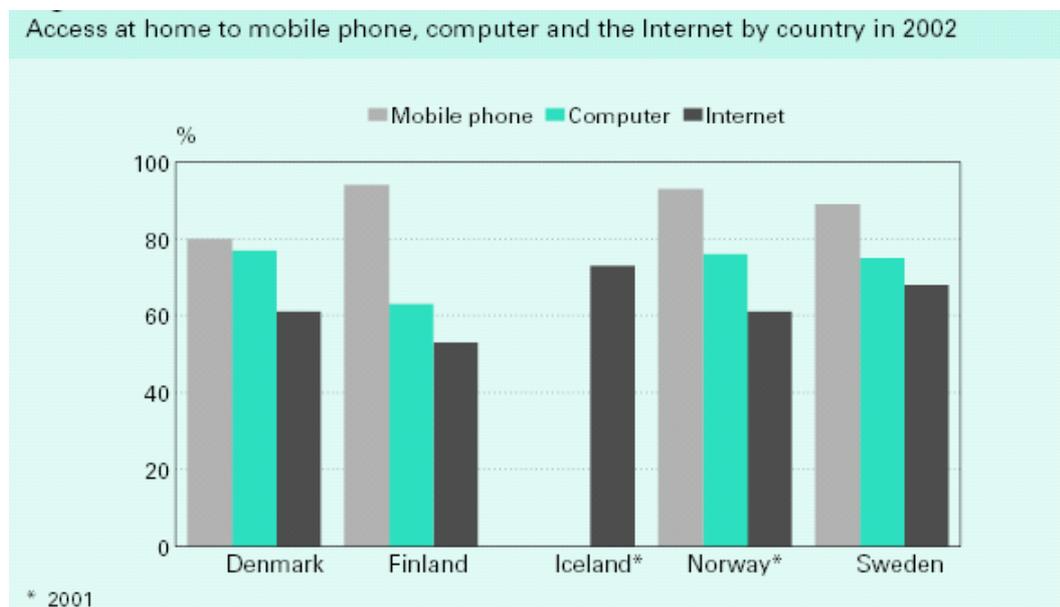
In 2002, more than 70 per cent of the Nordic population had access to a computer, and approximately 60 per cent had access to the Internet at home. If access to mobile phones, which is approximately 90 per cent in the Nordic countries, is excluded, the IT penetration is somewhat lower in Finland than in the other Nordic countries. The bar chart below (1.6.1) does not include data for Iceland regarding access to mobile phone and home PC. According to a survey conducted by Statistics Iceland in 2002, 95 per

¹¹ *Information society statistics*, the European Commission, 2003

¹² *Nordic Information Statistics 2002*, Nordic Council of Ministers (Statistics Denmark, Finland, Iceland, Norway, Sweden). Internet sales also include sales via XML-EDI, except for Sweden, where Internet sales include sales via EDI browsers.

¹³ The EDI sales volumes exclude sales via XML-EDI (EDI browsers in Sweden). *Nordic Information Statistics 2002*

cent of households had a mobile phone and 83 per cent had a home PC. (In this survey, access to the Internet was somewhat higher, 78 per cent, than in the bar chart below).¹⁴



Bar chart 1.6.1. Access at home to mobile phone, computer and the Internet, 2002.

Source: *Nordic Information Statistics 2002*, Nordic Council of Ministers (Statistics Denmark, Finland, Iceland, Norway, Sweden)

Regarding access to mobile phones, computers and the Internet, there are no significant gender differences, with the exception that men tend to have greater access to the Internet at home. A comparison of age groups shows that the oldest age group, 60–74 years, rarely have a computer at home. Denmark, Sweden and Norway have the largest gender difference in the oldest age group. There are no gender differences in the age group 30–59 years. Men use the Internet somewhat more frequently than women in the Nordic countries. Icelanders are the most active Internet users in the Nordic countries, followed by Swedes. 44 per cent use the Internet for shopping (including Internet banking), with Icelanders again being the most frequent users, followed by Swedes.

1.6.2 Internet Use in Nordic Enterprises

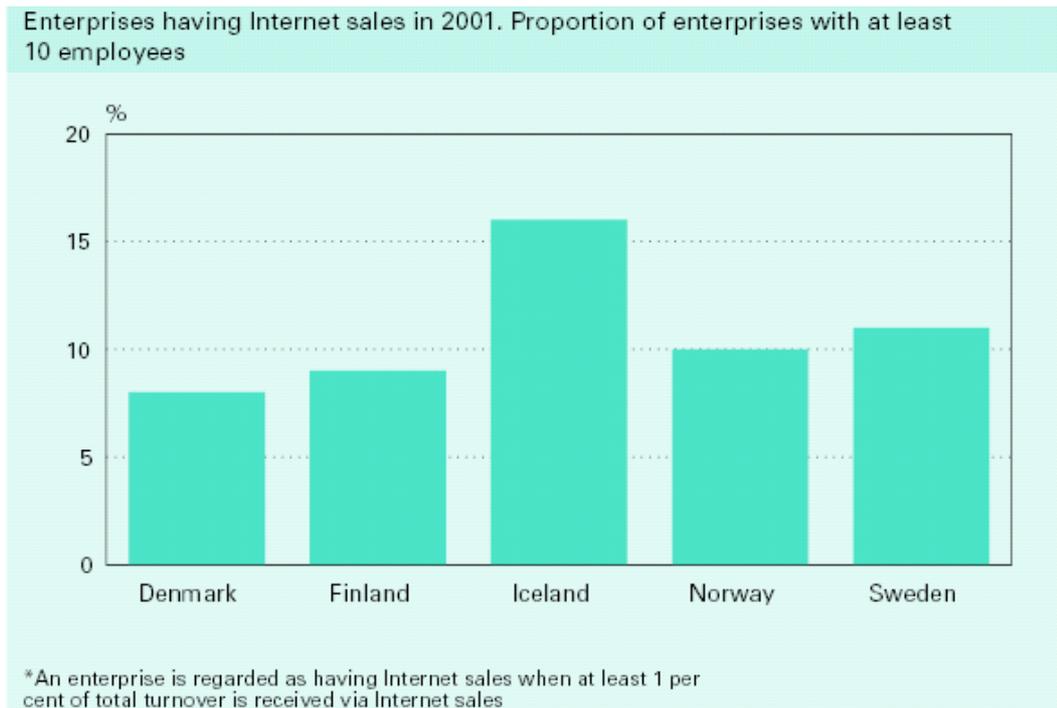
Computers are today used in nearly all Nordic enterprises. However, small enterprises use IT more rarely than large enterprises. At the end of 2001, more than 90 per cent of Nordic enterprises, except for Norwegian enterprises, had access to the Internet. Access to a high-speed Internet connection was most common in Iceland, where 2/3 of the enterprises had this type of Internet connection. In Finland and Denmark, approximately half the enterprises had access to a high-speed Internet connection, in Sweden the figure

¹⁴ The survey covered 2,000 inhabitants. The questionnaire and working method are in accordance with a corresponding survey conducted by Eurostat and were inspired by a survey previously done in the Nordic countries, Statistics Iceland.

was 43 per cent of the enterprises and in Norway 1/3 of the enterprises. Having a web site was most common among Swedish enterprises, where nearly four out of five enterprises had a web site. In Denmark, three out of four enterprises had a web site, whereas the share of enterprises with a web site was two out of three in Finland and Iceland. Approximately half the Norwegian enterprises had a web site. Home pages are primarily used for marketing purposes in the Nordic countries. It is still fairly unusual to receive electronic payments via a web site.

Internet sales were not particularly common among Nordic enterprises at the end of 2001. Internet sales were most common among Icelandic enterprises, where 16 per cent of enterprises with minimum 10 employees sold goods and services via the Internet. The figure was 8–11 per cent in the other countries. It was more common for large enterprises to sell goods and services via the Internet than for small enterprises. Only 24 per cent of enterprises generated 10 per cent of their total turnover from Internet sales. As previously mentioned, the total Nordic figure for Internet sales amounted to 15 billion euro, with Swedish enterprises making up approximately half this figure. In all the Nordic countries, except Iceland, 80 per cent of Internet sales were made to enterprises and the public sector. In Iceland, 2/3 of Internet sales were made to households. Purchasing goods and services via the Internet is more common than selling goods and services via the Internet. Nearly half of the Nordic enterprises, 1/3 of Norwegian enterprises, purchased goods and services via the Internet at the end of 2001.¹⁵

¹⁵ *Nordic Information Statistics 2002*. New figures for 2003 are available at the web sites of the Nordic national bureaus of statistics (except for Finland, which will publish its figures in the autumn of 2004), but no Nordic compilation of the statistics was made for 2003.



Bar chart 1.6.2. Enterprises having Internet sales in 2001 (proportion of enterprises with at least 10 employees).

Source: *Nordic Information Statistics 2002*, Nordic Council of Ministers (Statistics Denmark, Finland, Iceland, Norway, Sweden)

Based on the above statistics, it can be ascertained that the Nordic countries are at the forefront of developments and that a certain level of maturity has been achieved, but that there is still great potential for Nordic e-commerce.

2 Consumer Aspects

2.1 Strengthening Consumer Awareness of Benefits of E-commerce

From a consumer policy perspective, it is important to point out that increased e-commerce is not an objective per se. E-commerce can contribute to increased competition and increased supply of goods and services. Internet access makes it practical and easy for consumers to orient themselves on the market and to buy goods and services. In terms of consumer policy, it is this value added, this benefit, that is the principal objective. E-commerce is merely a tool that can be used to meet this objective.

One reason why more consumers do not shop via the Internet may be that the potential benefit is not made sufficiently clear. In those cases in which goods and services are neither cheaper, easier nor quicker to acquire or are not of a satisfactory quality, the Internet risks becoming a channel that only attracts users with a special interest in computer technology.

Surveys from Denmark¹⁶ have shown that the three main barriers to consumers' Internet shopping are:

- 1) that they do not find that they have any use for it
- 2) a wish for personal interaction when shopping
- 3) a concern about security in connection with payment.

And, conversely, the three most important motives that consumers have for shopping via the Internet are that:

- 1) they can save time
- 2) they can save money/lower prices
- 3) it is easier to find the required product than when shopping in conventional shops.

Certain products are more suitable than others for being sold via the Internet. Books, CDs, travels, tickets and computer products are examples of goods and services that are suitable for e-commerce. Products such as clothing, goods that most consumers want to try and feel before buying them, are regarded as less suitable for being sold via the Internet. Consumers' failure to experience any benefits and gains from e-commerce is primarily a problem from the perspective of unutilised benefit potential.

A number of factors may result in a failure to realise the benefit potential for consumers for shopping via the Internet, for example:

- lack of Internet and e-commerce competence among consumers
- lack of confidence among consumers

¹⁶ Danmarks Statistik, Statistics Denmark, 2003

- poor user friendliness at e-commerce web sites
- poor Internet access and low data transfer rate for consumers
- the total costs, for example for freight, handling charges and Internet connection, may result in Internet shopping not being cheaper for consumers than other shopping
- logistical problems, it may, for example, take a long time to have the goods delivered and it may be cumbersome for the consumer subsequently to return goods and complain about goods.

2.1.1 Encouraging Improved Information

As mentioned, shopping via the Internet offers consumers a number of advantages. He or she may obtain information and make a decision at his or her own pace without being influenced by any salesperson. It is easy to compare prices, and there are even services available for this purpose. Certain products can also be completely customised. For example in connection with purchases of a car or home computer equipment, various components may be combined completely in accordance with the customer's requirements and wishes.

