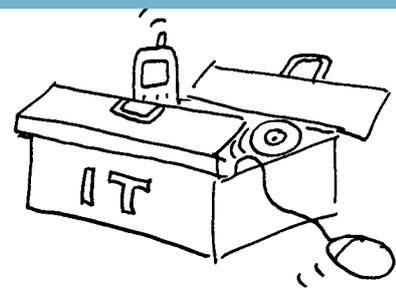
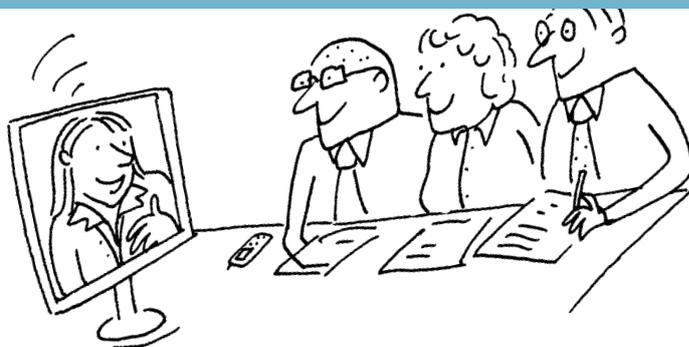




# eNorway 2009

– the digital leap



MINISTRY OF MODERNISATION

# Foreword

The goal of the Norwegian Government is to make daily life easier for the population as a whole, and ensure security for future prosperity and welfare. Information technology, applied in the right way, makes an important contribution to the achievement of these goals. Information technology has become an accepted and natural part of the daily lives of most of us. New products and services, and new forms of communication are being developed, and used, in ever more areas. Trust in, and familiarity with, the technology has become greater. At the same time, vulnerability and dependence on technology are also increasing.

Information technology has a great power to transform society. It affects more and more areas of society, from business development, through education and culture, to health and welfare. These developments have political consequences. They form the basis of, and create the need for, an ICT policy that crosses the borders of sectors and institutions.

- Calculations indicate that the value over the next three years of the European online content market will be tripled to 30 billion euro.
- German consumers download ring tones worth 360 million euro. The global market is 1.5 billion euro.
- The population of Japan and Korea spend more time online than in front of their televisions.
- Voice over IP, telephone calls routed through the Internet, is growing immensely. For example, Skype, one of the leading providers of Internet telephony, gets 150,000 new users each day.
- ICT makes up 40 percent of the productivity growth in Europe.

Norway wants to participate actively, ambitiously and with clear intentions, in these rapid, exciting developments.

The Norwegian Government intends to take the necessary steps to achieve the potentials that are inherent in the ICT and the knowledge society. Stronger coordination, identification of clear areas of investment and concrete, ambitious, while realistic, goals will create results that really make a difference.

I want to continue the good process of cooperation with representatives of government and local authority agencies, the private sector, interest groups and non-profit organisations. Without a strong and constructive commitment from different players, it would not have been possible to achieve the results that we have achieved in such a relatively short space of time. Nor would it have been realistic to set as concrete goals as we have done in eNorway 2009. One example is the setting of a common standard for electronic signatures, which is an important condition for the development of adequate digital services for the Norwegian people. I firmly believe that we will meet our challenges, fulfil our opportunities and work to achieve our goals together.

eNorway 2009 is all about how the Government will exploit and realise the opportunities. Norway is facing a demanding and exciting task. eNorway 2009 will allow us to really take the digital leap forward.

Oslo, June 2005,



Morten Andreas Meyer  
Minister of Modernisation

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# Introduction

The Government wishes to create a knowledge society, in which everyone can participate and which exploits the potential of information technology. Norway's advanced use of technology shall provide its population and businesses with an easier life and contribute to promoting value creation, thereby ensuring prosperity and welfare for future generations. Information technology shall support the advance of a public sector that provides the best possible services, based on the resources it has at its disposal. The needs of its population and its business and industry shall be at the heart of the development of the digital Norway.

Over the last decade, costs of public services have increased heavily. If the tasks of the public sector are not solved better than today, the growth in the workforce will not be great enough to carry out the tasks that follow from more and more old people needing nursing and care. ICT is a tool that can contribute to solving these challenges. Improved solutions will allow us to shuffle fewer papers and provide more care. Smart uses of technology will secure prosperity and welfare services for the future.

Business and industry also face significant challenges and opportunities. Internationalisation and financial integration demand that Norwegian companies have a great ability for change and innovation. Active exploitation of information technology is an important precondition for strengthening our competitive edge. This requires development of the knowledge and skills pool of society, and effective interaction between the public and private sectors.

eNorway 2009 shall support government policy for economic growth and increased value creation, prosperity and welfare development and change in the public sector. Excellent research communities, high digital skill levels in the population, already high level of ICT investment and well-developed ICT infrastructure, are all factors that make it possible for Norway to become a world-leading nation.

It would be natural to follow developments in the EU within ICT policy. One reason for this is because the framework for the regulations of the information society will be, to a great extent, the same in Norway and the EU because of the EEA agreement.

Norwegian ICT policy, and ICT policy action plans, have been developed over many years with strong links to European policy. On 1 June 2005, the EU Commission presented its new strategy

## **Phases in the development of the information society**

### **1) Establishment phase 1995–2005**

*Placing ICT on the political agenda, stimulating the spread of broadband, support software for development and knowledge-building, getting businesses and institutions online, establishing the expressions and language of ICT in the information society.*

### **2) Expansion phase 2000–2010**

*Getting ICT into all services, processes and decisions, ICT impacting on all parts of society through various platforms. Focusing on availability and inclusion.*

### **3) Change phase 2005–2015**

*Working broadly with organisational and technical change, using known methods and quantifiable goals, consolidation of e-services in fewer gateways. Major changes in the public sector, at the same time as the private sector adapts itself to new conditions in the information society.*

### **4) Realisation phase 2010–2020**

*The processes of the information society are exploited continually within the frameworks and guidelines that were established in earlier phases.*

Source: OECD

for ICT policy, i2010. EU refers to calculations in which ICT makes up around a quarter of EU growth in GNP and a significant 40 percent of productivity growth.

Development of the information society is best described using a maturity model. The OECD maturity model describes development that moves through different phases.

The first eNorway plan was presented in June 2000. The three first eNorway plans (eNorway 1.0, 2.0, 3.0) were principally a common description of actual initiatives in the individual ministries. ICT-initiatives that crossed the boundaries of ministries and sectors were given a common framework. The goal of eNorway 2005, which the Government presented in April 2002, was to lay out principles and to be a overall policy document document. Regular progress reports plotted the status of these ICT development initiatives.

eNorway 2009 is all about exploiting and realising the opportunities inherent in the technology. Initiatives and projects will contribute to triggering the gains for society that ICT can offer. Norway is now facing a demanding and exciting task. This is not just about technology, but also the way we communicate, work, learn and structure our public sector, and how creation of wealth is promoted and shaped in Norwegian society.

**eNorway 2009 has three target areas:**

- › **The individual in the digital Norway**
- › **Innovation and growth in business and industry**
- › **A coordinated and user-adapted public sector**



## Projects and initiatives

eNorway 2009 focuses on multi-disciplinary initiatives and projects. If we are to master the digital leap forward we must create contexts and opportunities for interaction across the various levels of administration, businesses and professional sectors and between the public and private sectors.

The Government sets clear goals and places priorities on initiatives that will lead to change. The Government will focus on how public sector and business can achieve gains from past, current, and future ICT initiatives. Benefits realisation must be considered in a economic perspective, but also as achievement of qualitative, social, cultural and democratic gains. Exploitation of digital opportunities in the public sector must liberate resources that can improve public services, provide increased participation in democratic processes and yield improved access to information.

If we are to proceed in digital development, the public sector must, in many areas, be regarded as one unit. Horizontal and vertical interaction across the sectors, and between levels of administration, must be ensured. An evaluation of earlier eNorway plans carried out by the consultants Rambøll Management in the autumn of 2004, points out that in certain areas there is a need for more centralised initiatives and stronger coordination, while in other areas there is a greater need for sharing knowledge and skills. Recommendations for stronger coordination are specially linked to such areas as technological standards, IT architecture and coordination of major national ICT projects. This is also in line with several OECD recommendations. The Government will follow up these recommendations.

## Monitoring and follow-up of eNorway 2009

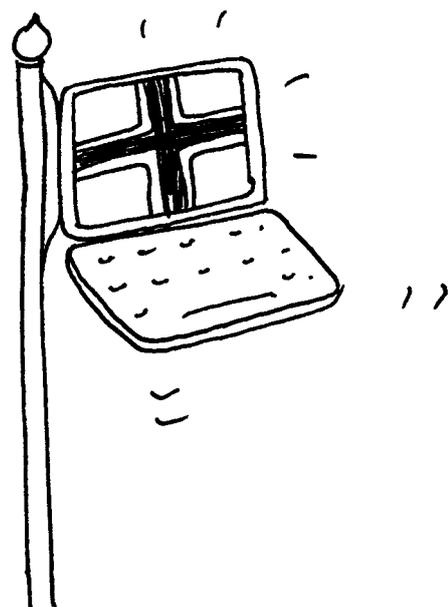
Concrete goals have been drawn up for each area in this plan. Progress reports will be made annually. The goals shall be followed up and provide basis for criticism, improvement and encouragement to renewed efforts. The results will be posted online. In all, this will provide a new knowledge base for the state of eNorway.

A clear division of roles and responsibilities is vital, if the goals of eNorway 2009 are to be achieved. The plan forms a mandatory umbrella for ICT policy initiatives at the government level,

while at the same time providing guidelines at local authority level. The Ministry of Modernisation will set an overall framework and support cross-ministry cooperation. Responsibility for realisation of the actual projects and initiatives encompasses the individual ministries and all sectors of business and at all levels of authority.

The Norwegian Association of Local and Regional Authorities, KS, is an important partner. KS is a member of the Ministry of Modernisation's eNorway-forum and of the coordination body for eAdministration. The activities of the local authority sector are important if we are to succeed in our ambition to make the public sector more efficient. For this reason, KS has been specially invited to participate in the preparation of eNorway 2009.

In the autumn of 2005, KS will draw up its own strategy document, rooted in the eNorway plan, and carry out initiatives to support the development of ICT in the municipalities.



# ***The individual in digital Norway***



*Everyone shall have the opportunity to participate in the information society. Digital services should be adapted to the needs of the individual!*



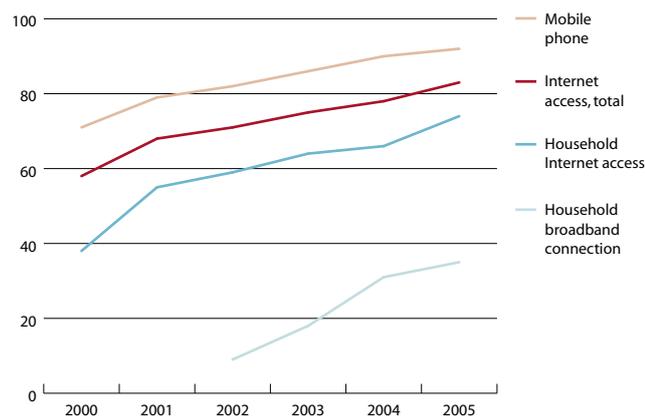
# 1. The individual in digital Norway

The Government wants everyone to have the opportunity of participating in the information society. Digital services must be adapted, focused on the needs of the individual.

