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	Preface	3
	Summary	4
	<b>1</b> Digitization for better services and more efficient use of resources	6
	<b>2</b> Strategic choices for the digital public sector of the future	14
	<b>3</b> Common preconditions for the digital public sector	20
	<b>4</b> Digitization within selected areas	30
	<b>5</b> Positive encounter with public services	44
	<b>6</b> Better execution and use of resources within the public sector	52



# Preface

People born in 1993 and later have never experienced a world without the internet. This generation of Norwegians was born not only fitted with skis on their feet, but also holding a web tablet in their hands. Mobile telephones are just as natural for them as electricity. Digital solutions have become a natural part of everyday life for adults as well. Two out of three aged between 65 and 74 use the internet. The Government is now in the process of establishing an efficient and user-oriented public sector for both young and old.

Public services will be digitized. Norway is to be at the forefront internationally in terms of providing digital public services to its citizens and businesses.

Currently, much of the written communication between the citizens and the public sector is based on use of paper. Digital communication must be requested specifically. This will now be turned completely around. In the future, digital communication will be the general rule. Submission of applications, invoicing, making appointments and distribution of decisions and various types of reports will be handled digitally. This will make it less time consuming to deal with the public sector, in addition to making the sector more efficient. This will free up more resources for healthcare and welfare measures.

Access to your own health and tax information will be obtained by logging in with a secure electronic identification (eID). People and businesses will receive mail from the public sector in a secure digital mailbox and be notified via SMS text messages and e-mail when they receive such digital mail.

Paper-based solutions will still be an option, but the solutions will be digital by default. For businesses, digital services will replace all paper-based communication with the State.

The Norwegian model is a community-based model. Basic welfare services are available for everyone and are mainly financed by the community. As a good public sector constitutes one of the foundations of the Norwegian model, the public sector will be safeguarded and strengthened. The welfare state has been developed step by step through improvements, adjustments and innovations. Even within areas which currently function well, tomorrow's solutions may prove to be both smarter and more efficient.

The digital public sector of the future will make everyday life a little bit easier for the 1993 generation, as well as for the rest of us.

Oslo, april 2012.

  
Jens Stoltenberg Rigmor Aasrud

# Summary

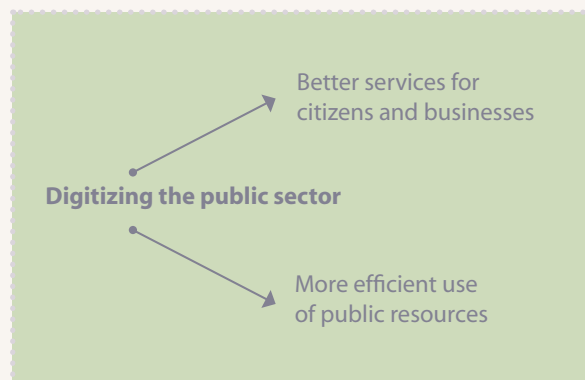
The Government has great ambitions for the public sector. A strong and efficient public sector is needed to ensure a good development for the Norwegian society. Digitization will generate noticeable improvements across the public sub-sectors during the coming years. Digitization will result in both more positive and faster interaction with the public sector for citizens and businesses alike as well as more efficient use of public sector resources.

This is a presentation of the Government's main policy elements for the digitization program for the public sector.

## The objectives of the Government are that

- the public sector is to be accessible online to the extent possible
- web-based services are to be the general rule for the public sector's communication with citizens and businesses
- a digital public sector is to result in improved services
- digitization of the public sector is to free up resources for areas in need of more resources

**The ambition of the Government is that Norway shall be at the forefront internationally in terms of development of a digital public sector.**



The Government's strategy for the digital public sector of the future is based on these principles: Digital communication is to be the general rule for contact with the public sector

1. The public sector is to provide unified and user-friendly digital services
2. Login to public web services is to be simple and secure
3. All citizens and businesses will receive mail from the public sector in a secure digital mailbox
4. Citizens and businesses will be notified via SMS text messages and e-mail
5. Necessary assistance is to be provided to citizens to ensure they will be able to find and use digital services
6. Development of ICT solutions is to be viewed in the context of the public sector's work processes and organization
7. Protection of privacy and information security are to be safeguarded
8. Digitization measures of relevance for several services are to be coordinated

Realization of the digital public sector of the future is based on certain premises. A digital infrastructure for the public sector will be required. This infrastructure will consist of some common cross-sectoral elements, such as

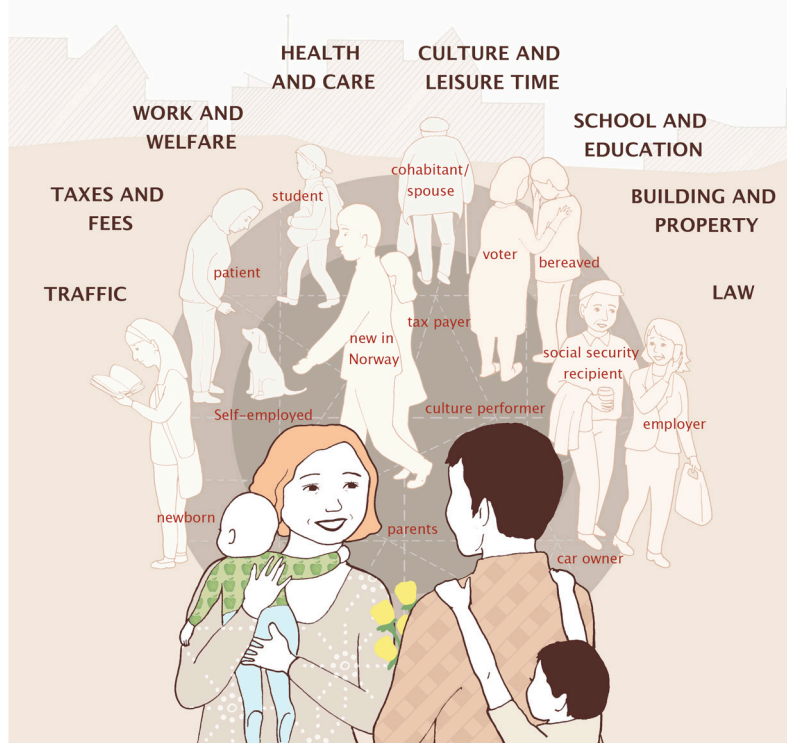
electronic IDs, digital mailboxes and public registers providing the necessary support of the digital public sector. Common components must also be managed, organized and funded in an efficient manner to ensure good development of the digital infrastructure. The Government also emphasizes security issues in connection with the ICT systems. The operations must be robust and it must be ensured that information will not fall into the wrong hands. In addition, the legislation must be adapted to facilitate and support digital communication.

The development of the digital public sector is part of a focused effort to ensure positive encounters with public services for the citizens. Contact with the users is to be fast, understandable and carried out in a respectful manner.

The users are to be involved in the development of public services. The public sector is to be open and accessible and communicate in a clear and understandable manner.