However, a consumer who shops via the Internet is, in many ways, in a weaker position than if he or she purchased the same product in a shop. The customer has to settle for the information that is provided about the product at the web site. In many cases, this information is insufficient and does not include any information about the total cost, contractual terms or terms of delivery or about the country from which the product will be delivered. In those cases in which the consumer decides to enter into a contract, it is not rare for money to be drawn on the payment card before the product is delivered. In a number of cases, it is unclear to the consumer whether or not a contract has actually been entered into.¹⁷

Consumers not only shop via the Internet. Many also use the Internet as a source of information, which they then use to buy the goods or services through other channels. The Internet is an unbeatable source for information about services and products. However, the entry of product-related information is costly, and the information is not in any way complete or well structured, but depends on the individual enterprise's decision on what information to post on the Internet. Unfortunately, the information provided to consumers is therefore often fragmented, and concepts and terms are used in different ways. Sometimes, poor search functions mean that consumers quite simply receive too much information and have difficulty in sorting the relevant data. It would make it considerably easier for consumers who are retrieving information if the properties of goods and services could be described according to uniform criteria through the use of standardised classifications of products and services. There are currently only certain limited initiatives in this field. In order for standardised information to become really useful for consumers, this will require that the product information is complete and subject to some type of quality assurance.

¹⁷ For general principles for e-commerce, see *OECD Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices Across Borders*, 2003

2.1.2 Encouraging Increased User Friendliness

Studies have shown that there are still many consumers who try to shop via the Internet, but who do not succeed.¹⁸ This indicates that Internet shops have focused way too much on technical solutions and from an up-down perspective, and that they have consequently ignored that e-commerce must be adapted to consumers' everyday life.¹⁹

Too one-sided focusing on product development, planning and implementation of production processes may mean that insufficient importance is attached to user or market orientation and that customers' needs, wishes and requirements are thus not sufficiently met. In the field of e-commerce, as in other fields, the experts have great defining power, which may become a practical problem in connection with e-commerce. Compared with conventional commerce, it is even more important that Internet shops provide their customers with a positive shopping experience, seeing that it is easier for the customer to leave the shop (perhaps never to return again) in connection with shopping via the Internet.

User friendliness is also important to the actual payment process, because predictability and recognition create confidence. The customer must feel secure that the ordering and payment processes function as expected. Payment services must be easy to understand and use. It is important for the web shops that their web sites are professionally designed.²⁰ It is convenient for customers if different web shops can handle several different payment methods, especially in a Nordic perspective, where different types of payment methods dominate in the various Nordic countries. In Denmark, debit cards (Dankort) are the predominant method of payment. Internet banking solutions dominate in Finland, including Åland. In Iceland and Sweden, credit cards and, in part, Internet banking solutions are the predominant methods of payment, whereas invoices and cash on delivery (COD) are the predominant methods of payment in Norway.²¹

2.1.3 Conclusions

In order to achieve good results in e-commerce, it should be obvious for enterprises that importance must be attached to customer requirements, the IT competence of a given customer group, the information that customers demand and require and how users can be involved in the development of e-commerce solutions. The enterprises should thus focus on offering e-commerce solutions, including payment solutions, that are based on reliability, simplicity and user friendliness in order to create benefit for their customers and thus also for themselves.

¹⁸ *Bommer banalt på nett*, kampanje nr. 11 (*Banal Failures on the Internet*, campaign no. 11), Hoydal, H, 2001

¹⁹ *Faktorer bak en vellykket e-handel (Factors for Successful E-commerce)*, SIFO (National Institute for Consumer Research), 2003

²⁰ *E-betaltjänster – delrapport*, Post- och telestyrelsen (*E-payment Services – Subreport*, Swedish National Post and Telecom Agency), October 2003

²¹ *Analyse av betalningslösningar ved elektronisk handel sett i et nordisk perspektiv (Analysis of Payment Solutions in Electronic Commerce from a Nordic Perspective)*, Teleplan A/S, April 2003

2.1.4 Recommendations

- To make consumers aware of the information requirements that may be made in connection with e-commerce.

Action

- Preparation of a checklist with important items of information.
- To encourage representatives of consumers and trade and industry to co-operate on projects aimed at improving user friendliness.

Action:

- Preparation of guidelines or recommendations for user friendliness.
- Initiation and use of user tests for e-commerce to a greater extent.
- To continue to develop and offer e-services and information at public web sites with good user friendliness.

2.2 Increasing Consumer Confidence

Slowly, but surely, consumers are increasing their shopping via the Internet. Internet shopping may entail increased supply, increased competition and thus lower prices. Shopping via the Internet may also be an advantage to those consumers who find it difficult to visit actual shops, for example because of a disability or because of poor communications for those who live in sparsely populated areas. Consumer confidence in shopping via the Internet is, however, essential for a favourable development of e-commerce. Studies show that even though enterprises have improved both the information provided on the Internet and the handling of consumer complaints, there is still cause for concern among consumers.²² Enterprises that sell products and services via the Internet have a great responsibility for improving the lack of consumer confidence.

According to surveys conducted by, among others, Consumers International, OECD and the network of Euroguichet offices, the greatest problem for consumers is that, once the product has been ordered and paid for, it is not delivered at all, delivered too late or delivered in a poor condition. The enterprise's handling of complaints is essential to building up consumer confidence in shopping via the Internet. However, enterprises that operate e-commerce web sites are lacking in this area. The enterprises' own on-line dispute settlement systems do not always offer consumers access to impartial dispute settlement proceedings. Other problems are related to insufficient or misleading information, terms of payment and delivery, disclosure of personal data and complaints possibilities.

Obviously, confidence also plays an important role in connection with electronic payment processes. However, according to a Swedish survey, confidence in the enterprise behind the payment service is the most important factor, not the technical solution or a concern about, for example, hackers. The perceived confidence thus seems to be more important than the actual level of security. Important factors are that the enterprise is

²² *Should I buy? Shopping online 2001: An International comparative study of electronic commerce*, Consumers International

well known and that there are references from friends and acquaintances. In this context, there is great consumer confidence in the payment solutions offered by banks and payment and credit card companies, one reason being that the banks are under government supervision. Fortunately, the respondents in the survey answered that none of them, nor anyone they know, had been the victim of fraud or the like in connection with e-commerce.²³

Increasing awareness about the situation of children and youngsters in connection with e-commerce

Like other vulnerable parties on the market, children and youngsters should be protected on the Internet and in connection with e-commerce. Even though parents have the principal responsibility for this, further consumer protection is required. Children and youngsters are entitled to utilise the possibilities that e-commerce offers. By means of e-commerce, youngsters can find product information and develop their awareness and skills as consumers. E-commerce may help youngsters find products that may not be available in conventional commerce. It is therefore important to strive to strike a balance between consumer protection for children and youngsters and promotion of e-commerce and its advantages. Strengthening the position of weak consumer groups on the market promotes sound customs and practices as well as general compliance with rules on the market. This creates confidence in e-commerce, which benefits all parties.

Consumer authorities actively monitor marketing practices on the Internet, for example by so-called *sweep days*. In this connection, and also when it comes to mobile services, it has been observed that, much too often, minors are exposed to improper marketing. From a parental point of view and in terms of consumer protection, the matter of greatest concern is that children and youngsters are often treated as adult contracting parties. This has the effect that enterprises do not ask for confirmation of the purchase from a parent or guardian. Furthermore, marketing directed at children has frequently been difficult to identify and thus becomes misleading. Minors have been tricked into providing personal data on the Internet. In addition, enterprises do not always provide any contact information on the Internet, which makes it difficult to contact them if problems occur. These negative aspects of e-commerce risk hampering children's and their parents' use of the Internet and e-commerce.

Self-regulation

Self-regulation may be one way of improving user confidence. A general problem in the field of IT is that the regulation lags behind the generally rapid development. Self-regulation may therefore be a supplement to legislation. General omnibus clauses on good marketing practices, good credit granting practices and unreasonable contractual terms may be supplemented with guidelines and agreements between public authorities and representatives of trade and industry. Good self-regulation may result in better consumer protection and more effective supervision as well as increased goodwill for the enterprises.²⁴

²³ *E-betaltjänster – delrapport*, Post- och telestyrelsen (*E-payment Services – Subreport*, Swedish National Post and Telecom Agency), Sweden, October 2003

²⁴ *Självreglering av elektronisk handel i Norden (Self-regulation of Electronic Commerce in the Nordic Countries)*, TemaNord, 2001

Effective self-regulation requires access to enforcement and sanctions so that users have an opportunity to assert the rights that the rules provide. This means that there is a need for impartial dispute resolution bodies, so-called Alternative Dispute Resolution (ADR). The EU Commission has adopted a recommendation on extra-judicial dispute resolution. So-called Online Dispute Resolution (ODR) is also something that is being discussed in line with e-commerce becoming increasingly global. At the Commission's initiative, a joint EU network for alternative dispute resolution, the European Extra-Judicial Network (EEJ Network), was set up in 2001. The network consists partly of national contact points (Clearinghouses) in each Member State as well as in Norway and Iceland and partly of alternative dispute resolution bodies in the respective countries. The national contact points work to provide consumers with information and assistance if they become involved in disputes with suppliers in another EEA country.

2.2.1 Conclusions

The lack of consumer confidence in e-commerce is probably closely connected with the degree of reliable and sufficient information and user friendliness offered by the web site in question (see sections 2.1.1 and 2.1.2). The lack of confidence may be justified or unjustified, and confidence in the enterprise behind the web shop (and not in the information technology itself) is often the key factor. Many of the problems that consumers experience in connection with e-commerce are not actually e-commerce problems, but traditional consumer problems such as breach of agreement, incorrect delivery or non-delivery as well as difficulties in filing complaints and returning goods. Maverick enterprises are found both on the Internet and in conventional commerce. In particular, the weak position of children and youngsters in e-commerce needs to be improved. This can be achieved if enterprises have knowledge of and comply with the existing rules and thus create a safer and more reliable marketplace and if minors acquire increased knowledge and awareness of their rights as consumers.

2.2.2 Recommendations

- To inform consumers about their rights and obligations in connection with e-commerce, including e-payments, and to urge them to be critical in their evaluation of e-commerce web sites.

Action:

- Preparation of checklists with important items.

- To inform enterprises about the existing rules under consumer law.

Action:

- Arrangement of information seminars (including exchange of good and bad examples) in co-operation with trade organisations.
- Inclusion of the information in state IT competence initiatives aimed at enterprises.

- To encourage joint Nordic projects on:
 - Impartial dispute resolution systems.
 - Market supervision.

3 Business Aspects

3.1 Strengthening Enterprises' Competence in IT and E-business

Even though most enterprises today have some degree of knowledge of e-commerce, many studies show that the lack of competence is a great barrier, especially for small and medium-sized enterprises. This applies, for example, in situations in which the management of the enterprise is to make a decision on use (or increased use) of e-commerce. In order to increase competence and highlight the opportunities and areas of application of e-commerce, there is a need for better presentation of good examples and potential gains from e-commerce, for example by facilitating and promoting wider exchange of experience and networks between enterprises.

Competence is important in order to further strengthen confidence in e-commerce. Enterprises that are considering setting up a web site for e-commerce need competence and skills in how to make it user friendly and ensure compliance with the existing rules. At the same time, users need sufficient competence and confidence in order to understand and utilise the opportunities offered by e-commerce.

Competence is a wide concept, and there are many different kinds of competence requirements and problem areas related to enterprises' e-commerce. E-business involves many central functions in the enterprise and thus different competence areas. Advanced use of e-business requires that different competence areas be seen in relation to each other, for example technical competence and business competence.

3.1.1 The Management's Competence and Adaptability

The management's competence and understanding of potential gains affect, for example, the willingness to invest. In other words, the management's competence constitutes a central factor in the enterprise's allocation of the resources necessary for investments in e-business activities. This applies especially to small enterprises, of which there are many in the Nordic countries. Demand and pressure from large customers, both public and private, as well as participation in, for example, electronic marketplaces may have the effect that small enterprises choose to make the necessary investments in technical solutions and competence for implementation of e-business in order to survive. These investments may constitute a higher threshold for small enterprises, which do not have the same amount of resources as large enterprises. On the other hand, pressure from larger players may have a positive effect (a push in the right direction), which persuades small enterprises to start using e-business.