To ensure participation in the digital knowledge society the Government intends to:

- › prepare for access to the Internet and digital services that are based on individual needs
- › ensure that services include all users and user groups
- › ensure that there are good digital skills throughout the population - within education, work and the community
- › prepare for good consumer and personal data protection
- › contribute to the development of a culture for information security
- › ensure access to online sources of knowledge and culture

Population access to ICT and the Internet  
Source: TNS Gallup, March 2005/Teleplan 2005



## Visions and opportunities

The Government wants an ICT and knowledge society for everyone. The general public shall have easy access to electronic services and information. Norway is well on its way to achieving such a goal. International statistics show that Norway is a world leader in its population's access to the Internet and online services. By April 2005, 83 percent of us – 3.2 million Norwegians

– had Internet access. Five years ago only one million Norwegians had such access.

Norwegians communicate to an ever increasing degree using e-mail and chat rooms, read online news, book flights and hotel accommodation, and manage their banking services electronically. Organisations, associations and clubs have their own websites, send newsletters electronically to their members and send information using SMS. Consumers are quick to take advantage of mobile phone services. This trend will continue with increasing pace and strength. New forms of communication will arrive.

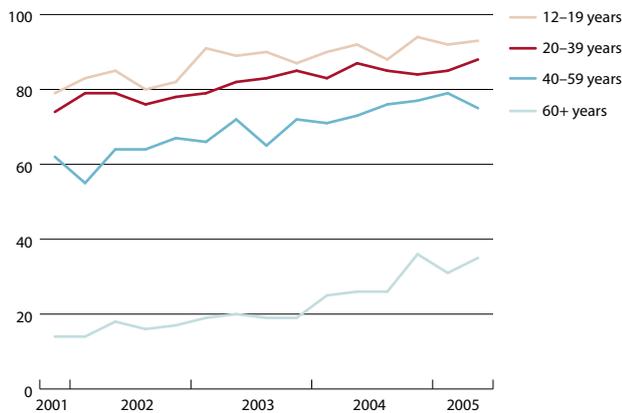
Even if many people have access to the technology, there are still significant differences in their use and skill levels. As more and more social areas are marked by, and presupposes use of ICT, the Government wants to ensure that all population groups receive guidance and training in the benefits of ICT. Increased investment in digital skills may form an important measure to prevent people being excluded from the labour market.

Libraries have an important role to play in offering access to, and use of, ICT. As a result of these developments they have, to a certain extent, changed character, changing from pure providers of literature to becoming providers of knowledge and information in many fields. Not least, libraries have been given a central role as gateways to PCs and the Internet for those of us who do not have them at home.

Young people have another skill set and better assumptions for deriving benefit from technology than their seniors. Active use of technology can contribute to increased commitment from more people and create new opportunities for participation. The Internet, for example, allows to comment upon, and receive, information about political decision processes and decisions at any time of the day. Central, regional and local political authorities all face challenges in the preparation of ICT tools for use in democratic processes by the general public.



Internet use by age  
Source: TNS Gallup, March 2005



## 1.1 Digital participation for everyone

It is important that electronic services and tools are adapted for general use. Digital divides shall be avoided.

When correctly applied, information technology improves living conditions for groups of the population who need adapted conditions, both in their private and working lives. The white paper to the Storting no. 40 (2002-2003) *Breaking down barriers for those with special needs*, states that those who have special needs shall be offered opportunities for personal development, participation and a way of life along the same lines as other members of society. Removal of barriers created by society, including those created by technology, is vital if this is to be achieved. The Government's action plan for increased accessibility for those with special needs, which was presented in November 2004, promotes actual initiatives to follow up in important social areas. Priority is placed on ICT.

Norway is a multicultural society and has minority groups with varying degrees of ability in the Norwegian language. Use of plain and good language is important if public information is to be understood by everyone.

The possibility of using own language characters in official registers, i.e. correctly spelt names and addresses, is important for full participation and sense of identity. The goal of the Government

is that all official registers should be able to use Sami characters and that such data should be able to be exchanged between the registers. The Government has already decided that government agencies must enable use of Sami characters when replacements are found for old ICT systems/registers. The citizens' gateway, MyPage, will be enabled for Sami versions in the future.

Public electronic services shall follow standards and international guidelines for accessibility. Official websites must adhere to the international WAI (Web Accessibility Initiative) guidelines. Norge.no carries out annual quality marking of official websites, where some of the criteria have been based on the international WAI requirements. The Norwegian Association of Local and Regional Authorities has developed a specification for municipal/regional authority websites that satisfies the WAI guidelines and which also can be used by other public sector activities. Through its public procurement, the Government will impose requirements to producers and suppliers concerning the universal design of ICT tools.

The authorities have publicised a licence for a digital terrestrial television network. Establishment of such a network will mean that the existing analogue network will be phased out in 5 to 10 years' time. Digital television may provide special needs groups, e.g. the blind and deaf, with easier access to new services. The licensing authorities will emphasise the way operators and broadcasters offer accessibility to digital transmissions for everyone.

The Government will continue the scheme on tax-free use of employers' computer equipment, and tax-free covering of costs involved with use of PCs at home and broadband for PC use.

## Goals



• By 2007, schemes shall be established that will ensure that all of those who do not have Internet access have the opportunity to access online services in their neighbourhood.

• By 2007, 80 percent of all official websites shall meet Norge.no's quality criteria regarding accessibility.



### **Norge.no**

*Norge.no is a government website that is responsible for guidance in making it easier to reach public services and public information. Users are provided with help to navigate, using an Internet gateway and a service which can be accessed by phone, e-mail, Internet chat rooms and SMS. Norge.no is also responsible for encouraging implementation of government information policy concerning accessibility and universal design of online public services. (norge.no)*

### **National Strategy for Security of Information**

*In its National Strategy for Information Security (June 2003) the Government set four overall goals for information security in the Norwegian society. The goals are:*

- *Critical infrastructures for the exchange of electronic information must be robust and secure in relation to the threats it is exposed to. Critical information systems must be protected so that the damage from breaches of security is no greater than what could be defined as an acceptable risk.*
- *A culture of security shall be built around use and development of information systems and electronic exchange of information in Norway. Information security shall be a central factor in consumers' and Norwegian businesses' use of ICT.*
- *Norway shall have a publicly accessible infrastructure for electronic signatures, authentication of communication partners, and secure transfer of sensitive information.*
- *Regulations regarding security of information shall be applied and developed in a coordinated, and for users, simple and clear manner, so that implementation of necessary measures takes place in the most efficient and adequate manner.*

## **1.2 Digital skills**

The need for digital skills is increasing and changing rapidly. This requires a steady focus on the individual's capacity for being able to keep up with developments. Digital skills include the ability to exploit the opportunities offered by ICT, and use them critically and innovatively in education and work. Digital skills also include the ability to be critical to sources and assess content. Use of digital tools is a skill the individual must acquire, maintain and continually develop, if he or she is to be a digitally skilled and critical citizen. This encompasses:

- › concretisation of what should be regarded as basic digital skills
- › regular surveys of the population's digital skills
- › spread of experience gained from ICT training for senior citizens
- › initiatives aimed at increasing ICT skills among job seekers

Many people develop digital skills through education and their work. But those of us who do not use ICT at work, or are outside work and education, face major challenges. There are currently around 700,000 people of working age who are wholly or partially outside the job system. Preparation for digital interaction between the general public and public services, e.g. in the new work and welfare agency, by mainly electronic communication between the agency and users, which is enabled so that everyone can participate in such communication, will contribute to enhancing the digital skills of a large group of people.

Many of those who fall outside the education system or the

labour market are, however, active users of the technology. Young people, for example, who cannot find work often do have skills in the use of mobile phones and PCs, despite their limited education. The authorities must base their efforts in the varying digital skills of the population when they are developing electronic services.

The greatest ongoing collaborative project between parties in the labour market and the authorities is the letter of intent concerning a more inclusive labour market. One of three sub-goals concerns using the resources and labour represented by the older part of the workforce in a better way, and raising the average age of retirement. Experience has shown that when ICT training focuses on the needs of the higher age group, their digital skills increase quickly and the risk of expulsion of older employees from the workforce decreases. Experience from this sort of project will be developed further, in a process of collaboration with the parties in the labour market.



The over 55 age group makes up more than 25 percent of the population. The over 55s are heavy users of public services, e.g. health and care services. At the same time, the group has low participation in the Internet community and many of them fall outside the digital training processes at work.

The Government will develop national goals for digital skills in teaching and learning. This will yield better knowledge about which skills the information society requires the individual to have, and provide more knowledge of the population's skills requirements and level. The necessary surveying will take place in cooperation with professional authorities and relevant research, employer and employee communities and from major interest groups.

The goal of the Government is for the Norwegian education system to be among the foremost in the world in educational use of ICT in teaching and learning. A holistic focus will be placed on ICT in education, spotlighting curricula and programmes, skills development for teachers and school heads, infrastructure and R&D. The Programme for digital skills 2004-2008, promotes a vision of digital skills for all. From 2006, the new curricula for primary and secondary schools place digital tools as one of the five basic skills that should be integrated in all subjects. Section 4A-1 of the Education Act gives the right to primary education for adults who, following an individual assessment, are regarded as being in need of such education, as long as they do not have the right to further education according to Section 3-1. Integration of the five basic skills, such as use of digital tools, will also be significant for adults' right to primary education. This is being

evaluated by the Ministry of Education and Research.

Currently, schools are taking the technology into use at very different rates. In order to stimulate better integration of ICT in teaching and learning, the Government will place priority on digital skill development for school heads and teachers, and digital teaching resources that are linked to practical use of ICT in education.

The programme for digital skills is important for the achievement of "Kunnskapsløftet" [Increasing Knowledge], the Government's reform of the entire primary and secondary education system. Education will play an important part in building awareness towards the use of Internet. Development of teaching resources must be directed at exploiting open standards, so that the market mechanisms for development of teaching aids are enabled to function as well as possible.

## Goals



- *Basic digital skills are important, both in order to prevent expulsion from the labour market and to make it easier to find new work. One stage in the development of the IA Agreement will involve government collaboration with the parties in the labour market concerning initiatives to prevent that lack of basic digital skills in job situations leads to early expulsion from the labour market. Development of digital skills will also be used by the labour and welfare administration as qualification measures in situations where lack of such skills prevents the priority groups in labour market policy from returning to the labour market.*

- *By 2008, digital skills shall be central to education and training, emphasising:*
  - *ICT as a teaching aid: pupils and students shall be able to use ICT in a safe, well-informed and creative way to develop the knowledge and skills that they will need as full participants in society.*
  - *Use of ICT in academic subjects: ICT shall be*

### **Programme for Digital skills**

*The Programme for digital skills (2004-2008) is the Government's main effort on ICT in education. A modern system of education places demands on infrastructure, skills development and digital teaching resources. The programme meets these requirements through central initiatives and projects. Learning Network is one example of a central initiative in which schools are invited to learn from each other and develop their own organisation in a process of collaboration.*





*integrated in all subjects through curricula and as part of the assessment system, where it is relevant.*  
 – *Digital skills: Methods and tools must be developed that assess and measure pupils' and students' digital skills, in order to ensure that pupils and students achieve satisfactory digital skill levels.*

### 1.3 Digital services for the general public

The Government will ensure that there is a broad and comprehensive range of digital public services. Development of digital public services shall be driven by the needs of the population and contribute to simplifying the interaction between the population and the public sector. Suitable services shall be available through several channels in addition to the Internet, e.g. mobile phones or digital television.

Public digital services are currently published on the websites of the individual agencies. The Government will, therefore, carry on this decentralised development dynamics with all the power at its disposal. In order to make daily life as easy as possible for the population, the Government will at the same time establish an online public service office, which features interactive services<sup>1</sup>. The online service office, MyPage, will offer services in a user-friendly manner that means that users no longer have to understand the way the public services are organised when they are looking for specific services. MyPage will offer the public individually-oriented information from public sources, the oppor-

tunity to access electronic services, as well as a communication channel which follows up, and keeps them updated on, applications, reports and decisions.