The Government will also ensure better use of resources internally within the public sector. Common functions will be coordinated, work processes digitized, procurements made more efficient and the competence enhanced. Digitization will also improve the opportunity to allocate skill-intensive jobs to the districts. The Government will furthermore emphasize preparation of good plans for realizing any gains already during planning of the measures in the eGovernment Program. Such gains may be in the form of reduced costs or improved quality of the public services.

## FUTURE DIGITAL SERVICES ESTABLISHED ON A COMMON PLATFORM



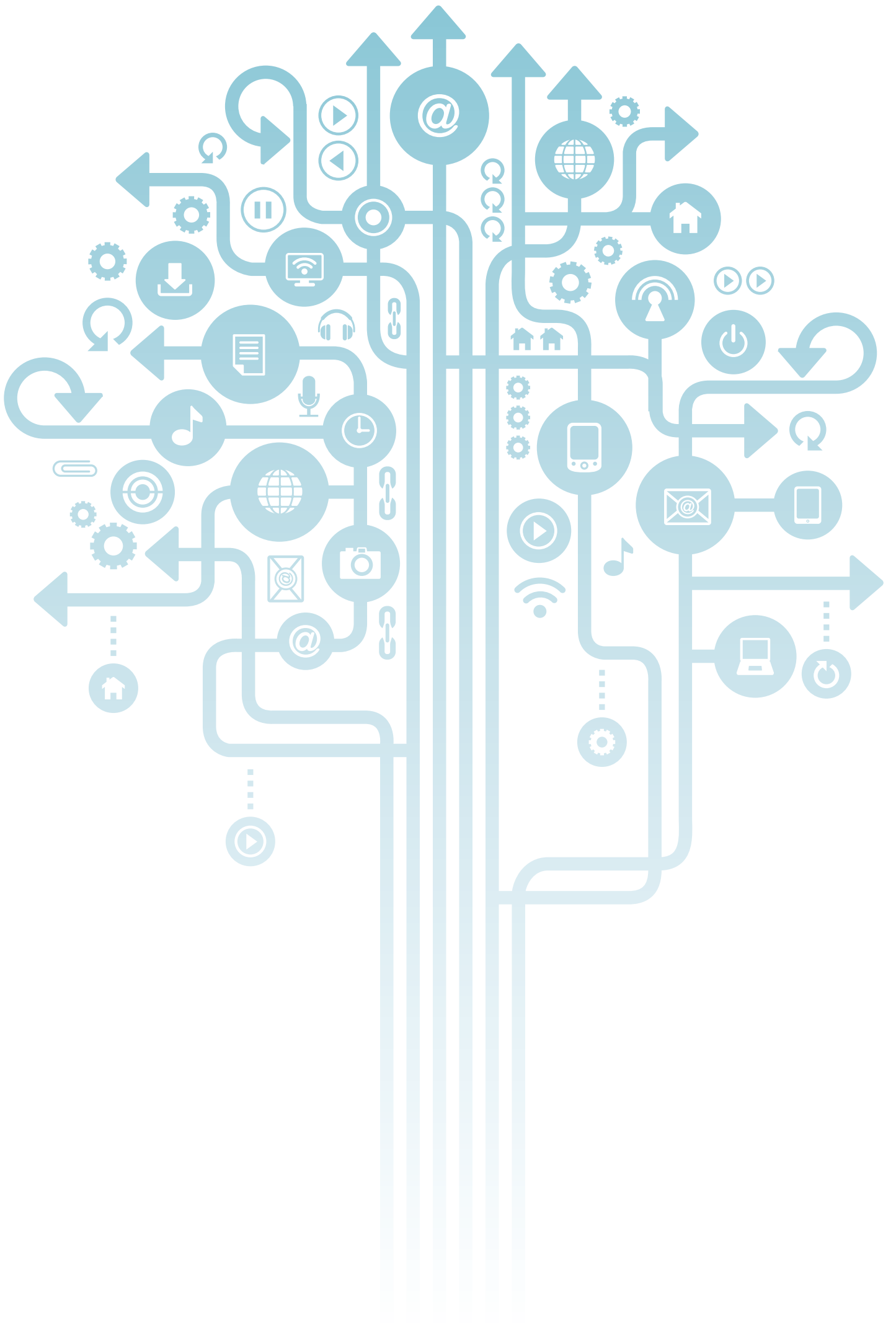
### Common technical solutions:

- eID
- digital mailbox
- contact information
- Altinn
- public common registers

### Management, organizing and financing of common ICT components

### Accommodate regulations to digital administration

Security, resilience and privacy protection





# 1 Digitization for better services and more efficient use of resources



The Government wants a strong and efficient public sector to ensure a good development of the Norwegian society. Continuous development of the public sector is important to fulfil new needs, take advantage of new opportunities and ensure the necessary confidence in and support of public solutions by the citizens.

The needs of the users is to be at the heart of the development of the public sector, but efficient use of the society's common resources is also an important consideration. Digitization will generate noticeable improvements across the public sector over the coming years. Digitization will result in both a faster and more positive interaction with the public sector for citizens and businesses alike, as well as more efficient use of public sector resources.

It is the ambition of the Government that Norway shall be at the forefront internationally in terms of development of a digital public sector. This is a presentation of the Government's program for a digital public sector in Norway – the eGovernment Program.



### Digitization frees up resources

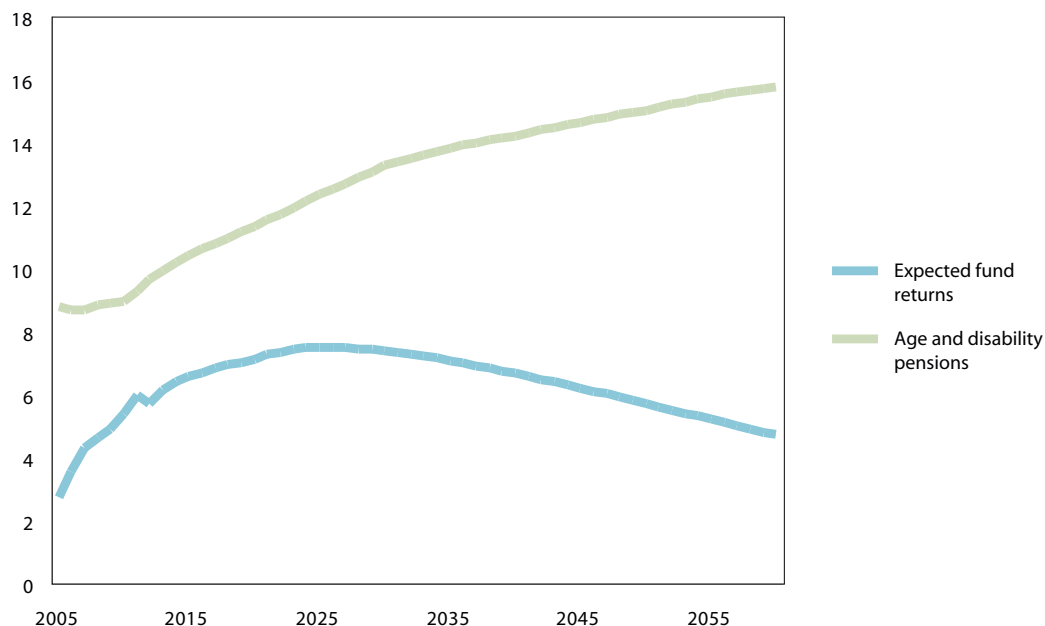
The City of Copenhagen has calculated the average cost to the municipality for different types of contact with the general public. These calculations indicate a potential for considerable savings by shifting the contact with the general public to the digital channel whenever appropriate.