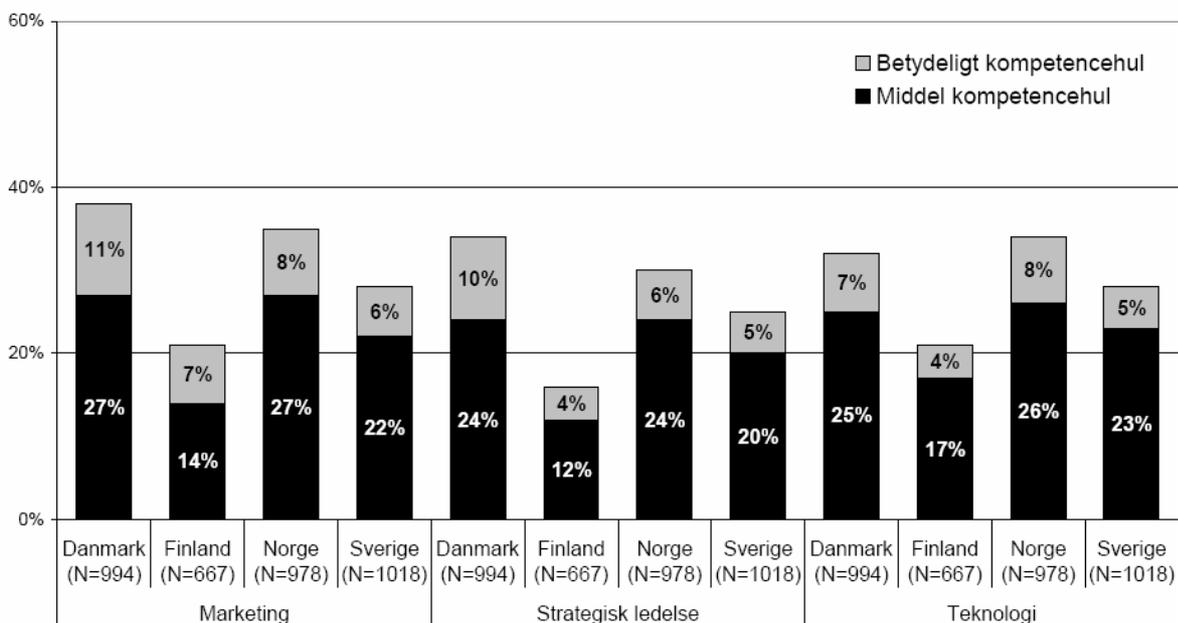
In order for an enterprise to succeed in reaping gains from e-business, it is important that the management of the enterprise has the competence and will to implement the organisational changes necessary in order to use e-business optimally. Adaptability is important, seeing that e-business is an innovation that may require radical changes in an enterprise's organisation and work processes. For example, the enterprise must have the necessary competence to be able to prepare an e-business strategy and analyse and im-

prove existing activities in the value chain and the organisation and to be able to utilise the potential of e-business so that added value is generated. E-business may also offer opportunities for changed co-operation or new partnerships as well as the exchange of experience with other enterprises locally, nationally or globally.

3.1.2 Competence Development

Many small and medium-sized enterprises experience that they lack competence in the field of e-business. In a survey that included four of the Nordic countries, one of the conclusions was that: “There is a general need for enterprises to prioritise competence development in e-business. The reason for this is twofold: firstly, e-business ultimately requires that all staff groups and departments work together in a new way, and, secondly, e-business requires the use of new technology, which changes work routines and interaction internally and externally.”²⁵

Figur 17: Kompetencehuller inden for e-business



Bar chart 3.1. Enterprises’ experience of a lack of competence in e-business in four Nordic countries (Denmark, Finland, Norway and Sweden).

Source: *E-business Norden.com 2003*, PLS Rambøll Management

The problem of e-business competence seems more extensive in small enterprises than in large enterprises. Employees in small enterprises often only have limited access to e-learning and other formal competence-improving activities in IT and e-business. One

²⁵ *E-Business Norden.com 2003*, PLS Rambøll Management, November 2003. (Iceland did not form part of this survey in 2003, but discussions are being conducted on whether to include Iceland in the survey for 2004. Information on this decision will be posted at the Nordic Council of Ministers’ web site under www.norden.org/konsument and www.norden.org/naring respectively).

reason for this is that small enterprises have limited focus on this area, and another reason is that they have fewer resources for implementation of activities, for example training, outside their day-to-day operations. Small enterprises have a low level of IT use in their activities, and they primarily use the Internet for information retrieval and financial transactions.²⁶

The educational sector, trade organisations, etc. offer various types of training and education programmes in e-business in the Nordic countries. In terms of higher education, it would be positive if e-commerce could be included in university and college courses to a greater extent than what is currently the case. More fundamental training and education in the use of e-commerce in business activities, preferably in relation to entrepreneurship and innovation, will undoubtedly contribute to more people realising that e-business offers challenges and opportunities. This may constitute a breeding ground for increased entrepreneurship and a stronger focus on the potential of e-commerce for both small and large enterprises. In the previously mentioned Nordic survey, Finland was ahead of the other Nordic countries regarding e-business. One of the reasons for this is presumably that Finnish pioneering enterprises have a marked technical profile and focus on competence development. The above bar chart (Bar chart 3.1.) also shows that Finnish enterprises experience a lack of competence in e-business to a much smaller extent than the other Nordic countries.

Information security

Information security is one area in which many enterprises (especially small enterprises) lack competence. Even though the basic level of IT security is high in the Nordic countries, there is room for improvements. Many enterprises lack an overall strategy for their information security and have not established a secure electronic payment procedure, encryption of communications and data. The use of electronic signatures is not particularly common either.²⁷ One explanation may be that the enterprises have much too poor knowledge in this area and have difficulties finding the right security solutions, especially at the right price. Some enterprises have no awareness whatsoever of the safety and security risks that Internet use entails and have too much trust in the Internet as an appropriate medium. Other enterprises may have the opposite view of the Internet and instead harbour an unjustified fear of the risks that use of the Internet may entail. They may completely refrain from commencing e-commerce because of a lack of confidence. Enterprises' occasional lack of confidence in the Internet and e-commerce may thus be either justified or unjustified and should be preventable through information and education.

3.1.3 Conclusions

Many small enterprises have a lack of competence in the field of e-business. This also makes it more difficult for them to realise the benefits and opportunities offered by e-business and to introduce and use these solutions in practice. This means that both technical competence and business competence in e-business are required, including on information security issues. The management's competence is of particular importance, as

²⁶ *Barrierer og muligheder for e-forretninger for nordiske SMV (Barriers to and Opportunities for E-transactions in Nordic SMEs)*, PLS Rambøll Management, 2003

²⁷ *E-business Norden.com 2003*, PLS Rambøll Management, 2003

decisions on introduction of e-business or increase in e-business activities are made at managerial level. Investments in e-business require a long-term perspective in terms of return and efficiency gains. Enterprises must be brought to realise that e-business constitutes an integral part of their business activities, a supplement and, in certain cases, a new effective way of carrying on business activities. Enterprises should realise to a greater extent the importance of continuous development of their staff's competence and skills. It should be possible to reduce the justified or unjustified lack of confidence that certain enterprises have through increased public information work.

3.1.4 Recommendations

- To continue the implementation of Nordic and national activities aimed at improving IT competence, especially for small and medium-sized enterprises.

Action:

- Arrangement of knowledge-improving seminars with the focus on the management's important role in the development and introduction of e-business, highlighting the potential for gains offered by e-business and stimulation of increased co-operation between different players.
 - Inclusion of IT and e-business competence as well as information security aspects in other competence-improving activities for small and medium-sized enterprises.
 - Exchange of experience from initiatives on support for concrete implementation of e-business activities in small and medium-sized enterprises.
 - Encouragement of the development of simple tools for calculation of the potentials for gains that e-business offers for the enterprise.
- To disseminate information about existing international recommendations and guidelines²⁸ in the field of information security and to provide advice on how the enterprise can protect itself against the most common security problems.
 - To promote the dialogue between the educational system, including colleges and universities, and trade and industry on the possibilities and necessity of including IT and e-business competence in educational programmes.

3.2 Promoting Increased Standardisation and Interoperability

Non-interoperability between different IT solutions and disagreement on standards may constitute a large barrier to Nordic enterprises' e-commerce activities. A lack of standardisation is not a barrier that enterprises state as a problem in various surveys, but a lack of standardisation may nevertheless be an underlying cause when enterprises complain about high implementation costs, non-interoperability and inflexibility and that IT investments do not result in the expected efficiency enhancements. Many different international standards have been developed in the field of e-commerce. The challenge for

²⁸ *OECD Guidelines for the Security of Information Systems and Networks: Towards a Culture of Security*, July 2002

the Nordic countries is to create national agreement on the information and communication architecture and perhaps also agreement on the standards that are to apply. At the same time, the international standards need to be translated and adapted to the Nordic countries' languages and basic conditions.

The problem of a lack of uniform standards may manifest itself in many different ways depending on the standardisation problem in question. Enterprises generally experience that their customers and partners have completely different technical requirements for the enterprise's system and the way in which data are transferred and received. If the enterprise is to meet the different requirements, there is a great risk that the expenses for technical adaptations of system and work processes will exceed the gains offered by e-commerce, especially if small enterprises have to adapt to several different systems and standards used by various enterprises.

Non-interoperability may thus prevent enterprises from investing in an e-commerce system because of uncertainty about which standard will become the dominant standard in the future. It may also be the case that enterprises only become aware of the standardisation problem once they have made investments and then experience that the system that they have chosen does not meet other customers' requirements and that the investments will consequently not result in the expected efficiency enhancement.

In the field of e-commerce, the working group regards two standardisation problems as being issues of particularly current relevance: standardisation of e-commerce documents and standardisation of e-commerce catalogues, i.e. the actual catalogue structure, see also the fact box below (Fact box 3.1).

Standardisation of e-commerce documents

In order to be able to reap the financial gains of e-commerce, the enterprise must be able to automate work routines and administrative processes, for example the handling of orders, invoices or payments. However, this automation requires that the information that is received electronically can be retrieved and reused also at other levels of the business process.

This also requires that electronic orders and invoices be organised in accordance with clear rules – a standard. The standard may, for example, focus on how the data flow and data contents of a trading process are to be interpreted. It may also contain a more detailed specification of what the individual data fields in the e-commerce document are to be called so that automatic recognition can be achieved. There are thus large savings to be realised from standardised design of central trading processes and e-commerce documents such as orders and invoices.

Standardisation of e-commerce catalogues

For small enterprises that wish to commence e-commerce activities, the different technical requirements that are made for their electronic product catalogue from different purchasing portals and marketplaces constitute a great barrier. An enterprise that wants to sell its products via different portals and marketplaces that make different requirements for electronic product catalogues will have to design and maintain its catalogue in several different ways. The risk of such double work deters a number of (especially small) enterprises from becoming actively involved in e-commerce. In this area, it is therefore important to promote joint standards so that the administrative savings

achieved by suppliers through automated business processes are not eaten up by expenses for system adaptations.

Standardisation of e-commerce catalogues – two dimensions	
<i>Classification</i>	<i>Catalogue standard</i>
The question of <i>classification</i> concerns the structure of the catalogue so that the purchaser can find the goods on the purchasing portal. There are different classification structures, for example UNSPSC, and, in addition, different versions of the standard are used within each standard.	The problem regarding the catalogue standard itself concerns having standardised requirements for how a product is described in an electronic product catalogue. This entails agreeing on the number and type of data fields (for example weight, height, length, width, material, etc.) that are required in order to describe a product and what the names of the different data fields mean. There are today competing catalogue standards, such as eCX and BMEcat, but none of them have been translated or implemented in Nordic contexts.