Use of MyPage as a channel of communication will provide individual members of the public with the opportunity to agree to receive information and decisions electronically. This will be an important step towards the completely digital interface with the public sector. People who want to, will be given the opportunity to only receive letters and other communications from the authorities electronically.

The Government wants all relevant government, municipal and regional services to be available digitally by 2009 at the latest. Incentives that encourage the use of digital services will be considered to promote their use. Examples may include later deadlines for submission of returns/reporting and more rapid responses/reduced case processing time if submissions are made electronically.

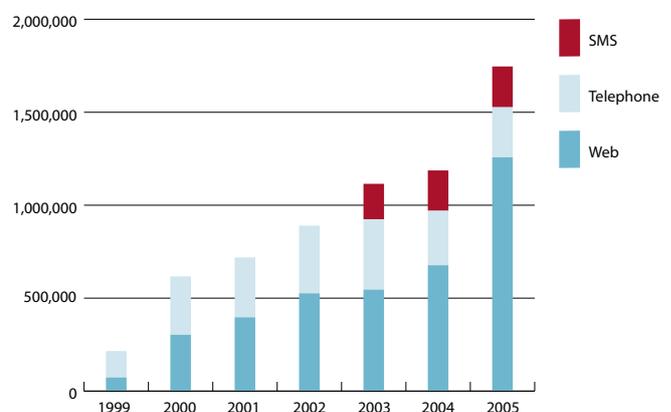
Modernisation of the administration using 24-hour online services requires security and data protection. If the general public is to be secure and feel safe using such services, a common solution for handling electronic IDs and electronic signatures, cf. chap. 3.1, is necessary. This will mean that Norwegians will only need one electronic ID for all online public services, removing all of

#### **MyPage, the citizens' gateway**

*MyPage will be an online electronic public service office, which allows the general public to access services electronically, based on a personal web page with secure logon. MyPage shall be a user-defined service in which relevant information about, and for, each individual inhabitant is available in one place. The service will be available by the end of 2005, as part of the website Norge.no. The scope of the service will be expanded on an ongoing basis. All relevant government, municipal and regional population services will be available through MyPage by 2009 at the latest.*

1.8 million Norwegians submitted tax forms electronically in 2005

Source: Directorate of Taxes



<sup>1</sup> By "interactive services" we mean two types of service. Firstly, those that are completely automatic, i.e. where the services are provided from IT systems where discretion and award criteria are defined within the system. Secondly, fully electronic services in which the entire case processing chain is electronic from beginning to end.

the disadvantages and irritation around multiple user names, passwords and password calculators, making life easier.

Development of digital services for the population shall build on open standards. Use of particular word processing systems, browsers and email software shall not be decisive for access to public services. Open standards are also discussed in section 3.2.

It is important that individual users trust the technology. Information technology is used in ever more areas, and we expect, to an ever greater degree, that the technology is user-friendly and that it works. In April 2005, the Norwegian Government launched nettvett.no, which is a website that contains information, advice and guidelines for safe Internet use. The information is directed at both private users and small and medium-sized businesses.

## Goals

- *By 2009, all relevant interactive services, which have the general public as their target group, shall be available through the citizen gateway, MyPage.*
- *All new interactive services, which have the general public as their target group, shall be developed so that they can be made available through the citizen gateway MyPage from the moment they are launched.*
- *The target groups' usage of electronic services shall be monitored closely. In the case of high volume services (e.g. tax, coordinated admission for higher education, etc.) at least 75 percent of the target group shall use the electronic services by 2009.*
- *By 2009, 80 percent of the users of public digital services shall be satisfied or very satisfied with the services.*

### 1.4 Digital rights

Development of the information society impacts upon, and challenges, important framework conditions, including personal data protection, intellectual property rights and consumer protection.

New technology shall be available for the most possible consumers. At the same time, consumer groups must not be prevented from using services on the basis of such obstacles as long lock-in times or special software.

In the field of intellectual property rights, the Government wishes to maintain a balanced relationship between consumer interests and the interests of rights holders. Developments within technology raise many new questions. They can be linked to the relationship between different playback media, the design and practical handling of technical protection systems (DRM systems) and the relationship between rights holders and suppliers of playback software. There is a need to follow developments in this area.

Concerns for simplicity and accessibility to information and services must be balanced against the demand for adequate case handling and consideration for data protection. The administration's regulations concerning case processing and confidentiality, as well as organisation of the administration's services in separated systems or "silos" have partly been based on principles of data protection and legal security. It is not certain that the traditional way of securing information systems, often physically separated from external systems, is the best way to ensure adequate personal data protection in the future. Simpler, and better, access to information from the government can also promote better data protection by contributing to increased consciousness, insight and control over the government collection, registration and use of information about ourselves.





The Personal Data Act, which is the general legislation governing electronic processing of personal data, is built around a EU directive that only allows for national variations to a limited extent. This does not still prevent stronger focus on use of data protection technologies<sup>2</sup>, traceability and post checking as a step in information security measures in the future. The Ministry of Justice will, as part of its evaluation of the Personal Data Act, which will begin in 2005, include assessment of whether, and if relevant how, the legislation can contribute to stimulating the development and use of such technology.

## Goals



- *By 2007, all citizens will be able to choose for themselves whether approaches from, and communication with, the authorities shall take place electronically.*
- *By 2009, a holistic review of the copyright legislation will take place. A natural part of this work would be to assess the application of the regulations concerning copying, dissemination and technical protection systems linked to digital content.*
- *By 2009, all public sector agencies shall have prepared the way for electronic retrieval of one's own personal data in an easy and secure way.*

### 1.5 Digital access to knowledge and culture

The cultural sector contains a rich range of cultural products in the form of films, museum collections, archives, radio, music and books. Even if a lot of this is already digitised and made available online over the last decade, there is still much that should be made more easily available. The basic view of the Government is that anything that is publicly financed should be available to the public. A plan will be drawn up showing what has been done thus far, as well as containing a strategy for further digital presentation of Nor-

wegian heritage, including films, literature, museum and archive collections, specialist sources of knowledge and national archives for audio and photography. Based on copyright agreements and personal data protection regulations, schemes will be drawn up that ease access and increase the range available to the public.

Large amounts of material from the archives of the Norwegian Broadcasting Corporation (NRK) are important parts of the Norwegian heritage. It is desirable for this wealth of archive material to be made available once again, and in new ways. A legislative bill (Ot.prp. no. 46 (2004-2005), *Changes in the Copyright Act*), has prepared the way for a simpler clearing of material from the Broadcasting Corporation's archives. Basis in law has been established for the broadcaster to be able to enter into agreements with representative rights organisations in the area. This will make it possible for NRK to make its archive material available and increase access to the general public.

New curricula will be introduced into primary and secondary education from the autumn of 2006. Digitalised cultural material will be an important teaching resource. The Government will, therefore, consider how a greater part of NRK archives, the Norwegian Film Institute, the National Library, museums, archives and equivalent institutions can be used in primary and secondary education.

#### **Norwegian Digital Library**

*The Norwegian Digital Library is a 5-year national initiative programme, under the aegis of the Norwegian Archive, Library and Museum Authority, which is working towards the establishment of a common digital library. Its vision is to provide easy access for all to information and knowledge. Its ambition is to coordinate existing services, as well as developing new services. In this way, the Norwegian Digital Library will make more quality-assured content available. Users will be given access to digital knowledge, culture and sources of experience, and services. (norskdigitaltbiiblotek.*

<sup>2</sup> I.e. systems that, for example provide better information to the individual about how personal information about that individual is collected, registered, connected and communicated.

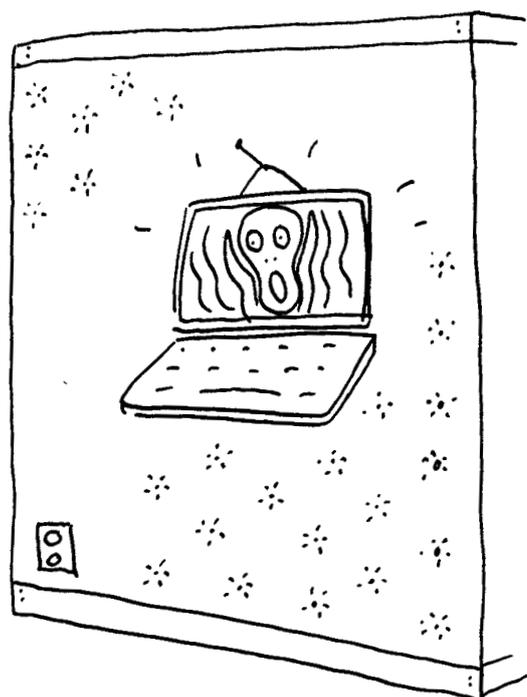
Publicly financed research and development, in common with culture, is a benefit in which the costs of sharing the results are low, compared with the costs of doing the job itself. There is an annual grant of around NOK 14 billion for research and development through the national budget. Experience shows that the research results become better known when they are published online. The Government will prepare the way for making the results of publicly financed research, financed through the Research Council of Norway, more easily available online. The Government will reinforce the ongoing development of open and free journals and publication archives on the Internet. During 2006, the Ministry of Education and Research will consider how Norwegian research results can be made more available.

## Goals

- *By 2007, a strategy shall be presented that prepares for schemes that provide access to heritage, including film, literature, museum and archive collections, professional literary sources of knowledge and national archives for sound and pictures. The strategy shall be drawn up on the basis of copyright agreements and personal data protection regulations.*
- *By 2009, schemes shall be established that ensure Internet access to cultural heritage and knowledge and experience sources for educational institutions and the general public.*

### **Kulturnett.no**

*Kulturnett.no has been created and financed by the Ministry of Culture in order to realise national cultural policy goals, including making the benefit of Norwegian cultural resources visible. Editorial responsibility is in the hands of the Norwegian Archive, Library and Museum Authority. Its goal is to provide knowledge and experience through digital culture and digital information about cultural resources to the general public. Kulturnett.no is a marketing body for Norwegian cultural institutions/artists and the communication of their activities.*



# ***Innovation and growth in Norwegian business and industry***



*The challenge is to be smarter  
and more innovative in our work!*

## 2. Innovation and growth in Norwegian business and industry

In order to maintain competitive edge and to safeguard a society of prosperity and welfare, Norway must increase its development and value creation from knowledge-based business. The public sector and large and small businesses must improve their exploitation of the opportunities created by information technology.

The Government will create good framework conditions for business by:

- › promoting value creation through innovation and change based on ICT
- › develop services that simplify further interaction between businesses and the authorities and reduce paperwork
- › ensure good and reasonable access to public sector information that can be used to create value increasing services
- › contribute to the development of advanced services through the authorities' role as a demanding customer
- › prepare for e-commerce to contribute to increased competitiveness
- › reduce costs by preparing the ground for efficient and effective competition
- › prepare for research in the ICT sector
- › carry out the tax reform. In line with trends in other countries, the Government will gradually phase out the innovation-hampering property tax

### Visions and opportunities

It is necessary to increase the ability to change and be innovative in the Norwegian economy and business. The Government will contribute to improving the ability to change and be innovative by ensuring good and predictable frameworks for business and industry. A future-oriented policy builds on the recognition that Norway's challenge is to innovate more and work smarter. This means that the capacity of business and industry to change must be promoted. At the same time, the public sector plays an important part in the innovative ability of business and industry.

ICT is a tool that can contribute to achieving these goals. Technology provides more rapid and better solutions for information exchange and the opportunity for more rational work processes and value-added services.