These calculations only address the current costs of the municipality and do not take into consideration how the general public experiences the different channels nor any investment costs associated with establishment of alternative channels.

## What is the current situation?

Norway has repeatedly been ranked number 1 in the United Nation's annual human development report. Thus, Norway has an excellent basis for good development of the society in the years to come. In general, Norwegians have a high level of confidence in each other and the public sector. Overall, Norway has a public sector that functions well. The population is highly educated. A large share of the population is employed, and the labour force participation of women is particularly high in Norway. The unemployment rate is the lowest in Europe. The state budget has a large surplus and money is set aside in a pension fund. In spite of Norway's good fortune, however, recent developments in Europe have highlighted the importance of good governance of the economy.

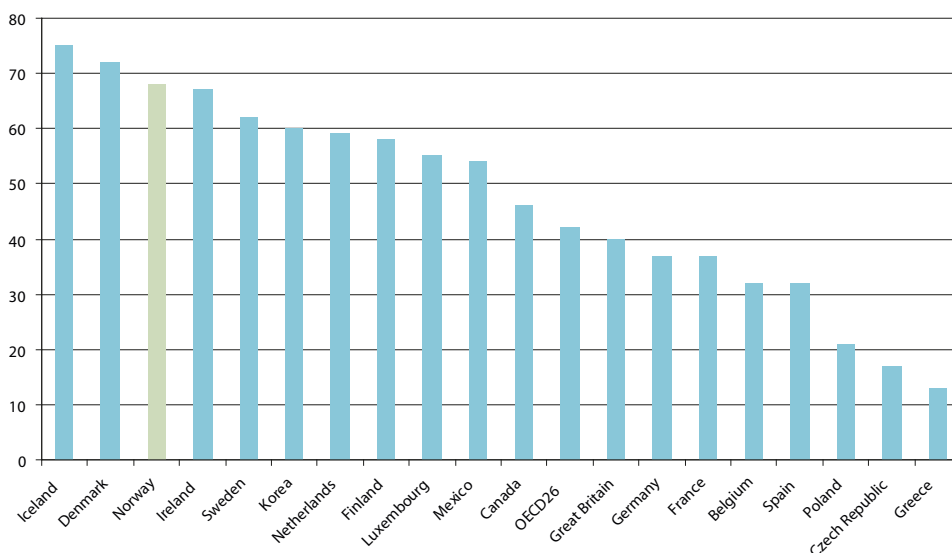
We are faced with considerable challenges within several areas in the coming years. The pension expenses in the National Insurance Scheme will increase in the years to come. The need for nursing and health services and the need for a highly competent workforce require smart use of resources. Fewer resources must be spent on tasks which can be solved more efficiently in the future than currently is the case. Resources must be allocated appropriately, and the best work methodology and the smartest technologies must be utilized.



Expected real return for the Government Pension Fund Global and pension costs for the National Insurance Scheme. Percentage of trend-GNP for the Norwegian mainland  
Source: Ministry of Finance / National Budget 2012

We have become accustomed to digital tools within much of our working and personal life. Most of us use online banking services, send e-mails and order our vacations via the internet. Figures from Statistics Norway show that 95 percent of the population between the ages of 16 and 74 had access to the internet at home in 2011, while 82 percent were online every day or almost every day. This percentage is also on the rise among the older generations; 2 out of 3 between the ages of 65 and 74 use the internet.

Citizens and businesses have high expectations regarding the public sector, and many are ready for online interaction with the public sector. Younger generations in particular expect public services to be available online. Due to the high level of access to the internet, knowledge regarding use of digital services among the population and the growing expectation that public services be available online, it is both important and natural to develop digital public sector services.



Share of population communicating online with the public sector  
Source: OECD Government at a Glance 2010

### Agency for Public Management and eGovernment – Difi

Development and renewal of the public sector will be handled by Difi. The associated tasks range from advisory and analysis functions, distribution of knowledge to generation of strategy as well as development and administration of common public sector elements. The Agency has a special responsibility for multi-sector tasks and challenges. Key priority areas are leadership and organization issues in relation to the public sector, digital services and good public procurement processes.

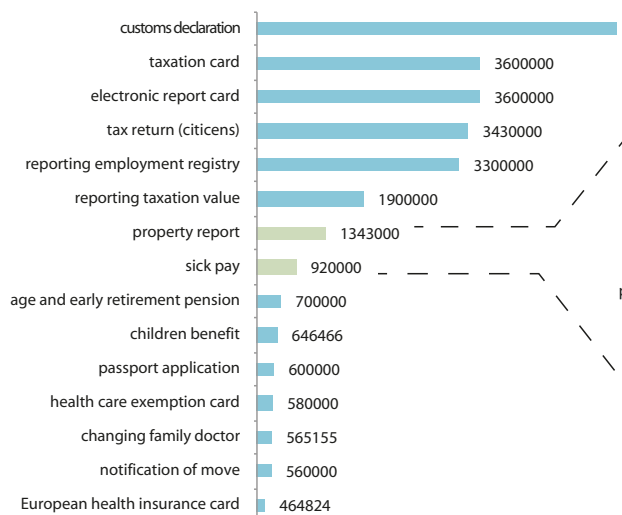
A wide range of public functions and services have already been digitized in Norway. Norway is at the forefront as regards provision of digital services to business and industry. But there is still some ground to cover. Mapping carried out by the Agency for Public Management and eGovernment (Difi) in 2011, showed that only about 30 percent of the 100 most heavily used governmental services are fully digitized.

### Need for coordination

The public sector consists of the State, the municipalities and the county municipalities. The State is characterized by a division into sub-sectors, and the individual ministers and ministries are fully responsible for their own sectors. A range of underlying agencies sort under the various ministries, and many of these agencies have a great deal of freedom.

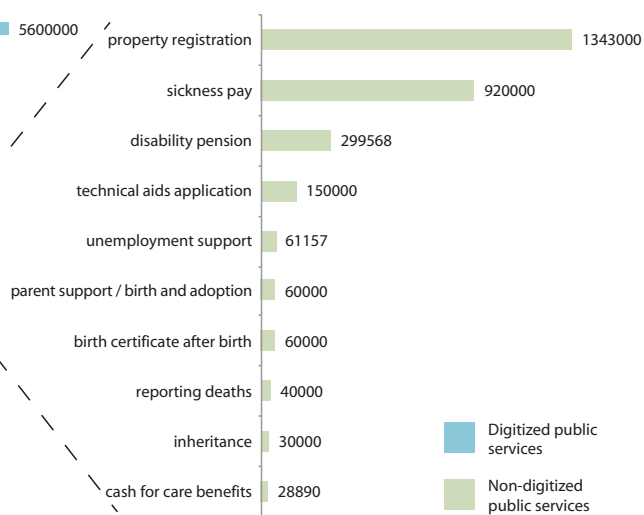
The public sector structure entails challenges as regards unified cooperation, coordination and harmonization between the sub-sectors and agencies. These challenges are highlighted and reinforced in connection with technological developments and the ambitions of public agencies in terms of digitization of their services. The amount of data and information is growing rapidly. The public sector handles a lot more information today than it did just a few years ago, and the needs of the users more often involve several sub-sectors. To an increasing degree, citizens and businesses request services and solutions requiring information to be exchanged between different public sector agencies. This development entails a challenge to the established organization of sub-sectors and areas of responsibility. Thus, better coordination of the ICT development has become a necessity.