Fact box 3.1 Standardisation of e-commerce catalogues

3.2.1 Conclusions

Non-interoperability, primarily resulting from a lack of clear, uniform standards, is a problem, especially for small enterprises, as an adaptation to several different IT solutions, based on the different requirements of customers and marketplaces, is very costly. Standardisation is a highly complex and complicated issue, and, in the working group's opinion, this is primarily the enterprise's own responsibility. However, from a small enterprise perspective, the State should use reasonable means to promote co-operation on uniform standards and interoperability.

3.2.2 Recommendations

- To monitor closely the development of standardisation-related barriers to e-commerce.

Action:

- Preparation of a report on standardisation problems in e-commerce in the Nordic countries.
- Promotion of a Nordic dialogue on the experience with different standardisation initiatives and monitoring the possibilities of more in-depth Nordic standardisation co-operation, especially in electronic public procurement. A discussion about the possible application and adaptation of existing international standards to Nordic languages and conditions should form part of such co-operation.

3.3 The State Should Set a Good Example

One barrier to increased use of e-commerce is a lack of demand, i.e. the difficulty of attaining a critical mass of customers that are willing to buy goods and services electronically.²⁹ For small enterprises, it is especially important to adjust to customer requirements for the purchasing process. Unless the majority of customers are willing to switch to e-commerce, the small supplier probably does not dare make such demands out of fear of losing its customers. However, there are examples where large enterprises have demanded that all suppliers are to send their invoices electronically.

There are numerous explanations for the lack of demand, and some of them are dealt with in this strategy, for example a lack of competence, the absence of standards, a lack of confidence, etc. One sector and an important customer that should become better at being engaged in e-commerce and thus set a good example for the rest of society is the public sector, which is a major player in Nordic society. It therefore plays an important role as a customer of Nordic trade and industry. In international comparisons, Nordic public authorities are at the forefront when it comes to offering electronic services to enterprises, for example VAT returns, customs clearance, various types of returns, statements and other information.³⁰ It is important that the State continues to develop and offer electronic services in order to make an increasing number of enterprises and individuals realise the benefits that IT offers. The State should also become better at using IT in its internal processes, such as electronic procurement and invoicing, and thus set a good example. Increased IT use may, generally speaking, result in more enterprises starting to use specific areas of application such as e-commerce.

According to a Swedish survey, the view is that the State's main role in e-commerce is to be an active and progressive user of e-commerce itself. Through such use, the State can contribute to creating interest in and a more mature attitude to e-commerce.³¹ If such a major customer as the State begins to be engaged in e-commerce on a large scale, this will provide an added incentive for trade and industry to invest in e-commerce solutions. The benefits of e-commerce become clearer once a major customer starts using it and the fact that such an important customer as the State uses electronic procurement may also provide incentives for enterprises, perhaps especially smaller enterprises, to become engaged in e-commerce. The State also acquires increased competence as an orderer of IT systems for e-commerce and can thus make more rigorous requirements for suppliers. By being an active user of e-commerce, the State can also contribute to ensuring that standards are developed and have greater penetration. In addition to promoting the market for e-commerce, the switch to electronic public procurement results in efficiency enhancement effects in the procurement process with resulting cost reductions.

²⁹ *Barrierer og muligheder for e-forretninger i Nordiske SMVere (Barriers to and Opportunities for E-transactions in Nordic SMEs)*, PLS Rambøll Management, 2003

³⁰ *Statliga elektroniska tjänster till företag i Norden*, Konsumentforskningscentralen, Kuluttajatutkimuskeskus, 2001 (*State Electronic Services for Nordic Enterprises*, National Consumer Research Centre, 2001)

³¹ *E-handel och statens instrument för att utveckla förutsättningarna*, Post- och telestyrelsen, 2002 (*E-commerce and the State's Instruments for Developing the Basic Conditions*, Swedish National Post and Telecom Agency, 2002)

It is important in this context not to forget the limited possibilities that small enterprises have of adapting to different e-commerce solutions and advanced systems. The State should ensure that it does not make unnecessarily rigorous technical and security requirements for its procurement systems, for example regarding electronic signatures, in order to avoid discrimination against small enterprises.

3.3.1 Conclusions

The lack of demand or critical mass is seen by many enterprises as a barrier to e-commerce. The State, which is a major purchaser on the Nordic markets, should be able to use electronic media for its procurements and invoicing to a greater extent than today. This will improve the whole electronic market right from development of e-commerce systems to increased use among suppliers of various goods and services. This will also improve competence in IT and e-business and thus undoubtedly also the confidence in these tools.

3.3.2 Recommendations

- To increase the public sector's use and supply of e-services, especially in the areas of e-procurement and e-invoicing, with the dual aim of enhancing the efficiency of the public sector's own activities and promoting the development of e-commerce in the rest of society.
- To encourage Nordic exchange of experience in e-procurement and initiatives in this field, including public procurement portals, especially based on the EU Directives on Public Procurement.

4 Recommendations

The working group's recommendations are addressed to the Nordic Council of Ministers. It will be up to the Nordic Council of Ministers and the individual Nordic Governments, in consultation with the relevant public authorities and organisations, to decide which player will be given the assignment of implementing the recommendations.

4.1 General Recommendations

- To monitor the development in e-commerce and e-business regarding:
 - Benefits for consumers.
 - Consumer confidence.
 - IT and e-business competence in enterprises.
 - Standardisation and interoperability.
 - Electronic public procurement.

There should be special focus on the situation of children and youngsters as well as small and medium-sized enterprises.

- To continue the Nordic co-operation on compilation and production of relevant statistics, analyses and benchmarking in the field of IT and e-commerce for the purpose of closer and more accurate monitoring of the development (see above) and to encourage enterprises to participate in benchmarking activities.³²
- To increase the awareness of the positive effects of e-commerce and e-business for both consumers and enterprises.
- That the Nordic Council of Ministers and the Nordic States are seen as setting a good example as users of IT, e-commerce and e-business.
- To encourage Nordic exchange of experience and good examples as well as the performance of joint projects.

4.2 Specific Recommendations

Strengthening Consumer Awareness of Benefits of E-commerce

- To make consumers aware of the information requirements that may be made in connection with e-commerce.

³² For example the Danish initiative for a Nordic e-barometer, www.ebarometer.dk

Action:

- Preparation of a checklist with important items of information.
- To encourage representatives of consumers and trade and industry to co-operate on projects aimed at creating increased user friendliness.

Action:

- Preparation of guidelines or recommendations for user friendliness.
- Initiation and more extensive use of user tests on e-commerce.
- To continue to develop and offer e-services and information at public web sites with good user friendliness.

Increasing Consumer Confidence

- To inform consumers about their rights and obligations in connection with e-commerce, including e-payments, and to urge them to be critical in their evaluation of e-commerce web sites.

Action:

- Preparation of checklists with important items.
- To inform enterprises about the existing rules under consumer law.

Action:

- Arrangement of information seminars (including exchange of good and bad examples) in co-operation with trade organisations.
- Inclusion of information in state IT competence initiatives aimed at enterprises.
- To encourage joint Nordic projects on:
 - Impartial dispute resolution systems.
 - Market supervision.

Increasing Enterprises' Competence in IT and E-business

- To continue the implementation of Nordic and national IT competence-increasing activities, especially for small and medium-sized enterprises.

Action:

- Arrangement of knowledge-improving seminars with the focus on the important role of the enterprise's management in the development and establishment of e-business, highlighting the potential for gains offered by e-business and stimulation of increased co-operation between various players.
- Inclusion of competence in IT and e-business as well as information security aspects in other competence-increasing activities for small and medium-sized enterprises.

- Exchange of experience gained from support for concrete implementation of e-business initiatives in small and medium-sized enterprises.
- Encouragement of the development of simple tools for calculation of the potential gains offered by e-business for the enterprise.
- To disseminate information about existing international recommendations and guidelines³³ in the area of information security and to provide advice on how enterprises may protect themselves against the most common security problems.
- To encourage the dialogue between the educational system, including colleges and universities, and trade and industry on the possibilities and need for including IT competence and e-business competence in educational programmes.

Promoting Increased Standardisation and Interoperability

- To monitor closely the development of standardisation-related barriers to e-commerce.

Action:

- Preparation of a report on standardisation problems in e-commerce in the Nordic countries.
- Encouragement of a Nordic dialogue on the experience gained from various standardisation initiatives and consideration of the possibilities of more in-depth Nordic standardisation co-operation, especially in electronic public procurement. Discussions of possible use and adaptation of existing international standards to Nordic languages and conditions should form part of such co-operation.

The State Should Set a Good Example

- To increase the public sector's use and supply of e-services, especially in the fields of e-procurement and e-invoicing, with the dual aim of enhancing the efficiency of the public sector's own activities and promoting the development of e-commerce in the rest of society.
- To encourage Nordic exchange of experience gained from e-procurement and initiatives in this field, including public procurement portals, especially with a view to compliance with the EU Directives on Public Procurement.

4.3 Proposals for Continued Work

The working group's mandate and areas of focus do not cover all areas of relevance to e-commerce and e-business. The working group therefore encourages other relevant Nordic forums to monitor the development and initiate joint projects in their areas that

³³ *OECD Guidelines for the Security of Information Systems and Networks: Towards a Culture of Security*, July 2002

are related to e-commerce and e-business. The following areas are regarded as being of special interest and importance in this connection:

- The mobile e-commerce market, including barriers to payment via mobile phone and so-called micropayments.
- Information security: justified or unjustified lack of confidence among consumers and enterprises.
- Further development of broadband: enterprises' use of broadband in their business activities and the connection between consumers' access to broadband and their use of e-commerce.

Relevant IT and telecommunications policy issues should be included in such projects. Existing reports in these areas should be studied.³⁴

³⁴ The Nordic Committee of Senior Officials for Information Technology has, among other documents, obtained reports on broadband and convergence: *IT infrastrukturstudie om nordisk bredbåndspolitik (IT Infrastructure Study on Nordic Broadband Policy)*, PLS Rambøll Management, August 2003 and *Konvergensutvikling i Norden (Convergence Development in the Nordic Countries)*, KPMG Advisory, November 2003

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Appendix 1: The Working Group's Mandate

NORDIC COUNCIL OF MINISTERS

Appendix 2

The Secretariat

10 December 2001

Mandate

for

**the Trade and Industry and Consumer Sectors' ad hoc working group for
electronic commerce and IT-related issues**

(Short name: "The TI & C IT Group")

1. Objective

The objective of the working group is to ensure the further development of the Nordic co-operation on electronic commerce based on consumer interests and trade and industry policy objectives, with the focus on securing the right basic conditions for creating consumer confidence in e-commerce. The working group is also to evaluate trade and industry-related IT issues.

The working group will function as an initiator, consultant and co-ordinator in relation to the Nordic Committee of Senior Officials for Consumer Issues and the Nordic Committee of Senior Officials for Trade and Industry Issues.

The working group is given independent decision-making competence for the implementation of new activities, which are to be initiated in accordance with the guidelines laid down in:

- the Council of Ministers' budget,
- the working group's annual activity plan (*cf. point 4*),
- any guidelines from the Nordic Council of Ministers for Consumer Issues and the Nordic Council of Ministers for Trade and Industry Issues,
- any guidelines from the Nordic Committee of Senior Officials for Consumer Issues and the Nordic Committee of Senior Officials for Trade and Industry Issues,
- general guidelines for the co-operation in the Nordic Council of Ministers.

2. Tasks

The working group is to:

- exchange information about electronic commerce (data from national initiatives, reports, studies and surveys, etc.),
- the working group is to initiate and perform projects of relevance to consumers and trade and industry in the Nordic countries as well as electronic commerce and electronic means of payment. Nordic consumers are uncertain about the rules, customs, payment methods and established practices for rescinding purchases (refunds) in connection with electronic commerce. Issues concerning consumers' and trade and industry's expectations for, experiences with and confidence in electronic commerce are to be studied. The competitiveness of Nordic trade and industry and consumers' position in electronic commerce, in a Nordic perspective and globally, are to be strengthened. The working group will select its work themes in accordance with the enclosed indicative list of project proposals (*see Appendix 1 to the mandate*).