The competition legislation is one important means. Changes in technology, legal frameworks (liberalisation) and increased demand for digital services have led to the traditional borders between the ICT sector, the media sector and the telecommunication sector being erased and replaced by one integrated information and communication sector. This is often called convergence. Regulated and deregulated regimes meet and competition policy challenges occur because the players, who are involved in what previously had been separate markets, now may become dominating in a merged market. The Electronic Communication Act, which came into force in 2003, allows for a gradual transfer to a general competition legislation. There will still be a need for special provisions that regulate the communication sector.

Norwegian business and industry should experience the public sector administration as ordered and unbureaucratic, which will provide an international competitive edge. It is important that less time is spent reporting to the authorities and more time is spent creating value. The Government wants Norway to be a leader in the provision of adequate public electronic services to business and industry. In its work on *A simpler Norway*, the Government has set the goal that business and industry's administrative costs, for adhering to the regulations, shall be reduced by 25 percent by the end of 2012. The Government thinks that intense efforts in this area are both necessary and possible.

Public authorities possess huge amounts of information, which may form the basis for new value-added services and value creation if conditions for further use are in place. This is also the background for an EU directive on further use of government data. This directive will be implemented in Norwegian law during 2005. The Government has also proposed that Norway shall participate in the long-term EU programme eContentplus (2005–2008).

## 2.1 Value creation, innovation and restructuring

Business adapts to, and continually takes into use, new technology in various areas. Several industries are very large users of ICT. Heavy service providers, such as retailers, banks and travel are going through major changes in a digitalisation process in which Norway is at the forefront, globally. Norway also has a dynamic information sector that acts as a provider to the rest of business and industry.

Several surveys point out that skill challenges are an important cause of lack of change in Norwegian small and medium-sized businesses. The BIT programme, managed by Innovation Norway, is one example of a programme that has a goal of increasing value creation in SMEs, both in and outside the central regions of the country, through efficient use of ICT. This programme will be developed further.

Digital skills are a central contributory factor in business and industry that focuses on innovation. Over the last years, recruitment of students to ICT subjects has been declining. The Government's strategy for strengthening science subjects (2002-2007) shall, among other things, increase skills and motivation in sciences among students, teachers, employees and the general public.

Industrial and public research and development contracts (IRD/PRD) provide technology companies with increased opportunities. ICT-related products and services make up a significant amount of the total contract volume. An IRD contract is an agreement that commits two companies to develop a new product, process or service. PRD contracts involve a targeted collaboration that commits a private company and a public agency. Active use of the PRD schemes allows public agencies to contribute to building up the product range and technical expertise of Norwegian companies, making them more competitive.

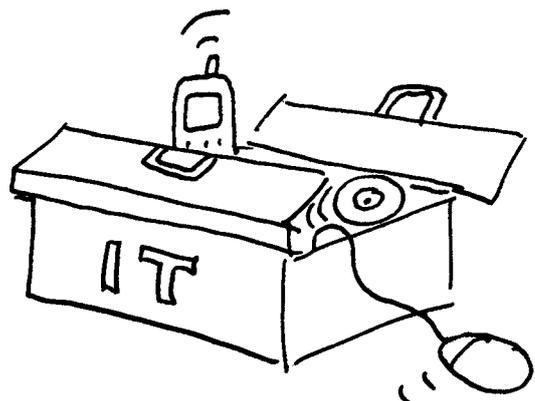
The Government's broadband policy is based on supply and demand. Market players decide the expansion rate of the broadband network. The technological developments within all types of communication technology have resulted in steadily falling prices for network equipment, which also makes it profitable to roll out broadband to areas of the country that were previ-

ously not regarded as being profitable for development. This is illustrated by the fact that the actual development from the introduction of broadband until today has exceeded all forecasts. Current estimates show that around 90 percent of the population of Norway will have a market-based broadband option during 2005. In March 2005, only 10 Norwegian municipalities were completely without broadband. At least 8 of these have plans for the establishment of broadband. Norway is also well-placed for actual connection to broadband. In March 2005, 35 percent of Norwegian households were connected to broadband. This means that the broadband policy has been a success.

One important characteristic of the broadband development is taking place by the energy companies. This development increases broadband coverage and capacity and also greatly increases the prospects of future infrastructure competition. There have also been rapid developments in the growth of wireless broadband technologies. These technologies are suitable for sparsely populated areas. There may still be, however, small local communities where the total demand is too small for the market to invest in the infrastructure for provision of new services. The Government will contribute through Høykom, and other schemes, to provide everyone with broadband, independent of where they live. By the end of 2007, a market-based broadband network shall be established throughout Norway.

### Goals

*• By 2009, all industries and companies that benefit from skills initiatives that exploit the innovation potential in electronic business operations, shall have the option to do this.*



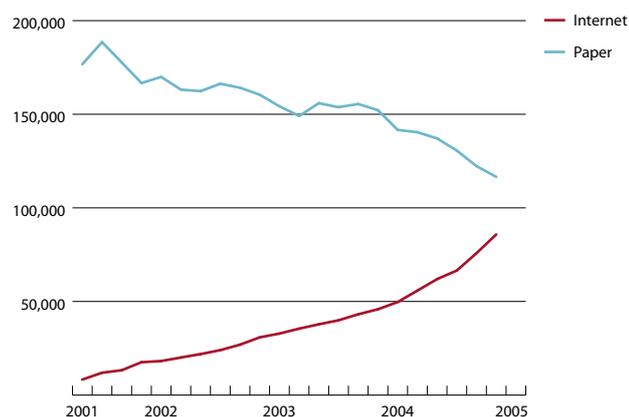
## 2.2 Digital services adapted to the needs of business and industry

The Government wants Norway to be an international leader in offering public electronic services. This will contribute to simplifying companies' daily tasks and release resources, which can be used to value creation in businesses.

Business and industry will have a common gateway for all electronic services from the public sector. The gateway will be based on the current Altinn. Altinn will be developed as a tool for achieving the goals for electronic communication between the public sector and businesses, and provide efficiency-promoting and coordination benefits for both the public and private sectors. The goal of an overall strategy for work on electronic services aimed at business is to ensure coordinated services, reduce paperwork and achieve a development that is in tune with the companies' desires and needs.

All businesses who so wish, shall be able to receive responses to applications, decisions, etc. through an electronic "mailbox" in Altinn. Public electronic services shall be adapted to the needs of the individual companies, including integration with the companies' own systems. By 2008, all official forms shall be available electronically through a common user interface. In 2008, information that meets businesses' needs for knowledge

Number of VAT reports submitted on paper and by electronic means  
Source: Directorate of Taxes



### Altinn

Altinn ([www.altinn.no](http://www.altinn.no)) shall provide businesses with:

- one gateway to all public services
- one gateway to public information about obligations and rights that apply to the individual company
- one place to complete and submit all mandatory official forms
- user-friendly, adequate electronic services
- access to services without previous knowledge of how government services are organised
- access to information about them that is registered in official registers
- mailboxes and archives for all communication with government services
- reminders about important deadlines

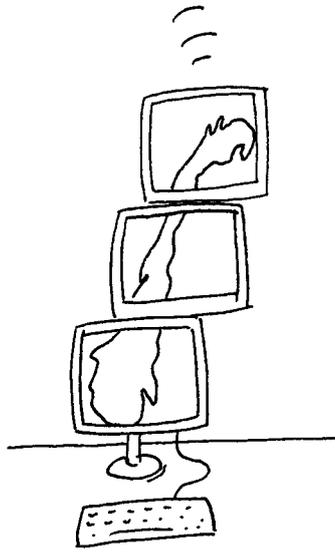
of official schemes, regulations, etc. shall allow for simple search and retrieval online. The information shall be coordinated so that it is easy for companies to find updated and quality-assured information.

## Goals



- By 2008, all relevant interactive services for businesses shall be available through the service gateway, Altinn.
- By 2008, 75 percent of all submissions of the 15 most used official forms shall take place electronically. During 2008, at least 30 percent of the target group for other available electronic services shall use the electronic form of communication.
- By 2008, 70 percent of businesses should be satisfied or very satisfied with the public digital services.





## 2.3 Increasing value creation based on re-use of public sector information

The European content industry is worth around 430 billion euro, around 5 percent of EU's GNP<sup>3</sup>. It is estimated that 12–25 percent of this data comes from the public sector. USA has passed legislation that largely permits both access to, and re-use of, public sector information. The result has been new companies, increased value creation and new jobs.

The Government wants to make it easier and cheaper for Norwegian companies to access information collected by public agencies. In 2008, preparations shall have been made for re-use and value creation based on public sector information within all sectors, with a holistic and clear pricing policy. By the end of 2005, the Government will put forward new guidelines for when and how the public sector should be paid for offering public sector "data", whether it is culture, research, cartographic data or meteorological information. The Government will also prepare the way for real competition by distinguishing clearly between when the public sector acts as producer and editor of data, and when it is acting as a business. The Government will ensure that the general public and businesses are granted access to far more free information than at present. The main principle shall be that public sector information that is publicly financed will be offered free of charge.

Cartographic data and geographic information play an important part, in planning society and for value creation and development of new services. This is an area in which Norway is far ahead, internationally. The information has largely been transferred in a digital form, but is not always available for all, or easy to find. There are significant opportunities for businesses to create value by developing services on the basis of geographical information. Even if Norway is at the forefront internationally in the electronic processing of maps and geodata, more geographic information shall be given to more users in new ways.

A public sector collaboration concerning geographic information, called Digital Norway, has begun. The Government wants all public bodies with responsibility for geodata, or which are major users, to collaborate in the establishment, operation and maintenance of a common national infrastructure. The data must be clearly and easily available. Agreements for the establishment and operation of Digital Norway will be established during 2005. There are already comprehensive data series ready for use in the collaboration. One important stage in the work is to put in place new businesses that use geographic information and which learn to connect their own data to maps and others' data. The Mapping Authority coordinates the work, while the state-owned company, Norsk Eiendomsinformasjon, is responsible for distributing data from Digital Norway to commercial players.

### **Digital Norway – geographic information online**

*The public sector has entered into a comprehensive cooperation around geographic data that is called Digital Norway. Digital Norway was established in 2005, coordinated by the Norwegian Mapping Authority, and it is preparing coordination of all geographic information that is established by public and private sources. A significant amount of public sector information is currently offered through this cooperation. Electronic charts covering the entire Norwegian coast will be available from the first half of 2008. Comprehensive establishment of basic data for mainland Norway is in progress, and very much of it will be in place before 2010.*

*There are significant opportunities for businesses to create value by developing services on the basis of geodata. (statkart.no, eiendomsinfo.no)*

## Goals



- *By 2008, a holistic policy shall be implemented that ensures efficient re-use of public data to increase value creation and development of new services, based on a no cost principle.*
- *Evaluation/reporting of the re-use directive's impact on value creation and consequences for official bodies shall be carried out by 2007.*
- *Sole rights' agreements for use of official data, which conflict with the EU directive concerning re-use of public sector information, shall be reviewed and changed by 2007.*

<sup>3</sup> Pira, 2000



• *Government agencies with responsibility for geodata and most municipalities shall join Digital Norway and update their data by 2005.*

• *Modern electronic marine charts, covering the entire Norwegian coast, shall be presented by 2008.*

## 2.4 Electronic purchasing contributes to increasing competitive edge

According to Norway Statistics, the public sector purchases products and services for more than NOK 240 billion each year. This includes its own business activities. If business activities are left out, the figure amounts to around NOK 190 billion, of which NOK 110 billion is product requirements or purchases related to daily operations. Operations-related purchasing is especially suitable for electronic procurement. Both public sector clients and suppliers can release large amounts to use on other tasks through electronic coordination, including:

- › improved procurement management and supplier follow-up, which lead to better deals
- › increased loyalty to framework agreements that yield direct and quantifiable savings
- › increased quality throughout the procurement process, giving better use of resources
- › more efficient and simpler routines, reducing the need for administration
- › fewer errors, which also reduces costs

In all, this will contribute to increased competition and reduced costs for the public sector, and professional and demanding public sector customers will contribute to strengthening competitive ability for businesses.