#### Many state services are digitized ...



The fifteen state services with the heaviest traffic per year (except health services)

#### ... but major services still remain



The ten largest state services not yet digitized

Source: Difi Report 2011:2, «Digitalt førstevalg – status for elektroniske tjenester i staten» (Digital by default – status of electronic state services). In general, health services and municipal services are not included.

## The eGovernment Program points the way for the public sector of the future

This is a presentation of the main elements in the Government's digitization program for the public sector.

### **The objectives of the Government are that**

- the public sector is to be accessible online to the extent possible
- web-based services are to be the general rule for the sector's communication with citizens and businesses
- a digital public sector is to result in improved services
- digitization of the public sector shall free up resources for areas in more need of resources

**The ambition of the Government is that Norway shall be at the forefront internationally in terms of development of a digital public sector.**

It is to be easy for citizens and businesses to interact with the public sector regardless of whether the State, the municipalities or the county municipalities provide the services in question. The eGovernment Program is mainly aimed at the State sector. It is the responsibility of the municipalities themselves to establish good digitization and development measures within their areas of responsibility. The Government considers it important that the public sector be presented in a uniform manner vis-à-vis citizens and businesses. Thus, the Government will emphasize development of good common solutions within the public sector which will benefit both the State, the counties and the municipalities. In addition, the Government will contribute to good framework conditions for the digitization work to be handled by the municipalities. The State will invite the municipal sector to cooperate closely with the State sector on this work.

This program has a long-term perspective and will constitute the premise for the Government's further work on digitization of the public sector. The priority of the various measures, and how fast to proceed, will be evaluated continuously.

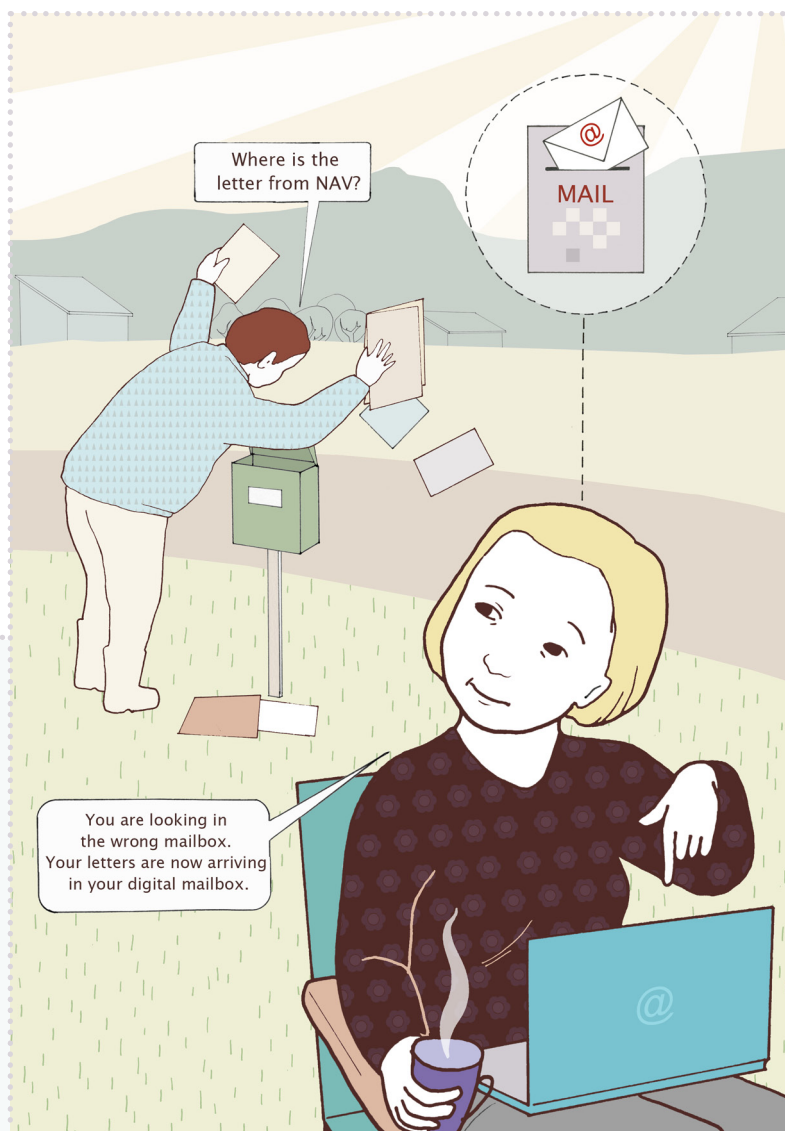
### **Digital Agenda for Norway**

The Government is in the process of preparing a Digital Agenda for Norway. The Digital Agenda is a unified policy for ICT and creation of value which will be presented in 2012. This strategy is linked to the European Digital Agenda. The eGovernment Program is part of the Government's Digital Agenda for Norway.

Measures requiring increased funding will be included in the Government's annual budget proposals submitted to the Storting (Norwegian Parliament). The digitization initiative must be considered in relation to other initiatives and be adapted within the limitations imposed by a prudent financial framework.

The specific solutions for realization of the digital public sector of the future must be evaluated continuously for each individual area. Thus, this document points the way for the digitization work, but does not address any issues in an exhaustive manner.

There are several different premises among the citizens for use of public services. There are circumstances where personal appearances and individual follow-up will be required. Many public welfare services also required personal contact, such as teaching, hospital services and care of the elderly. In many cases, however, use of new technologies may allow for more efficient handling of even such tasks at the same time as users are ensured better solutions. Furthermore, digital solutions may improve the access to public services for users with disabilities, for example by them not having to appear in person at public offices.