In addition, the working group is to:

- focus on other trade and industry and consumer-related IT issues and be a link between the Nordic countries regarding the exchange of information in the form of reports, analyses, etc. on the development in the new knowledge-based economy of relevance to trade and industry in the Nordic countries.

3. Composition of the working group

The countries and the autonomous territories will each appoint a representative from the consumer sector and the trade and industry sector respectively. The Secretariat for the Nordic Council of Ministers will participate as much as possible in the meetings of the working group. The Nordic Council of Ministers' general rules on equal gender distribution on committees must be followed (60/40 % distribution).

The chairmanship of the working group will follow the chairmanship of the Nordic Council of Ministers. The chairman will be responsible for handling meetings (notice convening meetings, agenda, chairing meetings, minutes, etc.) and for the work progressing according to plan.

The members of the working group must

- have competence in electronic commerce from a consumer point of view and a trade and industry point of view respectively. The representative of the trade and industry sector must also have wide knowledge of trade and industry-related IT issues,
- be able to communicate information about national conditions and national views,
- ensure national rooting of and follow-up on the group's work.

Expenses for secretarial assistance will be covered by the funds that are made available for the working group's activities (*cf. point 5*).

The Nordic Industrial Fund, NI, will handle the following tasks on behalf of the Nordic Committee of Senior Officials for Trade and Industry Issues and the Nordic Committee of Senior Officials for Consumer Issues:

- the secretariat function for the working group,
- preparation – in co-operation with the country holding the chairmanship – of a draft agenda, meeting documents and draft minutes,
- routine assistance in the form of a fixed address, postal service, etc.,
- project administration and financial management,
- NI will make its web facilities available so that the working group can establish an internal web page and a web page for external information,
- NI will provide a contact person, who can support the working group.

The tasks of the Nordic Industrial Fund do not cover the preparation of reports and analyses. The working group will, moreover, work completely independently in relation to NI.

4. Activity plan and reporting

The working group must submit an outline for an activity plan and the projected budget framework for the coming calendar year to the Nordic Committee of Senior Officials for Consumer Issues and the Nordic Committee of Senior Officials for Trade and Industry Issues (for use for a provisional sector budget) each year by 1 April at the latest. The final activity plan and draft budget must be submitted to the Nordic Committees of Senior Officials by 15 October at the latest.

By 15 December at the latest, the Nordic Committee of Senior Officials for Consumer Issues and the Nordic Committee of Senior Officials for Trade and Industry Issues will provide the working group with any comments that they may have or their approval of the activity plan.

Each year, by 15 February at the latest, the working group must report to the Secretariat for the Nordic Council of Ministers on the results of the group's work in the previous calendar year. The report must include information about

- policy discussions conducted,
- exchange of information in the working group,
- report on the activities that have been funded by funds from the Consumer and Trade and Industry Sectors as well as an evaluation hereof,
- in addition, accounts for the funds used must be presented.

5. The working group's budget

For 2002, an amount of DKK 600,000 will be available for the working group's performance of projects and activities. The Nordic Committee of Senior Officials for Trade and Industry Issues and the Nordic Committee of Senior Officials for Consumer Issues will each contribute DKK 300,000. This amount is to be used for reports, analyses, travelling expenses for external speakers, experts in connection with the holding of meetings, etc. The excess amount from the Trade and Industry Sector's ad hoc working group for electronic commerce and trade and industry-related IT issues will be transferred to the working group.

By 15 December at the latest, the Nordic Committee of Senior Officials for Consumer Issues and the Nordic Committee of Senior Officials for Trade and Industry Issues will inform the working group about the amount that will be allocated for the working group's activities for the following year.

Each individual participant in the working group will cover his or her own expenses for travels, accommodation, subsistence allowance, etc. in connection with the holding of meetings. No fee is paid to the members of the working group for their participation in the work.

6. Mandate period

The working group's mandate will terminate on **31 December 2003**.

The Nordic Committee of Senior Officials for Consumer Issues and the Nordic Committee of Senior Officials for Trade and Industry Issues may decide that the working group is to continue its work beyond the above period, and the Nordic Committees of Senior Officials may also decide at any time to discontinue the working group, for example because of a change in the prioritisation of tasks in the overall Nordic cooperation on consumer issues and trade and industry issues.

* * *

Appendix 2: Summary of the Working Group's Reports

Summary of Reports Produced by the “TI & C IT Group” 2000-2003

Contents

1. Self-regulation of Electronic Commerce in the Nordic Countries
2. State Electronic Services for Nordic Enterprises
3. Factors for Successful E-commerce
4. Payment Solutions in Electronic Commerce
5. Barriers to and Opportunities for E-transactions in Nordic SMEs

(The full version of all the reports is available at www.norden.org, under the areas of co-operation Consumer and Trade and Industry respectively).

1. Self-regulation of Electronic Commerce in the Nordic Countries

Background

One of the reasons why consumers' use of e-commerce has failed to increase by the expected rate may be that users feel insecure about shopping via the Internet. Self-regulation may therefore be one way of increasing consumer confidence. A general problem in the field of IT is that the regulation in this field lags behind the generally rapid development. Self-regulation may therefore be a supplement to legislation. In 2001, the Nordic working group for electronic commerce (the TI & C IT Group) completed the report *Self-regulation of Electronic Commerce in the Nordic Countries*. Since the report was written, there has not been any significant increase in the extent of self-regulation.

Self-regulation of electronic commerce

The report shows the importance of increased confidence among consumers if e-commerce is to take off. The conclusion is that good self-regulation is one way of increasing confidence.

General omnibus clauses on good marketing practices, on good credit granting practices and on unreasonable contractual terms may be supplemented with guidelines and agreements between public authorities and representatives of trade and industry. Through self-regulation, trade and industry is given an opportunity to become involved in and take increased responsibility for the development. Wide support from enterprises is important. Good self-regulation may result in better consumer protection and more effective supervision as well as increased goodwill for the enterprises. The codes that are drawn up must be open to all those who want to participate and who meet the requirements for joining these systems. Major players must not simply be allowed to dictate the terms and conditions. Otherwise, there is a risk that the codes may result in restriction of competition for small and medium-sized enterprises in particular.

Effective self-regulation requires enforcement and sanctions so that users have an opportunity to assert the rights that the rules provide. This means that there is a need for impartial dispute resolution bodies, so-called Alternative Dispute Resolution (ADR). So-called Online Dispute Resolution (ODR) is also something that is being discussed in line with e-commerce becoming increasingly global. In the European Union, there is a positive attitude to self-regulation of electronic commerce. A joint European ADR system known as the European Extra-Judicial Network (EEJ Network) has been set up with national contact points for dissemination of information and support for consumers who become involved in disputes with suppliers in other member states. Self-regulation of electronic commerce in the Nordic countries is well developed from an international point of view. See appendix 3 for current information about self-regulation in the Nordic countries.

Trustmarks

Trustmarks for e-commerce are available in several of the Nordic countries (see appendix 3). The objective of trustmarks is to increase consumer confidence in electronic marketplaces. The enterprise undertakes to follow certain guidelines in its activities and is thus given the right to use the trustmark. In addition to providing security for consumers, the trustmark schemes also offer customs, practices and services for enterprises, for example some form of dispute settlement or insurance scheme. The difference between trustmark schemes and industry rules is more practical than theoretical. The trustmark schemes are based on rules that entitle those who comply with them to use a trustmark and the accompanying services. Compliance with industry rules does not give any such rights. However, they are just as important in the creation of good customs and practices for e-commerce.

2. State Electronic Services for Nordic Enterprises

Background

The IT development in the Nordic countries should generally be managed by the market players. However, the State has a role in regulation and promotion initiatives where this is regarded as necessary. The State also has an important role in setting an active good example in its use of IT in general and in e-commerce in particular. In 2001, the Nordic working group for electronic commerce performed a Nordic analysis of electronic services aimed at enterprises, which resulted in the report *State Electronic Services for Nordic Enterprises*, which is summarised below.

Electronic services for enterprises

In international comparisons, Nordic public authorities are at the forefront regarding the provision of electronic services for enterprises. Nordic trade and industry and the general public have great confidence in the public authorities, which provides a sound basis for rapid continued development of the electronic services offered by the State.

The development of state electronic services for enterprises contributes to enhancing the efficiency and improving the quality of the activities of the State and the enterprises as well as to improving the international competitiveness of Nordic trade and industry. In the Nordic countries, the central government authorities have developed electronic services for, for example, the submission of returns and other statements, co-ordinated dissemination of information and public procurement (see the report's collection of examples of state electronic services for enterprises). It is important that the services are simple and have a practical aim in order to meet enterprises' requirements. State electronic services for enterprises should have the necessary information security mechanisms, which means that the development of digital signatures and encryption is important in this context.

3. Factors for Successful E-commerce

Introduction

Trade and industry, the public authorities and consumer organisations in the Nordic countries have expected e-commerce to be more successful than what has actually been the case so far. The Nordic countries have come relatively far in the development of ICT. There is widespread ownership of PCs, and many have access to the Internet. Consumer competence is relatively high. Several thousand Internet shops have been set up in the 5 Nordic countries. So far, e-commerce has first and foremost been successful in business-to-business relations. The basic conditions for a breakthrough on the consumer markets are present, but only a few Internet shops have succeeded in this, whereas most have failed. Based on an assignment from the working group, the Norwegian National Institute for Consumer Research (SIFO) has analysed possible reasons for this. The project was implemented in the second half of 2002 – January 2003 and resulted in the report, *Factors for Successful E-commerce*.

Factors for successful e-commerce

The report focuses on Nordic Internet commerce and on the question of what contributes to successful e-commerce for consumers. Selected Nordic Internet shops in the travel industry and in the book trade were examined and interviewed.

In their replies to the question of what constitutes potential pitfalls, the Internet shops especially mention problems connected with technology and technical solutions, prices and costs, difficulties in reaching customers, that customers have to wait, that they do not understand what they need to do as well as the competition that the shops face. Internet shops generally state that they receive few complaints from customers. Questions from customers are generally of a technical nature and concern the entry of data, payment methods, prices, deliveries, etc. There seems to be surprisingly few questions from customers about protection of personal data and payment security.

A majority of the Internet shops think that their earnings meet the expected level. Those who are not completely satisfied with their earnings focus primarily on competitiveness and cost control in their views. The group that is satisfied with their earnings are more concerned with customer-oriented matters: having the right conditions for a favourable and positive transaction, a good purchasing experience characterised by simplicity, that delivery is made as promised, that good support is provided as well as guidance and answers to questions and that information is provided with added value for the customers. It is pointed out that the enterprise must not stop taking customer requirements, wishes and expectations into consideration once the Internet shop has been set up and established, but that these considerations must become an integral part of the enterprise's operations.

It goes without saying that a prerequisite for successful commerce today is that business transactions are based on customers' and consumers' competence and knowledge. It may seem as if the Internet shops that have failed have not attached sufficient importance to this. Studies and surveys have shown that there is still a large share of those who try to make a transaction via the Internet who fail to do so. This indicates that there has been too much focus on technical solutions from a top-down perspective and that the enterprises have forgotten that Internet commerce must be adapted to consumers'

everyday life. In relation to conventional commerce, it is even more important that the Internet shops provide their customers with a positive purchasing experience, as it is easier to “scare off” customers in connection with Internet commerce.