The Government wants the public sector to organise and carry out its procurement in such a way that it exploits the opportunities inherent in use of electronic procurement and electronic billing. It is important to achieve change that can yield rapid economic gains. Doffin.no and ehandel.no are examples of important electronic services where businesses can meet public sector purchasers. There is still a need for targeted initiatives to get the public sector to use decentralised electronic procurement to a greater extent than at present. New procurement regulations,

expanded functionality for the electronic services and introduction of electronic signatures, will lead to simpler and qualitatively better procurement processes, with greater opportunities for all suppliers to compete for public sector contracts. A potential change to solely electronic invoicing to/from the public sector will also yield significant economic gains, partly through reduced transaction costs at all stages.

The Government is now preparing an action plan to promote increased use of electronic procurement, which will contain initiatives for skills development in public and private businesses, organisational change, and introduction and use of new routines, work methods and electronic support systems.

## Goals

• *By 2007, all public agencies shall have goals, strategies and plans for their procurement that include use of electronic processes.*

• *By 2009, 25 percent of the volume of public sector operational procurement shall be wholly or partly achieved through competition based on electronic processes for coordination with businesses.*

## 2.5 The will to research

The Government wants Norway to be a nation in the forefront internationally in the use of new technology, skills and knowledge. Priority is placed on ICT in Norwegian research policy. We have preconditions to become a leading research nation. Comprehensive investment is required to focus on information technology as a separate specialist field, which also takes into account the great significance of ICT within other specialist and technological sectors.

Research and development are carried out in a number of arenas. Universities and colleges have a special responsibility for basic research. New technology and new ideas with business potentials are developed to an increasing degree directly from such basis research communities. The research institutes have a greater

### **VERDIKT**

*The Norwegian Research Council has created VERDIKT (Kjernekompetanse og Verdiskaping i IKT [Core skills and value creation in ICT]) as one of seven major programmes. Fund applications were invited for the first time in the spring of 2005. The programme focuses on Norwegian ICT research becoming a leader in the development of knowledge for innovation and interaction in an ICT-based wireless network community. Knowledge must be exploited to increase value creation and quality of life. At its start, the programme, including ongoing projects, will exceed NOK 120 million each year. This is equivalent to around half of the Research Council's ICT funding.*

responsibility for applied research and the link between the more academically oriented knowledge and businesses communities. Much research and development takes place under the aegis of business itself. This applies especially within the ICT sector, because it has a significantly greater degree of privately financed research than is the case for other research in Norway.

The Government will stimulate companies to increase their research and cooperate more in research projects than they would have done if the companies only took profitability into account. This is because the socio-economic profitability of investment in research and development will often be greater than the business profitability. The white paper to the Storting no. 20 (2004-2005) *The will to research*, outlines several schemes which may contribute to this. The Government wants to establish the Centre for Research-driven Innovation. Regional innovation centres will be established that will strengthen and develop regional company and knowledge communities with international focus and potential. The centres will stimulate networks and skills in a committed collaboration between regional research institutions, business and the authorities, based on the regions' preconditions and needs. The Norwegian Research Council will establish seven major programmes, including VERDIKT – *Core skills and value creation in ICT*.

The Research Council is also in the process of reviewing its innovation-oriented initiatives in order to contribute to improved

interaction between the research institutions and business and industry. ICT-oriented businesses have made great use of the "Skattefunn" scheme, which provides tax deductions for research and development.

It is necessary for both businesses and the research institutions to collaborate internationally in order to share risks and costs of major research investments. It is also important to be able to retrieve results of research in other countries. Significant research funding is channelled through the EU. The EU makes up a very important arena for testing and improving the quality of research communities, as the results are published in competition with other European research communities. The EU will adopt a new framework programme for the 2007-2013 period. The framework programme largely carries on earlier framework programmes, both for professional content and forms of collaboration. ICT will also be one of the central thematic areas in EU research investment in the future.

## **Goals**

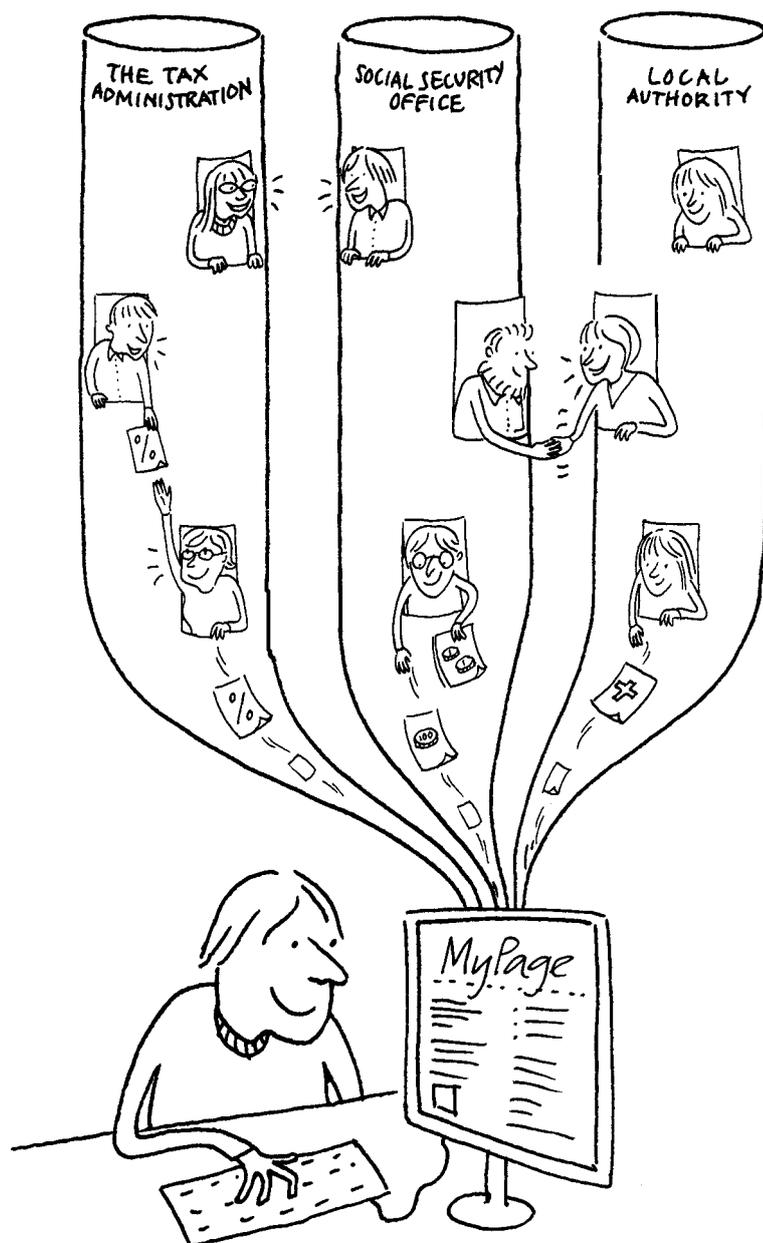


- *By 2010, total investment in research shall increase to 3 percent of GNP, 1 percent of which shall come from public sources. In order to raise Norway to a leading research nation has the Government in its Research White Paper proposed to increase the total research investment.*
- *The focus of the large VERDIKT programme on the wireless society requires priority on the following main areas:*
  - *User interfaces, administration of information and software technology*
  - *Communication technology and infrastructure*
  - *Security, data protection and vulnerability*
  - *Social, economic and cultural challenges*
- *In the period leading up to 2009, the Norwegian share of ICT-related EU projects shall increase to, and preferably exceed, the size of the Norwegian financial contribution.*

<sup>4</sup> Proposition to the Storting no. 20 (2004-2005) *The will to research*.



# ***A coordinated and user-adapted public sector***



*No-one should be in doubt as to whom the public sector shall serve!*

### 3. A coordinated and user-adapted public sector

The Government has two overall goals in its modernisation process: Making the general public's interaction with the authorities easier and liberating resources that can strengthen the welfare state. ICT is a powerful tool that can contribute to achieving these goals.

Over the last fifteen years, the public sector has digitalised registers, work processes and services. This has given Norway several world-class applications. Examples of these include the electronic self-assessment tax returns and coordinated admission for higher education. Strategic and coordinated investment in IT policy will exploit the potential gains in the public sector even better.

The most important challenges faced by the public sector are:

- › creating an easier daily life for the general public and companies
- › improved digital coordination between public sector agencies across levels of administration
- › increased user adaptation, standardisation and coordination
- › increased skills among leaders in the public sector and employees concerning the opportunities technology offers for better services and changes to work processes
- › gains achievement linked to use of ICT

#### Visions and opportunities

Information technology opens up for new opportunities for a holistic presentation of a range of public services, across businesses, sectors and levels of administration. The Internet is an important channel for meeting the needs of the population who expect easier access to public services and who are motivated for self-service. Knowledge of how the public sector is organised need not be necessary for easier access to the services we want and have the right to.

One of the main challenges, both for the state and the local government sector, is to reach all the way out to users with the offer of electronic services, as we can see has happened in the private sector with banking services, purchase of flights and other electronic commerce. User figures for both the electronic self assessment tax return and Altinn show that users expect and use, electronic services.



Another main challenge is linked to the development of efficient coordination between state agencies. Several studies, including two different national surveys from OECD, show that Norway must develop a more committed coordination between public sector

#### **The Høykom programme**

*The goal of the Government's Høykom programme is to increase skills in the use of and the amount of use of broadband-based services, in order to stimulate to increased use and demand for broadband services. This means more innovation in the public sector and an increase in efficiency and modernisation of public sector administration and provision of services. The programme has contributed strongly to agencies within the school sector, health and social services sector and other local authority administration, taking into use broadband and developing new and improved services for patients, students, businesses and the general public. The Høykom programme will continue for a further three years from 2005. (hoykom.no)*

players. This applies to common access to services, data exchange, uniform registers, common terminology and technical platforms, which make it possible for systems to “talk together”

The Government’s goal for the processes of change is to result in the public sector adapting to and exploiting the use of technology over the next ten years. At the same time, the quality of the service will be improved through electronic administration as the main interface with the population and businesses. If this is to be achieved, we must place demands on the public sector, including increased coordination between the various agencies. This potential can certainly be seen in the health sector, where each patient is dependent upon the players in the sector cooperating closely across the agency boundaries and levels of administration, forming a linked chain of treatment.

The Government will prepare the way for interactive services and increased electronic dialogue within the online service production. One important principle is that all public interactive digital services aiming at the general public, shall be offered through the citizens’ gateway MyPage (cf. chapter 1.3). When an agency develops its digital services for the population, and offers these services on its website, the services must also be adapted to, and made available through, MyPage. Digital services from the public sector to business and industry will be found at the portal Altinn (cf. chapter 2.2).

### 3.1 Digital interaction in the public sector

IT architecture is the common expression that is used for the principles and frameworks for electronic communication. The concept covers how work processes are organised, common terminology and technical interfaces and systems for processing and transmitting data. A well-functioning IT architecture is a precondition for coordination between major public registers. It is also a precondition for the public sector being able to deliver improved digital services.