## 2 Strategic choices for the digital public sector of the future



**The eGovernment Program for the digital public sector of the future is based on these principles:**

**1. Digital communication is to be the general rule for communication with the public sector**

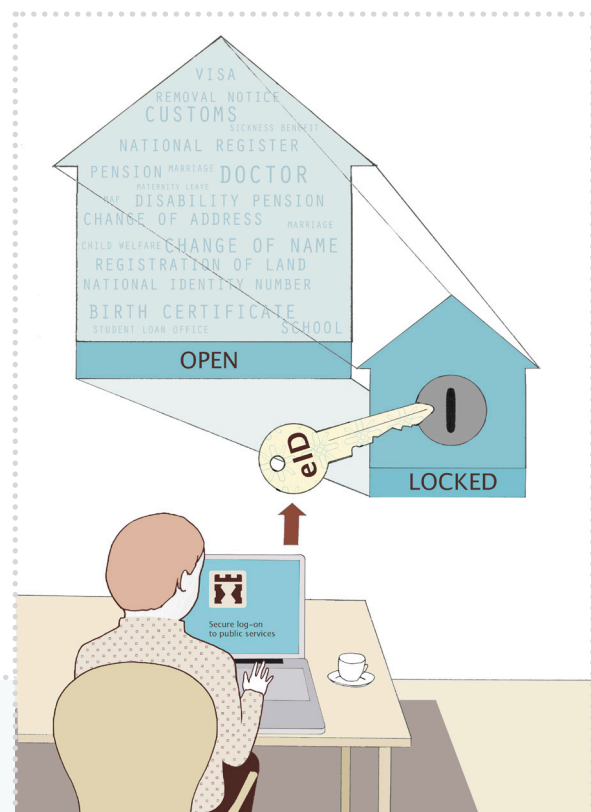
Relevant services will be provided digitally and become the standard means of communication with the public sector. Citizens must actively select manual solutions if they prefer such solutions. This principle is termed digital by default. Services well suited for digitization are submission of applications, invoicing, making of appointments, distribution of decisions and various types of reporting. Services requiring proximity to the users are not included. The plan is to make digital services mandatory for businesses.

**2. The public sector is to provide unified and user-friendly digital services**

Digitization will make use of public services easier for the users of such services. Digitization will also allow linking of services from different agencies to the same online service, which will facilitate handling of services from several public bodies during a single session. Thus, the users will no longer have to register the same personal information several times over. Establishment of unified services will be a gradual process.

**3. Login to public online services is to be simple and secure**

Login with a secure electronic identity (eID) will make it possible for citizens to engage in secure digital communication with the public sector. Provisions have been made for use of several different types of eIDs. In addition to login, secure eIDs will facilitate digital communication of sensitive and confidential information and replace the hand-written signatures used today.



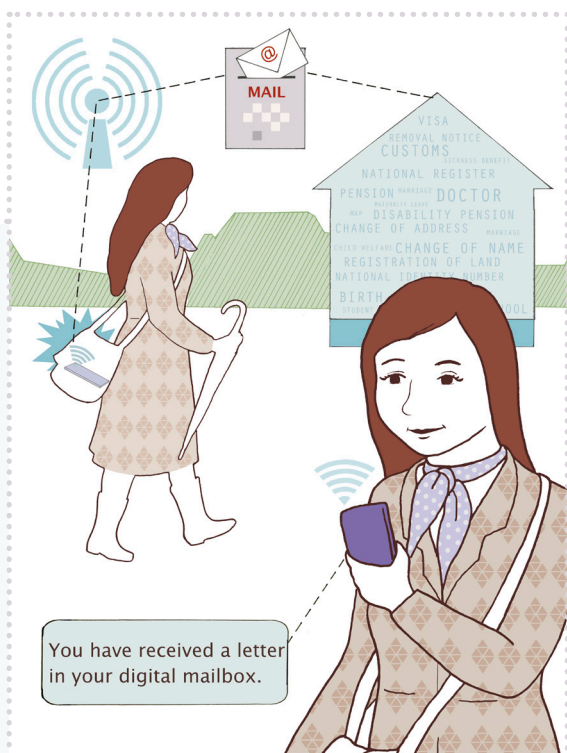
«Citizens must actively select manual solutions if they prefer such solutions»

#### 4. Citizens and businesses will receive mail from the public sector in a secure digital mailbox

The objective of the Government is for all citizens who have not made a reservation against this, to receive all mail from the public sector in a secure digital mailbox. An exception will be made for citizens who cannot exercise their right to make a reservation against such mail, for example due to health considerations. The plan is to make digital mail mandatory for businesses. In contrast to regular e-mail services, the digital mailbox service will be a secure service.

#### 5. Citizens and businesses will be notified via SMS text messages and e-mail

Citizens and businesses will be able to register how they prefer to be contacted by the public sector. Contact information such as e-mail addresses and mobile telephone numbers shall be used for notification purposes when mail is sent to the digital mailbox and for sending simple, non-sensitive information, such as reminders about appointments and deadlines. Contact information is to be registered in one location. This will prevent the users from having to register e-mail addresses and mobile telephone numbers several times to different agencies within the public sector.



#### 6. Necessary assistance is to be provided to citizens to ensure they will be able to find and use digital services

The online self-service solutions should be good enough to reduce the need of user support and personal guidance to a minimum. However, assistance and guidance will be available for users in need of this in the form of online guidelines or direct contact, for example via chat or telephone. The individual agencies will be responsible for ensuring that the users receive the necessary help and guidance. State agencies with overlapping areas of responsibility are to communicate the inter-relationships in a clear manner and provide guidance to services delivered by other public agencies.

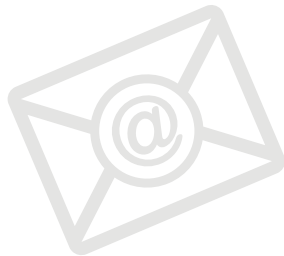
#### 7. Development of ICT solutions is to be viewed in the context of the public sector's work processes and organization

Digitization provides plenty of opportunities for thinking outside of the box regarding organization, legislation and how to resolve the tasks and duties assigned to the public sector. ICT can be utilized to improve existing or develop totally new work methodology to achieve better services and more efficient case processing. In connection with all development work, the public sector is to evaluate how tasks may be handled in the most efficient manner with the highest quality service possible for the users.

«The online self-service solutions should be good enough to reduce the need of user support and personal guidance to a minimum»

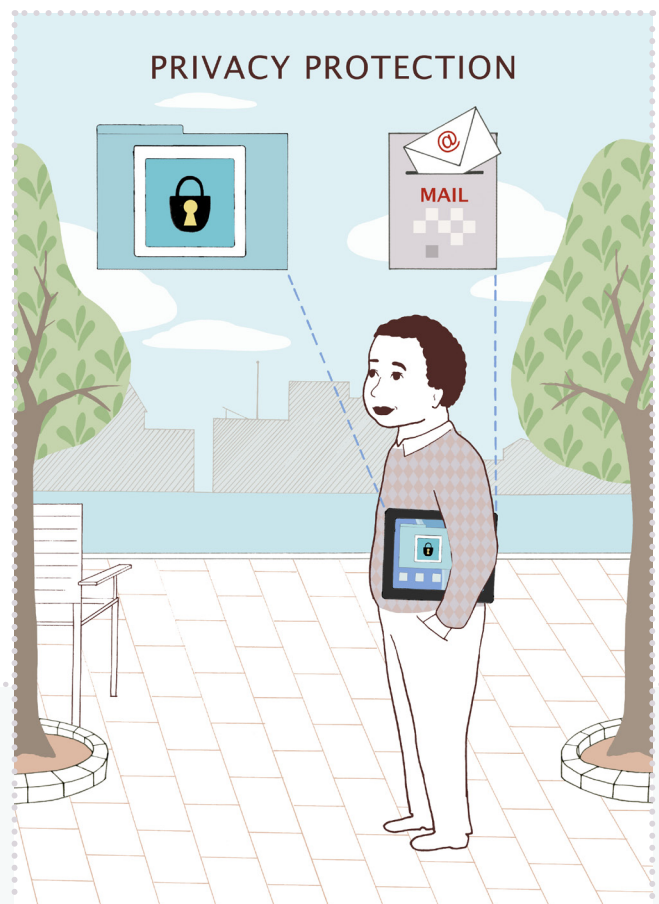
### 8. Protection of privacy and information security are to be safeguarded

The development of digital services must safeguard protection of privacy for all individuals. Securing good quality data protection solutions is crucial to assure citizens will have confidence in digital tools and thus feel confident using them. The digital solutions developed should minimize the exchange of surplus information between agencies. Digital access solutions may also make it easier for users to maintain an overview, and thus control, of their own personal data. Another important precondition for a digital public sector is secure and robust computer systems and networks. The threat situation changes constantly, and up-to-date knowledge and awareness regarding information security are a necessity. What constituted a good security solution yesterday, will not necessarily be good enough today or tomorrow.