It has turned out that alliances between pure Internet companies and conventionally established shops may be an advantage for both these groups. The expertise of Internet shops may be valuable to shops that have not yet established themselves on the Internet, while logistics, customer service and handling of goods are based on the longstanding experience that conventional shops have in these matters. Brand recognition represents low-cost marketing, and an established parent enterprise may invite confidence and trust, from which the Internet shops may benefit.

The report concludes that successful e-commerce is connected with considerations for consumers’ interests, wishes and requirements as well as solutions that capture the range of consumers at whom the Internet shops wish to target the products and services that they offer. These are solutions that create consumer confidence and meet consumer requirements in terms of mastering, accessibility, protection of personal data, payment security, etc. Simplicity, predictability and recognition are important factors for customers. Standardised systems and arrangements for e-commerce, including for protection of personal data and payment security, are assumed to be of importance in relation to consumer confidence and mastering of shopping via the Internet. The same applies to correct information to customers at the right time and at the right place as well as good feedback and communication systems. It is pointed out that e-commerce can contribute to customer satisfaction through diversity, flexibility, accessibility and saving of time and money. This may, in turn, provide added value for both enterprises and consumers.

4. Payment Solutions in Electronic Commerce from a Nordic Perspective

Background

Electronic commerce has not increased at the rate expected during the “Internet boom”, especially not for e-commerce aimed at consumers, B2C. E-commerce between businesses, B2B, is considerably more widespread, but small enterprises lag behind the rate of development seen for large enterprises. Mobile commerce, so-called m-commerce, is still in its infancy and currently focuses primarily on logo types, ringing signals and sports results. There is thus a potential that is not being fully utilised. One reason why e-commerce has not really taken off yet may be that electronic payments are still not used to any great extent. This may have the effect that sufficient efficiency enhancement gains are not generated in e-commerce and that the full benefit of e-commerce is consequently not experienced. On this basis, the Nordic working group for electronic commerce gave the Norwegian company Teleplan A/S the assignment of analysing the use of and barriers to electronic payments, both from consumers’ point of view and from enterprises’ point of view, and both via fixed Internet and via mobile services. This project was implemented during 2002-2003 and resulted in the report *Analysis of Payment Solutions in Electronic Commerce from a Nordic Perspective*.

Payment solutions in electronic commerce

The report shows that the use of various types of payment solutions differs between the Nordic countries. It is noted in the report that the market for electronic payment solutions is still relatively immature, despite the Nordic countries being regarded as being at the forefront in this field.

EDI solutions and purchasing cards are the most common payment solutions in the Nordic countries for commerce between businesses, so-called B2B. The Nordic countries differ from each other when it comes to commerce between businesses and consumers, so-called B2C. The use of the Dankort debit card dominates in Denmark, whereas there is little use of credit cards and micropayments. Internet banking solutions are the most common payment solutions in Finland, whereas there is moderate use of debit and credit cards. Credit cards are the most widespread payment solution in Iceland. Invoices and cash on delivery (COD), together with debit cards, are the most common payment solutions in Norway. Credit cards are the most common payment solution in Sweden, while Internet banking solutions is gaining ground.

Mobile commerce, so-called m-commerce, is still at an early development stage with limited supply of services and limited use. Low margins for content providers may hamper the further development of debitable content via mobile commerce.

The Nordic countries are at the forefront when it comes to the focus on safety and security, which the extensive use of Internet banking shows. Digital signatures are an area for further development.

The major driving forces for e-commerce have been supply and demand for games, adult entertainment and banking services. Purchases and sales of music, travels, computer equipment and books have also been driving forces behind the market development. These areas are expected to continue to be dominant areas for the increased use of e-commerce. Regarding the increase in use of electronic payment solutions, the driving forces are primarily confidence in the Internet banking solutions. On the supplier side, terminals and systems are of central importance, whereas payment solutions connected with mobile phones are important driving forces regarding telecommunications and content.

The view is that barriers to increased use of electronic payment solutions are that the e-commerce solutions themselves are not sufficiently good. There are thus technical barriers and security barriers and, furthermore, the solutions are not sufficiently effective or user friendly. When it comes to end customers, lack of competence and lack of incentives for using electronic payment solutions constitute barriers to e-commerce.

5. Barriers to and Opportunities for E-transactions in Nordic SMEs

Background

Enterprises' use of e-commerce continues to increase, but small and medium-sized enterprises (SMEs) are lagging behind. In political contexts, both nationally and internationally, e-commerce is often mentioned as an important means for promoting competition. For SMEs, e-commerce also constitutes an effective and relatively low-cost tool for gaining a foothold on international markets and for achieving efficiency enhancement gains. However, there are also a number of barriers that are preventing many

SMEs from utilising e-commerce. A large number of reports have already been published on this subject – at national, Nordic and European levels and under the auspices of the OECD, etc. On this basis, the Nordic working group for electronic commerce has asked PLS Rambøll Management to analyse, based on existing surveys, the barriers to and opportunities for the use of e-business by SMEs in a wide sense. The project was implemented in 2003 and resulted in the report *Barriers to and Opportunities for E-transactions in Nordic SMEs – Analysis based on existing surveys*.

Barriers to and opportunities for e-transactions in Nordic SMEs

The general picture that emerges is one of SMEs benefiting from e-business. In particular, e-business affects the *way* in which the enterprises conduct their business, with internal work processes being made more efficient. The development of services or products, on the other hand, is affected by e-business to only a limited extent.

The report concludes that the very basic IT infrastructure, such as computers, Internet access and web sites, is by now in place in smaller enterprises. In the important area of high-speed connections, however, small enterprises, unlike large ones, are not quite there yet. The rapid growth in the number of high-speed connections from 2001 to 2002 indicates that this will soon change though, and so the question of basic infrastructure will no longer be a major policy issue.

Looking at the use of IT in smaller enterprises, the report shows that SMEs mainly use the Internet for information retrieval and financial transactions, whereas the more advanced use of IT for business purposes is still at a low level in SMEs. It is especially in areas such as Internet sales, EDI and advanced systems such as SCM, CRM and Knowledge Management that SMEs are lagging behind larger enterprises.

This can be interpreted as unexploited potential for increased business use of IT in SMEs for both cost minimisation and Internet sales, but also as rational financial prioritisation of the limited resources in these enterprises.

The most important barriers to IT use are generally lack of security and too slow, unstable data communication. These barriers affect SMEs to the same degree as larger enterprises. What marks SMEs out, however, is that they are more concerned about data protection and security problems than enterprises with 250+ employees.

The barriers to e-business can be divided into internal and external barriers. Internal barriers are linked to the enterprises' management, lack of qualified staff and lack of capital. External barriers are mainly linked to a lack of demand. Enterprises experience a lack of readiness among suppliers, customers and partners. There is also still uncertainty on the market regarding central standards and principles. This applies to, for example, catalogue structures and to exchange of e-commerce documents, and there is also considerable excess supply of marketplaces. The lack of standardisation increases the expenses incurred by SMEs and thus constitutes a barrier to the use of e-business. It should be noted that there are differences between the Nordic countries, with Finland and Denmark in particular encountering both internal and external barriers of greater substance than Sweden and Norway.

A further analysis of barriers to e-commerce with regard to online buying and selling shows that enterprises perceive customer potential as too small and their products as unsuitable for trading on the Internet. A survey of enterprises that already sell products

over the Internet indicates that lack of demand and lack of security are the greatest barriers. The size of enterprises is of no great significance in this respect.

10 points regarding policy consequences of the report:

- 1: Take the entire value chain as a starting point – E-transactions rather than e-commerce
- 2: Three explanations for e-business scepticism and their policy consequences: increase knowledge, focus on those industries and business types where e-transactions are actually relevant, and focus on e-transactions in the broad sense
- 3: Focus on the benefits of e-transactions
- 4: Match the initiative to the industry
- 5: Focus on how SMEs can share the benefits of e-commerce
- 6: Infrastructure will take care of itself
- 7: Focus on areas where SMEs are lagging behind: the more advanced forms of e-business
- 8: Focus on promoting quality in IT use
- 9: Focus on general management and skills development
- 10: B2C e-commerce should be encouraged through consumer confidence and broadband

Appendix 3: Nordic National Initiatives – A Collection of Examples

Consumer Aspects

Confidence

Denmark

In 2002, the *Consumer Ombudsman* created a web site, where consumers and enterprises can obtain guidance, for example in the form of a checklist, about the rules for commerce and marketing on the Internet. The Consumer Ombudsman plans to extend and update the web site in the spring of 2004. (www.net-tjek.dk)

In September 2003, the *National Consumer Agency of Denmark* was appointed as the consultative contact point in pursuance of the E-commerce Directive. In addition, the National Consumer Agency of Denmark/the Consumer Centre will open a consumer portal in April 2004, where the focus areas will include e-commerce and the problems connected with commerce on the Internet. (www.forbrug.dk)

Finland

The *Finnish Consumer Agency's* web site contains an "Internet Shopping Assistant", the object of which is to help consumers assess how reliable Internet shops are. The guide contains questions through which consumers can easily find out whether the enterprise provides sufficient information about itself, its products and terms of purchase before the purchase is made. By using the guide, consumers can avoid problems. (www.kuluttajavirasto.fi/hjalpreda/)

Iceland

The Competition Authority in Iceland is responsible for describing and maintaining information about commerce on the Internet. This also involves making the information and guidance accessible to consumers and enterprises. The Icelandic Competition Authority's supervisory work, information and guidance are based on existing Acts and rules that apply to this field. The Competition Authority is in the preparatory stages of the performance of this task. This involves an analysis of the existing web sites on which consumers can buy goods and services. In continuation of the analysis, the Competition Authority will send comments and remarks to the enterprises that do not meet the existing code. The Competition Authority plans to extend and update the web site in the spring of 2004 and thus make the above information more accessible to all users. The objective is to improve security, ensure that all commerce takes place in accordance with the existing Acts that apply to this field and to open up a dialogue on this subject in the population. (www.samkeppni.is)

Norway

The *Norwegian Consumer Ombudsman* has been appointed as the national contact point for e-commerce and has prepared information material on the Internet under the title “Shopping on the Internet – Step by Step”. This material describes a normal transaction process on the Internet and contains links to the various requirements that apply at each stage. In addition, there are relevant links and references to Acts and to other current practice from the Consumer Ombudsman that is of relevance to e-commerce.

National Strategy for Information Security was presented by the Ministry of Defence, the Ministry of Justice and Police and the Ministry of Trade and Industry in June 2003. The strategy focuses on measures in three areas: Creation of awareness among households, preparation of a “teaching pack” for use in primary and secondary schools as well as initiatives aimed at increasing competence in IT security in enterprises. (www.enorge.org)

SAFT (Safety, Awareness, Facts and Tools) is a new educational programme for children and youngsters on safe use of the Internet. It was launched in Norway on 6 February 2004. SAFT is a European co-operation project initiated under the EU’s action plan for safe use of the Internet. The learning programme consists of interactive quizzes and exercises for use in the classroom and at home together with the pupils’ parents. The modules comprise themes such as learn how to surf, the Internet as a work of reference, criticism of sources, Internet etiquette and Internet knowledge about personal data, chatting, bullying and commercial pressure. (www.saftonline.no)

In Norway, standard terms of sale have been prepared, and they have also been translated into English. These terms of sale will make it easier for consumers to keep up to date. They become recognizable, and consumers know that when a shop uses these terms of sale, this means that the transaction is made in accordance with the guidelines of the existing legislation and Nsafe (for further details, see under Self-regulation below). This requires a system for follow-up, as the existing legislation changes, as well as quality assurance of the implementation of the standard terms. Such a system has not yet been established in Norway.