The work on the architecture generally focuses on coordination, especially between agencies, national and international, but also between IT systems in the individual agency. Work on architecture shall contribute to:

#### **Coordinating body for eAdministration**

*The coordinating body established in December 2004, is a consultative body sorted under the Ministry of Modernisation. It consists of leaders from 14 government agencies, as well as 2 representatives from the local authority sector and is led by the Minister of Modernisation. At the overall level, the work shall ensure electronic coordination within and with the public sector, in order to contribute to more and improved user-oriented services, knowledge and business development and better use of public resources.*

- › better and more coordinated digital services for the population and businesses, across sectors and levels of administration
- › better quality and exploitation of common basic data for administration and businesses
- › cost-efficiency in the public sector
- › greater competition and diversity in the supplier market

Ensuring the necessary flexibility in public sector’s IT-systems is a challenge, at the same time as the IT architecture must remain sturdy over a period of time. The feasibility study, *Architecture for electronic communication in the public sector*, published in June 2004, marked the start of a long-term process in line with the above goals. Development of user-oriented services shall primarily take place through a service-oriented architecture. This means that the ICT solutions are delivered in independent modules, which can be used across departments and organisations. Each module gives a clearly defined set of services to the system as a whole.

Efficient interaction between the public registers is decisive for coordination of the user services. If this is to be achieved, efforts must be made in many fields, including common terminology, openness between technical platforms and systematic protection of personal data.

The coordination of the Norwegian Public Employment Service, the National Insurance Service and the municipal social services into a new work and welfare administration will be one important task in the next few years. The challenges are especially great

### **S@mspill 2007**

*S@mspill 2007 is the national strategy for ICT development in the health and social affairs sector. Its vision is for patients' interaction with the services to be experienced as uniform, whatever the level. The strategy includes a "local authority programme" in which six municipal "lighthouse-projects" will be followed for three years. The projects shall contribute to a coordinated development of electronic communication between the local authority health and social services and the specialist health services. The projects must have a stimulating effect by making opportunities visible and documenting gains.*

when building a good interaction between the Government and local authority ICT applications.

The Government will actively employ ICT to create improvements for patients and those needing care. It will also form the basis for more efficient resource use. The national strategy for ICT development in the health and social affairs sector, S@mspill 2007, aims to extend the use of Norsk helsenett and to connect several more users to the network.

Electronic ID and electronic signatures are necessary preconditions for increased use of electronic services, which require the communicating parties to identify each other, link to the content of the communication in a way that is traceable, or which needs confidentiality protection. A market for such PKI solutions has grown up in Norway. At the moment, the market is immature, since there are too few users who currently have an eID, and there are too few electronic services where such eIDs can be used. In the mean time, both public and private sector providers of electronic services are solving their security requirements with many different security solutions. The result is an unmanageable mass of IDs, passwords etc. for the users.

Use of standardised electronic signatures paves the way for digitisation of many public services. Users will be able to use the same eID for many different services. This will simplify and increase efficiency of a citizen's interaction with the public sector.

The Brønnøysund Register Centre will conclude and manage, on behalf of the government and the Norwegian Association of Local Authorities (KS), a framework agreement concerning use

of services from a common security gateway for the public sector. The objective of the security gateway is to make it easy for government agencies that wish to offer digital services to solve the identification and signature problem for businesses and the general public. Users shall be able to use their eID for access to public electronic services. The gateway will be provided by a commercial service provider, and it will integrate eID and e-signature applications that are available in the marketplace. These applications need to be approved for use in communication with and within the public sector. The PKI-suppliers in the market will ensure rollout of eIDs and e-signatures to users.



Use of the security gateway is mandatory for government agencies and will be recommended for municipalities. By the end of 2006, schemes will be launched that contribute to government agencies employing the services of the security gateway and integrating these in digital services. Government-backed enrollment schemes that support the market providers' distribution of eIDs to the general public and businesses will be set up.

Electronic signatures for organisations provide new opportunities to switch to electronic communication, both internally in the public sector, and between companies who wish to engage in secure online communication. An organisational signature can be used by those authorised to do so for most electronic communication and document exchange between companies. Organisational signatures eliminate the need for all civil servants to have personal signatures. Access to agency signatures will make it possible to move over to "paperless" public administration over the next two years. This requires, however, speedier adoption of electronic archives and case handling systems. The

suppliers of such systems shall also offer the necessary integration of eID and agency signatures. A central framework agreement concerning agency signatures and employee signatures will make it possible to integrate easily and efficiently such solutions in public sector case handling systems.

## Goals

- *In the period up to 2009, the Government will prepare ground for digital interaction in the public sector so that*
  - *all non-sensitive, formal communication between public sector agencies shall mainly take place electronically. As a first step, the ministries shall implement this at the latest during 2007*
  - *all government agencies shall have introduced electronically supported case handling and taken the initiative for the establishment of electronic archives*
  - *all public sector agencies have taken into use eID and electronic signature for all relevant services*

### 3.2 Use of open ICT standards and open source applications

All applications must be compatible if we are to achieve user-focused services online, or through other electronic channels. Standardisation, especially in the fields of communication and data exchange, is important for increased electronic communication. Public sector agencies shall apply open standards in their ICT and information systems. Non-adherence to this must be well-founded. Where there is a need to set cross-agency standards for all or parts of the government administration, so-called administration standards, they shall be based on open standards. Administration standards shall be established among other things for exchange and presentation of text documents. The standards must contain requirements to character sets that cover the official languages in Norway, Norwegian and Sami.

More consideration must be made of how use of administration standards shall be promoted through regulations, guidelines or in some other ways. The concepts used and content structure must be defined for common information in the public sector.

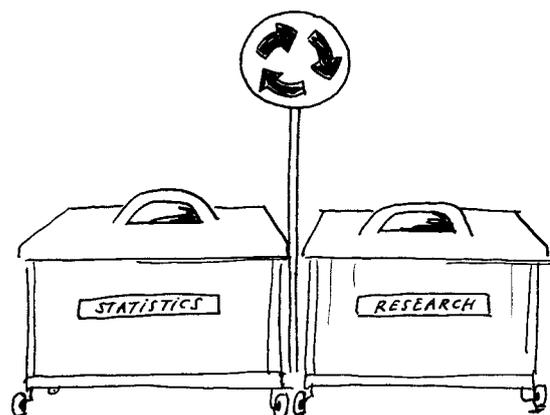
Maintenance of recommendations in this area will be important in coordinated ICT architecture and standardisation work. There is a

need for a specialist community, which can develop and maintain recommendations and administration standards. The specialist community must cooperate closely with official standardisation bodies like Standard Norway, and with other standardisation communities in Norway. By the end of 2005, a decision must have been made about how the work on administration standards in the public sector should be organised.

Initiatives should be undertaken to develop open source skills in the public sector. A recommendation concerning use of open source software in the public sector will be developed in 2005. By the end of 2006, all public sector agencies shall have drawn up plans for use of open source applications.

## Goals

- *By 2009, all new ICT and information systems in the public sector shall use open standards.*
- *By 2006, a set of administration standards for data and document exchange shall have been established.*
- *By 2006, all public sector agencies shall have incorporated how they are going to use open standards, service-oriented architecture and open source applications in the relevant planning documents.*
- *By 2008, data and document exchange in the public sector shall satisfy administration standards.*
- *By 2008, all official forms shall be available electronically and built round a common user interface.*



### 3.3 Ensure benefits realisation and new ways of working

The goal of digitalisation and modernisation of the public sector is to provide improved services to the general public and businesses. The gains may be both of a quantitative and a qualitative nature. They are often linked to the development of new and improved services e.g. through shorter case handling time, fewer errors related to case handling, increased user satisfaction and increased motivation for employees where the digitisation projects have been implemented. Experience shows, that the largest gains seldom result from the digitisation in itself, but as a result of the organisational changes and the process of change that are made possible by digitisation.

Leaders in the public sector must set an example and ensure that the agencies exploit all opportunities present. Digital management shall become an integrated part of management roles in the public sector. It is decisive that both upper management as well as other managers focus their efforts on exploiting digitising in strategic business management. For this reason, the agencies must draw up actual strategies for how employees will be enabled to exploit their digital tools. Not least, managers and their subordinates shall possess the necessary skills. This applies both for newly engaged managers and for those who are currently managers.

Many of the prerequisites for harvesting gains from ICT investment in Norway are already in place. There is still, however, a general requirement for reinforced focus on results and gains in public sector ICT projects. At present, there are no special requirements for government agencies to report expected gains and losses. The Government will improve control of resource use in the projects and ensure that the expected gains will actually be achieved.

The Government will develop methods and tools for goal-oriented benefits realisation in government agencies. Sound socio-economic analyses shall form the basis before major ICT projects are commenced, and projects that have commenced must be evaluated, based on precise indicators and stable and predictable systems for regular reporting. This will make progress visible and reveal areas of improvement.

There are great opportunities in the public sector for harvesting gains from ICT, but there is often a lack of knowledge about how the gains from ICT projects can be harvested. Benefits realisation depends on several factors, including organisational, routine and attitude changes. For example, the local and regional authorities are complex organisations offering a great number of tasks and services. Liberation of resources in one area may, as a rule, be immediately transferred to increased investment in, or improved quality of, services in other areas. The Government will contribute to highlight and make more visible public sector digitalisation projects that document how it has been possible to implement ICT solutions and harvest gains from them. These projects have great transfer value, and findings from these projects will be continually presented.

#### Goals



- *By 2009, at least 75 percent of public sector agencies shall report, and can document that digitisation projects have contributed to change and simplification of working routines.*
- *By 2009, the total burden on businesses regarding reports to the authorities, shall be reduced by 300 full-time equivalent jobs, compared with 2004.*



# Total list of goals in eNorway 2009 – with a description of the current position

## 1.1 Digital participation for everyone

- By 2007, schemes shall be established that will ensure that all of those who do not have Internet access have the opportunity to access online services in their neighbourhood.
- By 2007, 80 percent of all official websites shall meet Norge.no's quality criteria regarding accessibility.

### About the current position

#### Access:

Internet access for all: 83 percent

Internet access 13-19 years of age: 97 percent

Internet access 20-39 years of age: 90 percent

Internet access 40-59 years of age: 88 percent

Internet access 60 years of age +: 48 percent

*(TNS Gallup April 2005)*

#### Access to PCs and the Internet via public access offices:

99 percent of the municipalities have libraries with PCs and Internet access for the general public. 650 of Norway's 890 branch libraries have PCs and Internet access for the general public.

*(Forum for kommunale servicekontor, FOSK, The Norwegian Archive, Library and Museum Authority 2003)*

#### Accessibility (including for the disabled):

In 2004, 7 percent of public sector websites met the Norge.no criteria for accessibility.

*(Norge.no 2004)*

## 1.2 Digital skills

- Basic digital skills are important, both in order to prevent exclusion from the labour market and to make it easier to find new work. One stage in the development of the IA Agreement will involve government collaboration with the parties in the labour market concerning initiatives to prevent that a lack of basic digital skills in job situations leads to early exclusion from the labour market. Development of digital skills will also be used by the labour and welfare administration as qualification measures in situations where lack of such skills prevents the priority groups in labour market policy from returning to the labour market.
- By 2008, digital skills will be central to education and training, emphasising:

– ICT as a teaching aid: pupils and students shall be able to use ICT in a safe, well-informed and creative way to develop the knowledge and skills they need as full members of society.

– Use of ICT in academic subjects: ICT shall be integrated in all subjects through curricula and as part of the assessment system where it is relevant.

– Digital skills: Methods and tools must be developed that assess and measure pupils' and students' digital skills, in order to ensure that pupils and students achieve satisfactory digital skill levels.

### About the current position

Surveys into the AFP (Voluntary Early Retirement) scheme: Around 20 percent state that introduction of new technology at the workplace is the most important reason for taking early retirement.

*(FAFO 2002)*

#### Skills:

Use of digital tools has been emphasised as a basic skill in new curricula.