### 9. Digitization measures of relevance for several services are to be coordinated

An ambitious eGovernment Program involving a wide range of digitization measures over several years will require close coordination and follow-up. Relevant partners, both state, municipal and private, must become involved in the development of ICT solutions for the individual agencies. Implementation of cross-sectoral measures must be viewed in relation to the digitization effort within the individual sub-sectors to ensure interdependencies are resolved.



«The development of digital services must safeguard protection of privacy for all individuals»

## Measures in the eGovernment Program

### 3 Common preconditions for the digital public sector

- 3.1. Common solution for electronic IDs is a precondition for easy-to-use and secure digital services
- 3.2 Altinn is a common technical platform for digital services
- 3.3 All citizens and businesses will be issued a secure digital mailbox
- 3.4 A common scheme will be established for contact information and reservations against digital mail
- 3.5 Common public registers are to support the digital public sector
- 3.6 Common components are to safeguard the overall needs of the public sector
- 3.7 The State's ICT infrastructure and systems shall be robust and very secure
- 3.8 Legislation is to facilitate digital mail by default
- 3.9 Legislation is to be adapted to a digital public sector
- 3.10 Digital reuse of registered information by other public agencies is to be facilitated

### 4 Digitization within selected areas

- 4.1 Work and welfare
- 4.2 Health and care
- 4.3 Police and justice
- 4.4 Tax
- 4.5 Student loans and grants
- 4.6 Municipalities

### 5 Positive encounter with public services

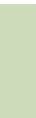
- 5.1 The State is to offer electronic invoicing
- 5.2 Citizens will receive necessary assistance to find the proper authorities
- 5.3 User involvement in the development of the digital public sector of the future
- 5.4 The public sector is to use plain and understandable language
- 5.5 Simplification for business and industry
- 5.6 The public sector is to provide good information on case procedures, appeals and time needed for case processing
- 5.7 Public data is to be accessible and available for use in new contexts

### 6 Better execution and use of resources within the public sector

- 6.1 More efficient ICT operations within the state sector
- 6.2 Digital exchange of documents between agencies
- 6.3 Electronic supplier invoicing vis-à-vis the State
- 6.4 Coordination of state procurements whenever beneficial
- 6.5 Simpler and more efficient public procurement processes
- 6.6 Further development and coordination of competence enhancement within the State
- 6.7 Information on quality and results is to be accessible
- 6.8 The benefits gained from the measures in the eGovernment Program are to be realized



## 3 Common preconditions for the digital public sector





Functional digital services within the public sector often require establishment of the same type of technical solutions. Development of some common solutions will be required in order to avoid different public sub-sectors having to develop their own solutions to cover more or less the same needs. Such common solutions are referred to as common components. Important common components currently in use include the registers with information on people, properties and businesses (the National Population Register, the Norwegian Cadastre (Land Register) and the Central Coordinating Register for Legal Entities) and other common solutions such as Altinn and the common infrastructure for electronic IDs. The users will also benefit from common components, for example in the form of a common login solution for public services and a common digital mailbox for mail from the public sector. Thus, the common components will facilitate good and uniform digital services across public sub-sectors.

There are, however, certain challenges associated with such coordination of common solutions and the current organization of areas of responsibility. It will therefore be necessary to evaluate how to organize, manage and finance central elements of the common ICT structure in order to ensure they will support the general digitization of public services.

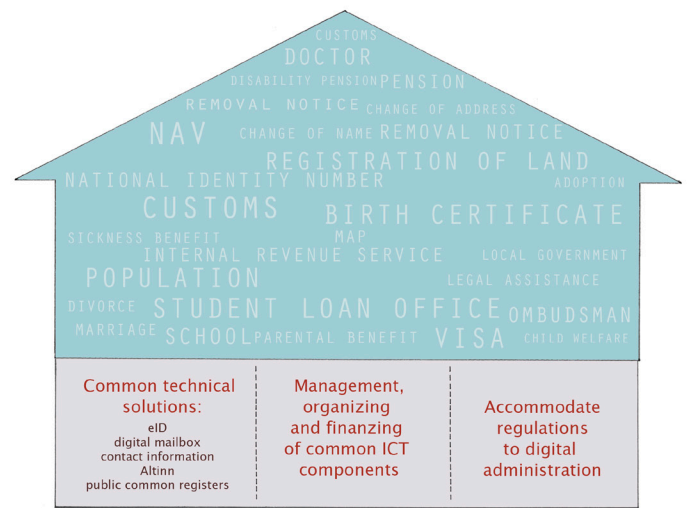
Increased digitization of the public sector also highlights the importance of information

«The users will also benefit from common components, for example in the form of a common login solution for public services and a common digital mailbox for mail from the public sector»

security issues. This applies in particular to the common components and other important public sector systems. Robust operations and handling of the increased use of the solutions must be assured. It is also necessary to make sure information cannot fall into the wrong hands or be manipulated.

Furthermore, there is also a need to adapt the legislation to a digital public service. When the public sector's technology and organization allow for new and more efficient ways to handle public tasks, amendment of relevant legislation should also be considered. Acts and regulations should allow for digital communication with citizens and businesses, make it possible to reuse information and facilitate automated case processing in circumstances where this may be relevant.

## COMMON PREMISES FOR THE DIGITAL CIVIL SERVICE



Security, resilience and privacy protection



### 3.1 Common solution for electronic IDs is a precondition for easy-to-use and secure digital services

An electronic identity (eID) allows for secure login to digital services. The citizens are to use the same login portal regardless of which public service they intend to access. A common technical platform (ID-gateway) is designed to make it possible for citizens to use a range of different eIDs for login to the online services.

MinID (MyID) is public eID solution at a medium-high security level (level 3) which is used by almost 2.7 million citizens. MinID allows login with either PIN codes sent via regular mail or single-use codes sent as an SMS text message to the mobile telephone. MinID provides access to many different state and municipal services, such as the electronic tax return, digital services provided by the Norwegian State Educational Loan Fund (Lånekassen) and electronic applications to upper secondary schools. Access to services with sensitive personal data or which require a signature, however, requires an eID at a high security level (level 4). Such eIDs can only be issued to individuals who appear in person (and not sent via regular mail to their registered address).