Sweden

All the initiatives taken by the *Swedish Consumer Agency/Consumer Ombudsman* in this field can be found under the subject area of Internet and IT at the Consumer Agency’s web site. Here, you will find “Good advice for safe surfing on the Internet”, which is a checklist for what consumers should bear in mind before entering into an agreement via the Internet. Consumers are also provided with information about the rules that apply if he or she has surfed on the Internet and has received invoices for services that have not been used. The web site also contains examples of how consumers can be tricked and defrauded on the Internet. The Consumer Agency also provides the so-called “fraud stopper”, which is a program that protects telephone modems against programs that call up pay-for-use sites, so-called modem hijackers. The Consumer Agency’s web site contains a link to the Nordic Consumer Ombudsmen’s views and positions on commerce and marketing on the Internet. (www.konsumentverket.se)

The *Swedish National Post and Telecom Agency's* (PTS) web site on safety and security on the Internet provides information aimed at support for those who search for information and shop on the Internet. The issues that are of the greatest current relevance are presented under "Current issues". A special section provides information about how the user and his or her family can use the Internet more safely. This section also contains the web-based training programme, "Safer Surfing". (www.pts.se)

Under the heading E-commerce at its web site, *Konsument Europa*, the Swedish European Consumer Centre, provides data consisting of information about consumer protection in the EU (with information about rules, consumers' right to rescind from contracts and delivery times) and information about the rules that apply to e-commerce outside EU Member States. The web site also contains information about how to file complaints and examples of notices of cancellation. The web site also contains reports from studies and surveys on commerce via the Internet within the EU. (www.konsumenteuropa.se)

The web site of *Swedish Customs* contains information about the customs and excise duties, etc. that may be levied in connection with commerce in and outside the EU. (www.tullverket.se)

International initiatives

The Internet Shopping Assistant (see under Finland above) is an example of the international co-operation between consumer authorities. The guide was originally produced by the Office of Consumer Affairs in Canada. The guide is available at the web site www.econsumer.gov/ in English, Spanish, Korean, French and German. At *eConsumer.gov*, there is also a databank, where consumers can report any problems that they have experienced in connection with electronic commerce. By means of this databank, the supervisory authorities in various countries receive information about maverick e-commerce enterprises, various ways in which consumers are being tricked and defrauded and the most common reasons for complaints. This information enables the supervisory authorities to intervene quickly.

eConsumer.gov is also available with information about alternative dispute resolution bodies, about investigations of complaints about purchases made on the Internet, about various types of e-commerce and about the level of consumer protection in different countries. Details are also provided on how to contact consumer authorities in 30 countries.

ICPEN (International Consumer Protection and Enforcement Network), the international network for public authorities that supervise marketing practices, is behind eConsumer.gov. Finland holds the chairmanship in ICPEN until the spring of 2004. An important objective during the Finnish chairmanship is to increase co-operation between the public authorities that are members of the network and to develop internal network communication. (www.imsnricc.org/)

Self-regulation

Denmark

The Danish *E-handelsmærket* is administered by E-handelsfonden. The trustmark scheme is supported by the business sector, public authorities and trade organisations and other interest group organisations. The trustmark scheme includes a body that handles disputes about the trustmark scheme itself. Business and consumer interests are represented in this body. At the end of January 2004, 110 business operators used the trustmark scheme. A further approximately 50 Internet shops have applied for registration under the scheme and are being reviewed. (www.e-handelsfonden.dk)

Finland

The use of the former Finnish trustmark schemes for electronic commerce, *SafeShop*, which was administered by the banking and insurance group Sampo, and *FinSafe* (the ScanSafe trustmark in Finland), which was administered by CommerceNet Finland, has been discontinued for the time being. The reason why the FinSafe project has been discontinued is that central players were not willing to show commitment to FinSafe. Another reason was that the volumes of electronic commerce between the Nordic countries are still quite small.

Tieke (the Finnish Information Society Development Centre) has examined the need for trustmark schemes in Finland (Irma Rantonen, 2001). According to the report, the need for such schemes is not particularly great. Instead of specific trustmark schemes, general customs, practices and rules in electronic commerce are being discussed by trade and industry in connection with export and e-commerce regulation projects.

Iceland

There is no trustmark scheme for e-commerce in Iceland. *The Icelandic Consumer Agency* is working on the preparation of standards for rules on trading aimed at providing information to consumers. Likewise, a set of rules is being prepared for traders that want to sell goods or services on the Internet. In both cases, the rules will be based on the existing Acts in this field as well as international conditions. The Consumer Agency attaches importance to involving trade organisations and other interest group organisations in this work.

Norway

The Norwegian *Nsafe* trustmark is administered by the interest group organisations Eforum and Forbrukerrådet (the Norwegian Consumer Council). More than 40 businesses currently use Nsafe. Nsafe has a number of guidelines that the shops must follow in order to safeguard consumer rights. The trustmark scheme includes a tribunal that hears cases in which shops that use the Nsafe trustmark fail to comply with the Nsafe guidelines. Businesses must undergo an extensive process in order to acquire the right to use the trustmark, and no shop has been awarded the trustmark without significant changes having been implemented. Great importance is attached to the neutrality of the trust-

mark in the relations between the two interest groups of consumers and Internet shops. (www.nsafe.no)

Nettnemda, the Norwegian Internet regulatory body, is a self-regulation initiative initiated by IKT-Norge (ICT Norway). The objective of such a self-regulation mechanism is that the industry itself assumes responsibility for and contributes to ensuring that the Internet is not used for spreading illegal and harmful content. The Internet regulatory body, *Nettnemda*, is an independent complaints body that is responsible for handling ethical rules of conduct for the Internet. These rules are laid down by IKT Norge and Internettforum, and the objective is to provide fundamental rights for consumers and service providers on the Internet. The principal task is to balance considerations for freedom of expression with considerations for privacy and personal integrity. The complaints body can make binding decisions on issues that concern enterprises that operate on the Internet where the service provider is under an obligation to accept the ethical rules of conduct that apply to the Internet. The complaints body can also comment on all issues that fall within its field of competence. All parties who feel that their fundamental rights have been violated by players on the Internet may file a complaint with the complaints body. The complaints body has now existed for more than two years. (www.nettnemda.no)

Sweden

There is no trustmark scheme in Sweden. The Association of Swedish Chambers of Commerce is, however, involved in numerous projects regarding self-regulation on the Internet. Under a joint European project – “On-line Confidence” – the Stockholm Chamber of Commerce is working on the preparation of rules and a framework for alternative dispute resolution and trustmarks. The ICC (International Chamber of Commerce) is also interested in this field, and the Swedish ICC participates in a group of experts that works internationally on alternative dispute resolution. (www.chamber.se)

Competence

Denmark

Via the action plan for e-commerce, Denmark has initiated a pilot project in the form of *training and consultancy initiatives* aimed at small and medium-sized enterprises (SMEs). The initiatives are organised via 6 growth groups, typically regionally based, where the enterprises receive instruction and share experience. 10-12 enterprises participate in each growth group. In addition to the instruction activities, each participating enterprise also receives individual consultancy in the form of 3 visits by a consultant as well as telephone advice. The initiatives focus on realising tangible business gains through IT use and subsequently to communicate these examples of best practice widely to other SMEs. The participants in the initiatives have been found through a screening process, which is to ensure that project participants in each individual growth group are more or less in the same situation in terms of IT maturity and business conditions. The project has a budget of DKK 2.5 million.

In addition, in its *IT and Telecommunications Policy Action Plan* for 2003, the Danish Government focuses on the use of e-learning for competence development and supplementary training in small and medium-sized enterprises and in the public sector. A pool

of DKK 10 million has been allocated for e-learning projects. Until 2005, these pilot projects are to gather experiences and highlight how e-learning can be used to improve the level of competence in Danish workplaces. (www.e-kompetencer.dk)

Finland

The object of the *eAskel programme* of the 15 Employment and Economic Development Centres (TE centres) is to highlight for business managers the opportunities offered by data networks for the development of the enterprises' business activities. The programme especially aims to identify the central points in e-business that the enterprise can improve.

eAskel is an expert service that maps and develops the business activities of enterprises on the Internet. Activities on the Internet comprise utilisation of the Internet and other information networks in the enterprise's internal and external activities. By means of eAskel, the management in small and medium-sized enterprises is provided with tangible information about the development opportunities that exist for e-business. eAskel also contributes to identification of the most important development requirements in the enterprise regarding its activities on the Internet.

eAskel is designed for enterprises that plan to take the first steps toward activities on the Internet. The programme comprises two half-day consultation meetings with the enterprise as well as analysis and planning based on these meetings. On the basis of the consultation, a schedule is fixed for the development of the enterprise's e-business. The programme consists of two meetings with certified experts. The programme results in a written report, which is sent to the enterprise. The report contains an evaluation of the points that can be improved and of the enterprise's opportunities for using e-business. eAskel costs 600 euro for the enterprise. If required, the programme can be extended with further consultation for a fee of 300 euro per day.

The Finnish Ministry of Trade and Industry, the Finnish Ministry of Agriculture and Forestry and the Finnish Ministry of Labour have pooled their regional resources for *the TE centres*, see the above. These fifteen centres offer enterprises, entrepreneurs and individual citizens a wide range of consultancy and development services.

The eAskel programme is marketed at the information portal *verkkokaveri.fi*, which provides small and medium-sized enterprises with advice and contacts for development of their e-business competence. The Verkkokaveri ("The Friend on the Internet") portal contains news, case histories of enterprises that have implemented IT development projects (approximately 60), manuals on e-commerce and IT application, information about seminars and ongoing national and regional e-business development projects. (www.verkkokaveri.fi)

Iceland

Since 1996, the Icelandic Government has pursued a national strategy for the development of e-business and e-administration. The objectives have been clear, and good results have been achieved during the process. In March 2004, the Government will present a new strategy for this field. In this new proposed strategy, which is based on the results achieved so far, the Government will attach importance to ensuring that the strat-

strategy results in improved competitiveness for enterprises, administrative savings and an increased service level for citizens. The preparation of this comprehensive strategy concerns the whole field, i.e. ranging right from a defined minimum number of PCs in schools and libraries to the fully digital service portal and business portal as well as commitment to designing one point of access to the public sector. The strategy will also include guidelines for e-learning, focus on increasing the use of digital signatures as well as a joint IT security policy at all levels. In close co-operation with trade organisations, other interest group organisations, etc., the Althing (the Icelandic Parliament) has drafted legislation and rules that are based on international conditions and has thus created a clear basis for preparation of a strategy and the implementation hereof.

Norway

Innovation Norway's *e-service* (formerly VerDI) offers services for small and medium-sized enterprises that want to improve their knowledge and have control of their investments in electronic business operations, be it e-commerce, logistics or other areas of their operations. Increased commitment to electronic business operations is one of the means for strengthening the competitiveness and profitability of Norwegian small and medium-sized enterprises. The e-service consists of:

- *the e-barometer* – a benchmarking tool, which enterprises can use to compare themselves with 4000 Nordic enterprises (is also used in Denmark)
- *Analysis model* for use in the enterprise
- *The e-strategy developer* is a simple tool for enterprises that wish to develop their own strategy. It is simple to use and produces tangible solutions and measures for realisation of the e-strategy
- *Words and concepts* are explained, and enterprises can gain inspiration by seeing what other enterprises have done. The actual tool for the strategy work is called the e-strategy developer.

More than 1300 Norwegian enterprises have used the e-service. (snd.no/e-tjenesten)

The main objective of the *BIT programme* under the auspices of Innovation Norway (Innovasjon Norge – formerly SND (the Norwegian Industrial and Regional Development Fund) is to contribute to improving the competitiveness and innovativeness of SMEs through more effective electronic business operations and IT solutions. Subobjectives are to develop and increase the use of solutions in electronic business operations and IT in trade and industry and to contribute to effective use of industry solutions and value chain solutions through processes of change and the development of competence.

The BIT programme has been in operation for many years, and it currently comprises 25 industries with 200 pilot enterprises and 2500 user enterprises. 30 software suppliers are involved in the solutions. The focus has been on the development of integrated industry solutions (ERP solutions) through co-operation between industries, enterprises and software suppliers. The programme is user-controlled, whereas Innovation Norway has been responsible for the development of models and quality assurance as well as follow-up and communication of experience. In recent years, the BIT programme has

developed into comprising e-business solutions at value chain level and tools for efficient use of ICT at corporate level.