#### PC coverage:

Primary Schools: 6.5 pupils per PC

Further Education: 3.0 students per PC

*(Norway Statistics/KOSTRA October 2004)*

#### PC use: Use of PCs and the Internet in social science subjects:

##### Primary School 7-9 grade:

Never use: 35 percent

Uses less often than weekly: 44 percent

Uses weekly or more often: 21 percent

#### Further education:

Never use: 15 percent

Uses less often than weekly: 26 percent

Uses weekly or more often: 59 percent

*(ITU Monitor 2005, preliminary figures)*

## 1.3 Digital services to the population

- By 2009, all relevant interactive services, which have the population of Norway as their target group, shall be available through the citizen gateway, MyPage.

- All new interactive services, which have the population of Norway as their target group, shall be developed so that they can be made available through the citizen gateway MyPage from the moment they are launched.
- The target groups' usage of electronic services shall be monitored closely. In the case of high volume services (e.g. tax, coordinated admission for higher education, etc.) at least 75 percent of the target group must use the electronic services in 2009.
- In 2009, 80 percent of the users of public digital services shall be satisfied or very satisfied with the services.

#### About the current position

##### *Interactive services for the general public:*

MyPage will be launched before the end of 2005 with the following services: property information, change of general practitioner, order National Insurance card, reservation against Direct Mailing, log for "my vehicle," with the dates of last and next MOT test, change of address, changes to tax details, services from the State Educational Loan Fund.

##### *Use of official electronic services:*

55 percent of people submitted tax returns electronically in 2005  
92 percent submitted applications for higher education places online  
Around 90 percent want response about higher education places online.

*(Directorate of Taxes 2005, Universities and Colleges Admission Services 2005)*

##### *Satisfaction with public digital services:*

72 percent of those who have used public service digital services are extremely satisfied or very satisfied.

*(TNS Gallup June 2005)*

### 1.4 Digital rights

- By 2007, all citizens will be able to choose themselves whether approaches from, and communication with, the authorities shall take place electronically.
- By 2009, a holistic review of the copyright legislation will take place. A natural part of this work would be to assess the application of the regulations concerning copying, spread and technical protection systems linked to digital content.
- By 2009, all public agencies shall have prepared the way for electronic retrieval of one's own personal data in an easy and secure way.

#### About the current position

##### *Use of online public service services:*

47 percent of Internet users agree to use digital services the next time that they have any contact with the civil service.

88 percent of Internet users had used a digital public service during the previous year.

68 percent of Internet users wished to use one arbitrary e-mail address for all communication with the public sector.

##### *Access to own data in official registers:*

In 2004, the Norwegian Data Inspectorate received 235 enquiries about access, correction and deletion of information in official registers.

88 percent are interested in easy access to personal data held by official bodies.

*(Norwegian Data Inspectorate 2005, TNS Gallup June 2005)*

### 1.5 Digital access to knowledge and culture

- By 2007, a strategy shall be presented that allows for schemes that provide access to heritage, including film, literature, museum and archive collections, professional literature sources of knowledge and national archives for sound and pictures. The strategy shall be designed on the basis of copyright agreements and personal data protection regulations.
- By 2009, schemes shall be established that ensure Internet access to cultural heritage and knowledge and experience sources for educational institutions and the general public.

#### About the current position

##### *Access to heritage:*

75 percent of Internet users say that digital access to museums, archives, specialist literary sources of knowledge is very / fairly interesting.

*(TNS Gallup June 2005)*

### 2.1 Value creation, innovation and restructuring

- By 2009, all industries and companies that benefit from skills initiatives which exploit the innovation potential in electronic business shall have access to them.

#### About the current position

##### *ICT skills and electronic business:*

Innovation Norway's BIT programme is a collaborative project for increasing skills in exploiting IT in the SMB sector. Since 1997, 460 pilot projects in 250 pilot companies in 20 industries have been completed. The experience gained has been spread to more than 3,000 companies.

*(The BIT programme, Innovation Norway)*

## 2.2 Digital services adapted to needs of business and industry

- By 2008, all relevant interactive services for businesses shall be available through the service gateway, Altinn.
- By 2008, 75 percent of all submission of the 15 most used official forms shall take place electronically. By 2008, at least 30 percent of the target group for other available electronic services shall use the electronic forms of communication.
- By 2008, 70 percent of businesses shall be satisfied or very satisfied with public digital services.

### About the current position

*Access to services to business and industry*

*Altinn, forms and reports:*

80 forms available at present. Around 670 forms are relevant.

*Electronic submission:*

Register of shareholders report: 62 percent in 2005, 36 percent in 2004.

VAT returns: 46 percent first period 2005.

Business tax return: Around 60 percent in 2005, around 40 percent in 2004.

## 2.3 Increased value creation based on public sector information

- By 2008, a holistic policy will be implemented that secures efficient re-use of public data to increase value creation and development of new services, based on a no-cost principle.
- Evaluation/reporting of the use directive's impact on value creation and consequences for official bodies will be carried out by 2007.
- Sole rights' agreements for re-use of public sector data, which conflict with the EU directive concerning re-use of public sector information, will be reviewed and changed by 2007.
- Government agencies with responsibility for geodata, and most

municipalities, will join Digital Norway and update their data by 2005.

- Modern electronic marine charts, covering the entire Norwegian coast, will be presented by 2008.

### About the current position

*Access to official content data:*

The European content industry makes up approx. 5 percent of EU's GNP. 12-25 percent of the data comes from the public sector.

Geographic data, including meteorological data, make up the greatest proportion of the public investment in official information, followed by cultural information (Pira 2000).

Studies of the potential value creation from public sector data are being carried out. In 2006, the EU will complete a "benchmark study" that will measure the re-use of public sector data in the EU and Norway.

*(www.mepsir.org)*

## 2.4 Electronic purchasing contributes to increasing competitiveness

- By 2007, all public agencies will have goals, strategies and plans for their procurement that include use of electronic processes.
- By 2009, 25 percent of the volume of public sector operational procurement shall be wholly or partly achieved through competition based on electronic processes for coordination with businesses.

### About the current position

The marketplace for *government* electronic commerce, eHandel.no, was established in 2002 ([www.ehandel.no](http://www.ehandel.no)).

Total turnover in the last 12 months (as at June 2005) amounted to around NOK 500 million. As at June 2005, 7 of the 8 largest local authorities are part of this marketplace, and in all 26 authorities. Major health institutions are joining the marketplace.

## 2.5 The will to research

- By 2010, total investment in research shall increase to 3 percent of GNP, 1 percent of which shall come from public sources. In order to raise Norway to a leading research nation has the Government in its Research White Paper proposed to increase the total research investment.
- The focus of the large VERDIKT programme on the wireless society

requires priority on the following main areas:

- User interfaces, administration of information and software technology
  - Communication technology and infrastructure
  - Security, data protection and vulnerability
  - Social, economic and cultural challenges
- In the period leading up to 2009, the Norwegian share of ICT-related EU projects will increase to, and preferably exceed, the size of the Norwegian financial contribution.

#### About the current position

*Norwegian participation in EU's research programmes:*

The success rate for applications for Norwegian participation in EU's framework programmes is 29 percent, both for funding and number of participants.

The average for the EU as a whole is 23 and 17 percent, respectively. Norwegian participants applied for a total of 132 million euro from ICT programmes. Funding of 33 million euro was granted to projects.

Norway finances 1.8 percent of EU's 6th framework programme. Halfway through the project, the Norwegian share of project funding is 1.6 percent.

*(The Norwegian Research Council, accumulated figures for the 6th framework programme.)*

### 3.1 Digital interaction in the public sector

- In the period up to 2009, preparation shall be made for digital interaction in the public sector so that
  - all non-sensitive, formal communication between public sector agencies shall mainly take place electronically. As a first step, the ministries shall implement this at the latest by 2007.
  - all public sector agencies shall have introduced electronically supported case handling and taken the initiative for the establishment of electronic archives.
  - all public sector agencies have taken into use eID and eSignature for all relevant services.

#### About the current position

All ministries will have electronic archives and case handling systems by the end of 2005.

94 percent of municipalities have electronic archives, 67 percent have case and document handling systems.

In the government sector, 88 percent have electronic archives, 69 percent have case and document handling systems. Over the last three years, there has been no reduction in volume of mail through the internal mail system in the government sector, despite the fact that e-mail and electronic case handling has become more common.

*(Government Administration Services, June 2005)*

*(Norway Statistics KOSTRA 2005)*

### 3.2 Use of open ICT standards and open source applications

- By 2009, all new ICT and information systems in the public sector shall use open standards.
- By 2006, a set of administration standards for data and document exchange shall have been established.
- By 2006, all public sector agencies shall have incorporated how they are going to use open standards, service-oriented architecture and open source applications in relevant planning documents.
- By 2008, data and document exchange in the public sector shall satisfy administration standards.
- By 2008, all official forms shall be available electronically and built round a common user interface.

#### About the current position

Administration standards have only been established to a limited extent, e.g. in archives. A new version of NOARK, NOARK 5, is being developed.

### 3.3 Ensure benefits realisation and new ways of working

- By 2009, at least 75 percent of public sector agencies shall report, and can document that digitisation projects have contributed to change and simplification of working routines.
- By 2009, the total burden on businesses regarding reports to the authorities, shall be reduced by 300 full-time equivalent jobs, compared with 2004.

#### About the current position

52 percent of local authorities and 59 percent of government agencies state that digitisation projects have contributed to change and simplification of working routines.

# eNorway 2009 – priority initiatives for the 2005–2007 period

The list below shows initiatives for the 2005-2007 period. This is not a complete list. It has been coordinated with relevant ICT initiatives in the government action plan for modernisation.

## The individual in the digital Norway

### 1. Establishment of the Citizen gateway MyPage on Norge.no

The citizen gateway, MyPage, will be established by the end of 2005 as an online electronic public service office, which allows the general public to access services electronically, based on a personal web page with secure logon. The users will be able to have services carried out, or problems solved, through the gateway, independent of which government agency “owns” the case. The Ministry of Modernisation holds the overall responsibility for the development of MyPage and common security solutions, while the respective agencies and local authorities are responsible for the electronic services that are made available.

*Responsibility:* Ministry of Modernisation  
*Deadline:* 31.12.2005

### 2. Studies of user satisfaction linked to public services

Annual user surveys will be carried out to reinforce user orientation to new services and follow up user satisfaction linked to major, central ICT projects directed at both the general public and businesses. The surveys will provide feedback from the users concerning perceived quality and user-friendliness, whether the public services have provided efficiency gains or have contributed other added value. The surveys will also encapture suggested improvements that can contribute to a more uniform and connected range of electronic surveys.

*Responsibility:* The Ministry of Modernisation, in collaboration with other ministries  
*Deadline:* 31.12.2005

### 3. National goals for digital skills – surveying digital skills

National goals for digital skills will be developed. The necessary surveying will take place in cooperation with professional authorities and relevant communities from research, employer and employee organisations and from major interest groups. The skills goals will be operationalised and tested in a process of cooperation between representatives of user groups and specialist communities.

*Responsibility:* The Ministry of Education and Research/VOX, in collaboration with other ministries  
*Deadline:* 31.12.2006

### 4. Measures to prevent exclusion from the labour market

Basic digital skills are important, both in order to prevent exclusion from the labour market and to make it easier to find new work. One stage in the development of the IA Agreement will involve government collaboration with the parties in the labour market concerning initiatives to prevent that a lack of basic digital skills in job situations leads to early exclusion from the labour market. Development of digital skills will also be used by the labour and welfare administration as qualification measures in situations where lack of such skills prevents the priority groups in labour market policy from returning to the labour market.