Currently, citizens can use eIDs from private suppliers who comply with the required high security level and have established an agreement with the public sector. The Government will provide for use of eIDs from other suppliers in addition to the current ones in connection with public online services. The Government also intends to establish a national ID card with a high security level electronic identity to be issued by the public authorities. In addition to including an electronic identity, the national ID card will function as an official ID and serve as a valid travel document within the Schengen Area.

The ID-gateway will be further developed to also include electronic signatures and encryption. Electronic signatures will facilitate electronic communication within areas which currently require handwritten signatures on paper. Encryption will make sure information sent either from or to the public sector does not fall into the wrong hands.



A socio-economic analysis carried out in 2010 estimated that the socio-economic benefit of electronic IDs will amount to approx. NOK 4 billion over a period of ten years. The anticipated savings will mainly be due to good eID solutions making it possible for state agencies to establish good online services.

Source: Samfunnsøkonomisk analyse av nasjonalt program for eID (Socio-economic analysis of national electronic identity program), Metier 2010

### 3.2 Altinn is a common technical platform for digital services

Altinn is a web portal and a technical platform for submission of digital forms to the public sector. Altinn also provides other digital services, such as transmission of messages and mail from the public sector and access services related to public registers. Currently, 35 government agencies use Altinn for their online services. In addition, three municipalities/counties have established pilot services in Altinn. Altinn has been under development since 2008 to support new services, for example cooperation, distribution and transaction services, sharing of data and processing of sensitive personal data. Due to increased use, however, it has proven challenging to deliver a robust, stable and reliable solution in Altinn for both new and existing services. Altinn must be developed further to handle future challenges and become an important element in connection with the development of digital services.

### 3.3 All citizens and businesses will be issued a secure digital mailbox

The Government intends to offer both citizens and businesses a digital mailbox for secure receipt of digital mail from the State. In contrast to regular e-mail services, the digital mailbox service will be a very secure service. The plan of the Government is to provide for two-way digital communication between citizens and state agencies in the future. The objective is for municipalities to make use of the digital mailbox as well, but this will require coordination on the part of the municipalities. Via the digital mailbox, the users will have access to all decisions and messages from the public sector and be able to maintain an overview of all digital communication with the sector. The users are notified of new letters in the mailbox via SMS text messages or e-mail.



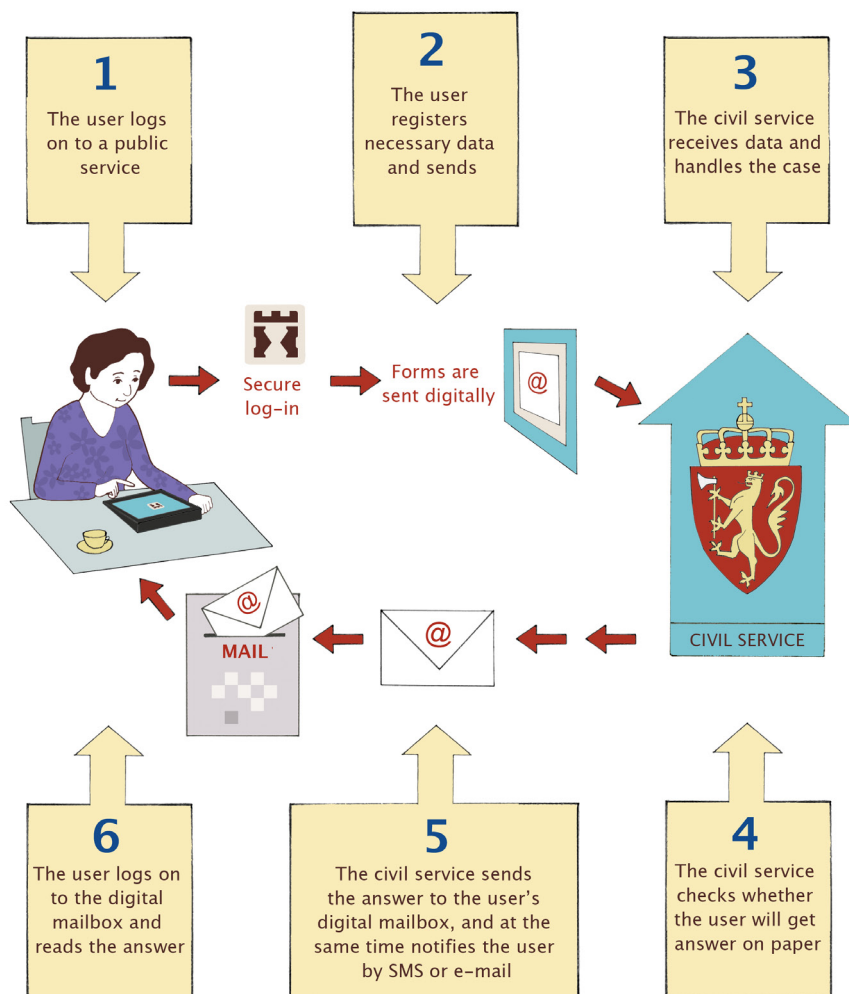
«The users are notified of new letters in the mailbox via SMS text messages or e-mail »

### 3.4 A common scheme will be established for contact information and reservations against digital mail

The Government intends to establish a common scheme that will allow citizens to make reservations against receiving digital mail from the State and any municipalities involved in the digital mail scheme. All state agencies must check for any reservations before digital mail is distributed.

It will be easy for users to register and change their digital reservation, as well as which mobile telephone number and e-mail address to be used for notification purposes. The users' mobile telephone number and e-mail address may also be used for distribution of simple, non-sensitive information, such as reminders of appointments, deadlines and related items. Use of the contact information by municipalities will also be facilitated.

## SECURE DIGITAL TWO-WAY COMMUNICATION WITH THE CIVIL SERVICE



### 3.5 Common public registers are to support the digital public sector

Many public bodies are dependent upon fast and easy access to updated and correct information on people, businesses or properties to be able to execute their duties in a good manner. Such information is registered in the National Population Register, the Central Coordinating Register for Legal Entities and the Norwegian Cadastre, respectively. These three registers constitute important common components.

**The National Population Register** (Folkeregisteret) registers information such as date of birth, marital status, residence permits and permanent address for everyone who currently resides or has resided in Norway. This register is a key component for much of the public sector. The Directorate of Taxes has initiated a project to modernize the Population Register. The technical solution, organization and content of the register will be considered in light of the needs of and opportunities provided by a digital public sector and digital services. The Government will evaluate whether the citizens' digital contact information is to be incorporated into the Population Register at some point.

The purpose of the **Central Coordinating Register for Legal Entities** (Enhetsregisteret) is to harmonize the use of basic data from business and industry, partly to avoid double reporting on the part of the businesses. In addition to this register, the Register of Reporting Obligations of Enterprises (Oppgaverregisteret) also contributes to the coordination effort within the public sector. The Register of Reporting Obligations of Enterprises maintains an updated overview of the reporting obligations of business and industry vis-à-vis the State. The Government will evaluate whether the electronic addresses of businesses shall be incorporated into the basic data registered in the Central Coordinating Register for Legal Entities.