In the spring of 2004, the Norwegian Ministry of Education and Research will present its “*Programme for Digital Competence 2004-2008*”. This plan focuses on “digital competence for all”. The objective is that, before 2008:

- all Norwegian educational institutions are to have access to infrastructure and services of high quality. This includes Internet connection with sufficient bandwidth,
- digital competence must be a central focus area in training and education at all levels,
- the Norwegian educational system must be among the best in the world regarding development and utilisation of ICT in teaching and learning,
- ICT must be an integrated means for innovation and quality development in Norwegian training and education.

The budget for 2004 is NOK 140 million.

Sweden

In March 2001, the Swedish Government decided to contribute SEK 30 million to NUTEK (the Swedish Business Development Agency) for the implementation of a national programme aimed at improving IT competence in small enterprises during the period 2001-2003. The objective of the programme, *IT.SME.se*, is to create opportunities for development and high competitiveness among small enterprises through the creation of awareness of the strategic benefits of IT.

The 80 projects that have been commenced under the IT.SME programme vary in size from regional projects that involve 2,000 entrepreneurs and business owners to small trade associations with 10 participants. The project activities are aimed at a total of 15,000 entrepreneurs and business owners. Most of the projects have now been concluded. The activities have been distributed on a wide range of projects in terms of geographical distribution, distribution on industries and types of activities. The focus of the projects has varied from electronic commerce, security and ASP services to industry-specific activities. Most enterprises have started up basic IT activities after having completed training under the programme. (www.nutek.se)

NUTEK has also been given the government assignment under *REG-IT*, a regional project that is aimed at enterprises located in areas prioritised by regional policy and with a budget of SEK 50 million in the period 2002–2004. The objective is to increase knowledge about modern information technology in order to provide inspiration and incentives for increased strategic use of IT by enterprises. REG-IT is also to provide enterprises with incentives for working together on these issues. The REG-IT programme has been rooted in and marketed at the relevant regions with good response.

Standardisation

Denmark

In Denmark, the Ministry for Science has gathered a group of central e-commerce players via its *XML Committee* with a view to implementing a joint standard for the most central e-commerce documents such as “order”, “invoice” and “credit note”. It has been agreed to base the joint standard on the international standard UBL. The development of version 1.0 of the UBL standard is nearing its completion. In Denmark, a decision has been made to use a Danish modified version of UBL version 0.7 until version 1.0 has been consolidated as a standard and until there is a business basis for upgrading to this standard in Denmark. A pilot project has also been performed under which the UBL standard has been implemented in the integration with public procurement systems at The Public Procurement Portal (see The State as a Model below).

Finland

The Advisory Committee on Information Management in Public Administration (JUHTA) is a body that has been set up with the objective of promoting co-operation on information management between central and local government authorities. The tasks of the advisory committee involve planning the co-operation on information management, preparing reports and studies and drawing up recommendations for public information management. (www.intermin.fi/juhta)

The Advisory Committee on Information Management in Public Administration coordinates the central and local government authorities' use of computer technology and the development of information management and electronic services, promotes the use of computer technology in public administration, prepares standards and guidelines in its area of competence and decides on the administrative principles in its area of competence.

A large part of the JUHTA recommendations concerns electronic communication. These are recommendations for message-based information services: web sites, e-mail use, search register for contact information, data products, metadata on web documents and forms on the Internet as well as a consumer-oriented register of services.

Recently published recommendations concern public sector facilities for sending and receiving electronic invoices to and from parties who are under an obligation to keep accounts. A general target set in the recommendations is that half the invoices sent and received in Finland are to be electronic in 2005. It is recommended that the public administration should have the facilities to receive or send electronic invoices in accordance with two message standards (Finvoice and eInvoice), but the advisory committee is of the opinion that a single standard would be more expedient in the long term. The advisory committee's recommendations have only been published in Finnish. In the recommendations, reference is made to *Tieke's Forum for Electronic Invoices*. Tieke (the Finnish Information Society Development Centre) keeps a list of enterprises (around 1000 at present) that are able to send or receive electronic invoices. Enterprises can register on the list free of charge. (www.tieke.fi)

Iceland

In Iceland, the standardisation development process has partly taken place by sectoral development. In Iceland, *IcePro*, with support from the Ministry of Industry, monitors the international work in the standardisation of e-commerce in order to safeguard Icelandic interests and define each requirement. IcePro communicates information about the international work to the national players. IcePro is currently preparing a comprehensive pilot project on electronic transmission of documents between the customs authorities and transport companies (shipping and air transport). The project will focus on the implementation of ebXML in some large enterprises based on the recommendations in the UN/CEFACT Business Collaboration Framework. The project will run on the basis of an open infrastructure concept and is expected to result in detailed testing of the implementation and use of ebXML in the transport industry with a view to an expansion of this to other enterprises and industries. (www.icepro.is)

Norway

On assignment from the Norwegian Ministry of Trade and Industry, *NorStella* monitors the international IT standardisation work in order to safeguard Norwegian interests and requirements and communicates information from the international work to national players. (www.norstella.no). NorStella and GEA (the Swedish Alliance for Electronic Business) collaborate on a joint Norwegian/Swedish project on the testing of the experience gained from implementations of ebXML in Norwegian and Swedish enterprises seen in the light of the recommendations in the UN/CEFACT Business Collaboration Framework. This work is also based on NorStella's Open Infrastructure concept as well as an implementation plan for use of ebXML in the transport industry. The results will be available in the summer of 2004.

The electronic marketplace for public procurement, *ehandel.no* (see also The State as a Model below), has been documented on the basis of NorStella's Open Infrastructure concept, among other concepts. The documentation has, for example, been used as one of several bases for an XML project under the auspices of the EU's IDA Programme and for the establishment of trading processes between buyers and sellers. (www.ehandel.no)

The work on simplification of processes and procedures is an area of commitment for the Norwegian Government. The Internet portal, *AltInn*, which was formally opened in December 2003, is a joint electronic reporting channel for the business sector for submission of returns and other statements to the Norwegian Directorate of Taxes, the Brønnøysund Registers and Statistics Norway. ebXML and WebServices form part of the basis used for the development of the AltInn project. (www.altinn.no)

Sweden

So far, most of the standardisation work in Sweden has been done on a sectoral basis. Above all, large industries handle their own standardisation. Some, such as Odette (automotive industry) and Rosettanet (electronics industry) and EAN (groceries trade) work at a European or global level. Work on the development of joint invoice standards has been commenced in Sweden.

In the public sector, continuous work is being done on the development of the industry standard *SFTI* (Single Face To Industry). This concerns both standards for EDI and simpler electronic invoicing. (See also The State as a Model below).

The Swedish State plans to establish a centre for method development of trading procedures in Gothenburg.

(See also the Swedish Agency for Administrative Development's assignments under the section The State as a Model).

The State as a Model/Public E-procurement

Denmark

In January 2002, *The Public Procurement Portal* (DOIP) was launched in Denmark as a central initiative aimed at stimulating public e-procurement. The idea behind the establishment of the procurement portal is to create a meeting place for public procurement officers and their suppliers and to make it easier for both parties to have an overview of supply, agreements and purchases and sales statistics. In addition, the portal will make it possible for all parties to integrate the enterprises' purchasing, sales and payment data with their underlying finance and accounts systems. This will allow the enterprises and the public authorities to achieve administrative savings, because time-consuming manual entries and checks can be reduced considerably. After a relatively slow start in 2002, the turnover at DOIP increased markedly in 2003, and the total turnover for 2003 amounted to approximately DKK 38 million. The Danish Agency for Governmental Management owns DOIP, whereas the private enterprise *gatetrade.net* runs the procurement portal. (www.doip.dk)

Finland

Through the *JulMa service*, enterprises receive information about public procurement in Finland and Sweden. In addition to procurement procedures, the service offers document models and information about procurement units and the procurements of the whole public sector. (www.ktm.fi/julma).

The *TYVI system* offers enterprises a uniform way of submitting returns and other information to the public authorities. It simplifies the submission of returns and other information and reduces the resources used for this. Enterprises, representatives and public authorities can file returns and other information through TYVI. The returns are received by the tax authorities, Statistics Finland, the customs authorities, pension funds and pension insurance companies. The returns are gathered and forwarded by operators. The Ministry of Finance is responsible for the co-ordination and development of the TYVI system. More than 50,000 enterprises currently use the system. (www.tyvi.org/tyvi.nsf)

Iceland

In response to wishes from the Icelandic business community, the Icelandic State undertook to be in charge of the establishment of an *electronic marketplace* in Iceland. The Ministry of Finance implemented a tendering procedure and entered into a four-year contract with the company ANZA in March 2002. ANZA is responsible for the opera-

tion and marketing of the electronic marketplace for the Icelandic State as a whole, and it performs this task in a partnership with IBX in Sweden.

The Icelandic State expects to save around 1% on annual government procurements by using electronic procurement. In order to achieve the projected cost reductions, the Ministry of Finance's plan is that all the Icelandic State's procurements in specific product categories are to be made electronically before the end of 2004.

The marketplace has been run in Iceland since June 2002. 27 government institutions and 25 suppliers currently trade via the marketplace. There are plans to increase the number of purchasing institutions to around 90 in 2004 and to increase tenfold the number of catalogue products.

With this project on the electronic marketplace, the Icelandic State and ANZA have become pioneers in electronic commerce in Iceland.

Norway

The marketplace *ehandel.no* is a central initiative for realising e-commerce in the public sector in Norway. The marketplace *ehandel.no* is today used for contract-based procurement of goods and services that form part of public corporations' service production and day-to-day operations. Following a tendering round, IBX was chosen as the marketplace operator. The marketplace *ehandel.no* has been in operation since June 2002.

25 players in the central and local government sectors have entered into contracts on taking the marketplace into use, and several players are now well under way with the implementation and use of the solution. As at April 2004, this means that around 3,400 public employees have received training in how to use the solution and that these users have access to an ever-increasing number of relevant product catalogues from their own contractual business suppliers. It has taken 12 to 18 months longer than expected to get to the current stage in the use of the marketplace. Even though there seems to be steady growth, there is focus on increasing the level of activities and increasing state participation. (www.ehandel.no)

Sweden

In July 2003, the Swedish Government entrusted the *Swedish Agency for Administrative Development* with the task of working to increase the use of public e-procurement. The total budget for this work is SEK 6.85 million for the period 2003–2006. The tasks under the assignment include an annual survey of the public use of e-commerce, proposal of changes for increased public e-procurement and strengthening the national and international work on the preparation of e-commerce standards. Consideration must be shown for small enterprises' opportunities of participating in public procurement, and co-operation should, where this is suitable, take place with the Swedish Association of Local Authorities. (www.statskontoret.se)

The industry standard *SFTI*, which is a standard for electronic commerce between the public sector and its suppliers of goods and services, is being developed continuously. It primarily concerns the process for suborders, but two reports have been prepared on electronic procurement, and the implementation of the new EU Directives on Public

Procurement is now being followed, as is the international work done in IDA and CEN/ISSS, among other organisations. A large number of municipalities and county councils have introduced electronic commerce. A survey done by the Swedish Association of Local Authorities in 2003 showed that approximately 75 of the 290 municipalities have introduced some form of electronic commerce. Approximately a further 50 municipalities have decided to introduce electronic commerce. Most of the municipalities place orders electronically and receive electronic invoices. Various commercial solutions are used, but the industry standard SFTI is the principal solution used. In the Swedish Association of Local Authorities and the Federation of Swedish County Councils, continuous work is being done to support the implementation of efficient electronic commerce in municipalities and county councils in the form of training, consultancy services, etc. (www.eh.svekom.se)