*Responsibility:* The Ministry of Labour and Social Affairs and the Ministry of Modernisation  
*Deadline:* 31.12.2006

### 5. Accessibility of publicly funded research

The Government will prepare the way for making the results of publicly funded research, financed through the Research Council of Norway, more easily available online. The Government will reinforce the ongoing development of open and free journals and publication archives on the Internet. By 2006, the Ministry of Education and Research will consider how Norwegian research results can be made more available.

*Responsibility:* The Ministry of Education and Research  
*Deadline:* 31.12.2006

### 6. Accessibility of heritage

A strategy, based on copyright agreements and data protection regulations, shall be presented that allows for schemes that provide access to heritage, including film, literature, museum and archive collections, professional literature sources of knowledge and national archives for sound and pictures.

*Responsibility:* The Ministry of Culture and Church Affairs  
*Deadline:* 31.12.2007

## Innovation and growth in Norwegian business and industry

### 7. Altinn as business and industry's gateway to the public sector

Altinn ([www.altinn.no](http://www.altinn.no)) will be the gateway for business and industry to the public sector, a gateway offering the most possible complete electronic services with dialogues and interactivity, and with a common, simple interface and use of electronic signatures. At present, Altinn is an electronic gateway that makes it easier for companies to find, complete and submit their mandatory forms to government agencies.

The goal of an overall strategy for work on electronic services, directed at the business community (as proposed in the government action plan, A simpler Norway 2005), is to secure coordination of services, secure the pace of development and ensure that the development is in line with the users', i.e. business and industry's, wishes and needs.

*Responsibility:* The Ministry of Trade and Industry has an overall responsibility for Altinn and for implementation of the strategy. The respective agencies and municipalities are responsible for the individual electronic services and development of these.

*Deadline:* Altinn is already operative and will have all the functions for dialogue by June 2005. Altinn will offer use of electronic signatures through the security gateway by 31.12.2005.

### 8. Action plan for electronic procurement and electronic commerce in the public sector

New procurement regulations from 2006 and the establishment of a common PKI-based identity and signature solution in 2005, will provide new opportunities for increased use of electronic procurement and e-commerce in the public sector. The Marketplace ehandel.no is already in place, but turnover so far has not achieved the expected targets. For this reason, an Action Plan for e-commerce in the public sector for the period 2006-2009 will be prepared. The action plan will focus especially on use of electronic procurement processes for those parts of the supply chain that are not covered today by the Database for Public Procurement (DOFFIN) or the Marketplace ehandel.no. The action plan will also contain initiatives aimed at strengthening the competitive edge of Norwegian business and industry, especially in the SME sector. In this connection, priority will be placed on the work of making [www.doffin.no](http://www.doffin.no) as user-friendly as possible.

*Responsibility:* Ministry of Modernisation

*Deadline:* 31.12.2005

### 9. Development of skills initiatives linked to e-business operations, under the aegis of Innovation Norway

Experience indicates that user-controlled software, based on network cooperation, industrial participation, etc, is suitable for strengthening competitive edge and innovative ability, by employing more efficient electronic business operations and ICT solutions. Innovation Norway will develop this software in 2006, partly because all industries and companies that benefit from skills initiatives that exploit the innovation potential in electronic business shall be offered this by the end of 2009.

*Responsibility:* The Ministry of Trade and Industry/ Innovation Norway

*Deadline:* 31.12.2006

### 10. Operationalisation of ARKTRANS (ARchitecture for TRANSport)

The Government has based its decisions on ARKTRANS being used as a framework in developing electronic services in the transport sector. ARKTRANS will prepare the way for improved quality and re-use of electronic information in the entire transport sector. From and including 2005, work on operationalising, and benefiting from, ARKTRANS in practice will be given to ITS Norge. ITS Norge is an association of transport agencies, research institutions and the business community. Work on ARKTRANS is central for the achievement of holistic, integrated solutions for transport of persons and goods, an efficient transport industry, improved needs coverage for transport users, improved environment, improved safety and reduced vulnerability.

*Responsibility:* Ministry of Transport

*Deadline:* Permanent administration structure  
31.12.2007

## A coordinated and user-oriented public sector

### 11. Common infrastructure for use of eID and e-signatures in the public sector.

The Brønnøysund Register Centre will enter into, and administer, framework agreements on behalf of the government and municipal sector with the players in the market who offer the necessary products and services.

Important components in the infrastructure will include:

- A secure gateway that will support electronic services for the business community and the general public.
- The registry service of the secure gateway, which will support rapid distribution of eID/e-signatures to the general public, based on other forms of electronic authentication, such as passwords and security



codes allotted by government agencies for use in their own services. Schemes will also be established for the distribution of high security level certificates, which will require meeting in person at public offices, e.g. New Work and Welfare Administration offices, libraries, etc.).

- A common agreement for issue of eID/e-signatures to government agencies and public sector employees.

To ensure that the solutions included in this infrastructure meet the requirements laid down in the Specification for electronic ID and signature (PKI) in the public sector, a voluntary government approval scheme will be established.

*Responsibility:* The Brønnøysund Register Centre and the Ministry of Modernisation

*Deadline:* 31.12.2006

## 12. Paperless administration

Preparation shall be made for all non-sensitive, formal communication between public sector agencies to mainly take place electronically. After a certain date, paper letters, or other formal communication, will not be sent between government agencies. By 2007, all non-sensitive communication between ministries will take place electronically.

*Responsibility:* Ministry of Modernisation

*Deadline:* 31.12.2007

## 13. Improved electronic communication through increased interoperability

More and more investment will be made in coordination and further use of technical solutions, concepts and definitions that are highly significant for electronic coordination with and within, the public sector. The work will include multiple, partly parallel activities, including establishment of a standardisation function for the public sector, based on the interaction between the relevant agencies. Important expressions and metadata must be clarified and coordinated, and it is necessary to improve knowledge sharing and information spread.

*Responsibility:* Ministry of Modernisation

*Deadline:* 31.12.2006

## 14. Improved electronic communication through increased interoperability

A holistic and clear pricing policy for re-use of, and value creation that is based on, public sector information must be drawn up. By the end of 2005, the government will propose new guidelines for pricing public sector information, which will apply to re-use of information within the culture, research and meteorological sectors.

*Responsibility:* Ministry of Modernisation

*Deadline:* 31.12.2005

## 15. Improved basic data in the personal data area

The future population register will, to a far greater degree than today, be a central government register with identifiers and key information about individual members of the general public. The work will include clarification of register content and administrative principles, legal challenges and administrative and economic consequences. The work is coordinated with revision of the Population Registry Act, and its associated regulations.

*Responsibility:* There is an ongoing discussion concerning division of responsibility between the Ministries of Finance and Modernisation.

*Deadline:* Progress schedule for the discussion work will be presented in the autumn of 2005.

## 16. Access to all official localised information through Digital Norway

Digital Norway will allow all public producers, administrators and major national users of geographic information (maps and geodata) and property data to establish a common, coordinated and user-oriented service. The service will make all standardised data freely available for all in an administrative partnership, through a common gateway. The service will also be made commercially available and as a free information source for the general public.

The activities of Digital Norway must be regulated through, as far as possible, a standardised set of agreements, a common financial model, further development of standards and a common technological platform, based on data being made available online. The Norwegian Mapping Authority will be the coordinator of Digital Norway. The investment should increase the breadth of available localised information, as well as improving quality and availability for all.

*Responsibility:* The Ministry of the Environment in collaboration with other ministries, municipalities and the Norwegian Mapping Authority.

*Deadline:* 31.12.2005 for the first phase of Digital Norway.

## 17. Digital management and administration of personnel resources in the public sector

Digital management shall become an integrated part of management roles in the public sector. Digitalisation offers so many opportunities and consequences that all managers must be enabled to perform digital management.

– Initiatives shall be put in place that ensure that Digital management becomes an integrated part of management roles in the public sector, cf. the upper management programme, management training, etc.

– Preparation must be made so that public sector employees are able to meet a digital work situation.



Responsibility: Ministry of Modernisation  
Deadline: 31.12.2006

### 18. S@mspill 2007

S@mspill 2007 is the national strategy for ICT development in the health and social affairs sector. The vision for this work is that patients' and users' interaction with the services are experienced as uniform. The strategy includes a "local authority programme", which will contribute to a coordinated development of electronic collaboration with, and within, the local authority health and social services. Six local authority "lighthouses" will be followed over a period of 3 years. The lighthouse projects are projects of a national innovative nature that have a transfer value for other municipalities and that involve testing of actual initiatives for electronic communication. The lighthouses shall identify the needs, potential gains and possible solutions for electronic cooperation within the municipal health and social security services, and between the social services and the specialist health services. The projects must have a stimulating effect by making opportunities visible and documenting benefits.

Responsibility: The Directorate of Health and Social Affairs  
Deadline: 31.12.2008

### 19. Creation of the IPLOS register

IPLOS is an information system, based on data about individuals for applicants and service recipients of municipal social and health services, which will be introduced in all municipalities from 1 January 2006. The system is a tool for documentation, reporting and statistics, which shall provide information about applicants for, and recipients of, services. This will be a mandatory part of KOSTRA and provide a better basis for planning and management, as well as assessment of quality and efficiency between the services and local authorities. In order to ensure the creation of the central pseudonym IPLOS register, the Government has proposed, in a legislative bill (Ot.prp. no. 65 (2004-2005) *Changes in the Personal Health Data Filing Act*) that allow registers, with basis in law, to also process health information in order to accept tasks covered by the Social Services Act. The regulation governing the creation of the IPLOS register will be sent out to consultation in the spring of 2005.

Responsibility: The Ministry of Health and Care Services  
Deadline: 1.1.2006

### 20. Benefits realisation in public sector ICT projects

*Experience transfer from good digitalisation projects*

"Best practice" guidelines will be drawn up, showing examples of successful ICT projects in various parts of the public sector. Examples shall also document how these solutions have been integrated into the organisations, as well as which gains/expected impacts have been achieved.

Responsibility: Ministry of Modernisation  
Deadline: 31.12.2005

*Guidelines for measurement and reporting gains*

"Best practices" for targeted benefits realisation will be developed in the public sector, through improved follow-up of resource use of ICT investment and improved control when the expected impacts of the investment are harvested. Good measurement of the development assumes that relevant indicators and stable, and predictable, schemes for regular reporting are established. This will make progress visible and reveal areas of improvement.

Responsibility: Ministry of Modernisation  
Deadline: 01.07.2006

*Measure gains from projects that receive funding from HØYKOM.*

Projects that receive funding from the Høykom programme shall report such quantitative indicators as liberating workers, reducing operating costs, short case turnaround, establishment of new services, reduced costs in service production and reduced costs for service users. The projects will also report on a number of qualitative indicators.

Responsibility: The Ministry of Modernisation, and others  
Deadline: 31.12.2006

### 21. Continuing the Høykom programme

The Høykom programme shall be continued until 2007, strengthening the development of broadband in the peripheral regions of the country, and stimulate to exploitation of the potential in modern broadband communication. The goal is for increased focus on results and gains within Høykom to have transfer value to the Government's other investment in efficiency and simplification of the public sector using ICT. The continued programme will emphasise the support for projects that show potential for large scale roll-out and systematically measure and make visible the gains of the projects. The activities of Høykom shall actively make use of and communicate from the programme's knowledge base concerning solutions that render the provision of public services more efficient and improve them, using electronic communication. The user perspective must form a central part of the activities of the programme.

Responsibility: Ministry of Modernisation  
Deadline: 31.12.2007

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Norway's advanced use of technology shall simplify the daily lives of the population and business and industry, and contribute to promoting value creation and thereby ensure prosperity and welfare for future generations.



# eNorway 2009

– the digital leap

The Norwegian Government's policy for the Information Society  
June 2005



MINISTRY OF MODERNISATION