**The Norwegian Cadastre** (Matrikkelen) is a public register of real properties, including information on buildings and addresses. The Cadastre has registered information which is useful for many agencies. It will be important to further develop the cadastre to facilitate use of the information by a digital public sector as well. The ongoing work on the interface between the cadastre and other technical systems will be continued, for example through development of standards which will ensure more efficient communication between different systems.

### Online registration of voluntary undertakings

The objective behind the Voluntary Register (Frivillighetsregisteret) is to improve and simplify the cooperation between voluntary organizations and public authorities by providing an opportunity for the organizations to register information in a single register, and making this information available to other public bodies. The Ministry of Cultural Affairs has initiated a major project for further development of the Voluntary Register. The objective is to ensure further simplification for the organizations, as well as contribute to use of this register by additional public agencies. The project will be considered within the context of ongoing public sector development measures.

The Voluntary Register uses the organization numbers to identify entities to be registered, which entails that entities to be registered in the Voluntary Register also are registered in the Central Coordinating Register for Legal Entities at the same time if not previously registered in the latter. Associations, clubs, limited companies and foundations may register and change information on voluntary undertakings in the Voluntary Register via the electronic signature option in Altinn. More than 25,000 entities are registered in the Voluntary Register.

### **3.6 Common components are to safeguard the overall needs of the public sector**

The Government will improve the coordination of the ministries' work on ICT development within the public sector. The Altinn components, the ID-gateway, the Population Register, the Cadastre and the Central Coordinating Register for Legal Entities constitute central elements of the common digital infrastructure and are important components in connection with the digitization of the entire public sector.

The Government will evaluate the future organization of common ICT components. The Government will also require administrators of common national components to safeguard the overall needs of the public sector.

Over time, it will become necessary to simplify the funding systems for the common national components. The funding scheme is to facilitate increased use of common components and be structured to assure predictability in each fiscal year as regards how much the individual agencies or sub-sectors will be charged.

### **3.7 The State's ICT infrastructure and systems shall be robust and very secure**

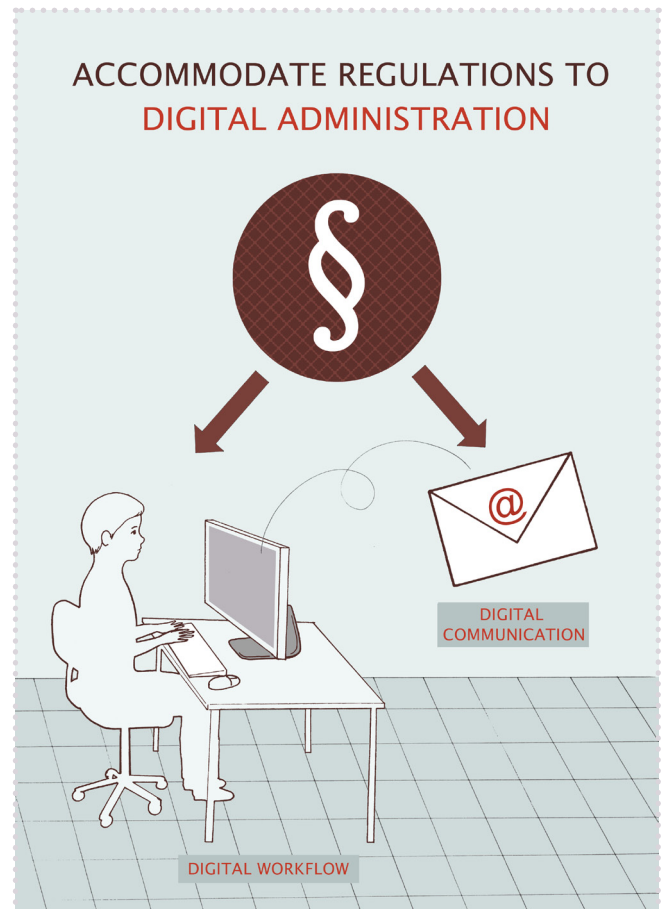
The Government emphasizes good security for the ICT infrastructure and systems. The solutions shall be robust, have a high security level and state agencies shall be able to handle undesirable incidents in an efficient manner. The requirements related to robustness and security will be enforced in particular for systems where errors and failures may entail severe consequences. This will require awareness and competence regarding information security and execution of ICT projects, among other things. The Government emphasizes thorough work on security in connection with the ICT systems. A new edition of the national guidelines for information security will be issued during the first half of 2012. An action plan will also be prepared to help ensure compliance with the guidelines. As part of this effort, it will be evaluated whether state agencies shall be required to use standards for information security. The individual owners of ICT systems are responsible for making sure system security is properly safeguarded.

#### **Information security issues include:**

- Confidentiality: The information is only available to the parties supposed to have access to it
- Integrity: The information is correct and complete
- Accessibility: The information is available at the right time and for the party in need of it.

### 3.8 Legislation is to facilitate digital mail by default

In several circumstances, acts and regulations assume use of digital mail from the public sector to be the exception rather than the general rule. Sections 16 and 27 of the Public Administration Act, for example, stipulate that approval must be obtained specifically for advance notification of and information on administrative decisions in a digital format. In addition, it is stipulated in Section 8 (7) of the Electronic Public Administration Regulations that a paper copy of decisions must be sent to the recipient if he or she has not obtained access to the digital version of the decision within one week. The Government intends to change the legislation to ensure mail from the public sector may be distributed digitally unless the recipient specifically has made a reservation against this. An exemption will be made for citizens who cannot be expected to avail themselves of the right to make a reservation against digital mail, for example due to health-related issues. It is assumed that businesses will not be granted the right to make reservations against digital mail. The Government will address the issues of phase-in and further delimitation of these amendments of acts and regulations following further studies and necessary consultation rounds.



«The Government intends to change the legislation to ensure mail from the public sector may be distributed digitally unless the recipient specifically has made a reservation against this»

### 3.9 Legislation is to be adapted to a digital public sector

There are several provisions in acts and regulations which put limitations on further development of digital services by public agencies. A mapping carried out by Difi in 2011 showed that both cross-sectoral and sector-specific acts and regulations were considered obstacles to a digital public sector. Public agencies would also like to see increased awareness among those responsible for legislation that the wording of the legislation must facilitate digital solutions. The Government will work to ensure regulatory requirements facilitate the digitization initiative. In addition to amendment of existing legislation, proposals for future acts and regulations will be worded to support and facilitate digital services.

### 3.10 Digital reuse of registered information by other public agencies is to be facilitated

The Government will work to ensure acts and regulations facilitate reuse of information submitted to a public agency by other public agencies to a larger extent than is currently the case. It will also be necessary to amend the legislation to allow for more efficient use of information registered in common public registers by the public sector, for example information in the Population Register. Such reuse of information is to safeguard the privacy of each individual. Thus, this presupposes that such use be limited to information which is necessary and appropriate for the intended purposes.



## COMMON INFRASTRUCTURE FOR DIGITAL COMMUNICATION

### Why?

We need to know that you are the person you claim to be ●————→

We need to know whether we can reach you digitally ●————→

We need to know where we can contact you ●————→

We want to notify you via SMS and e-mail ●————→

We need correct data about you ●————→

### What?

eID at the appropriate security level

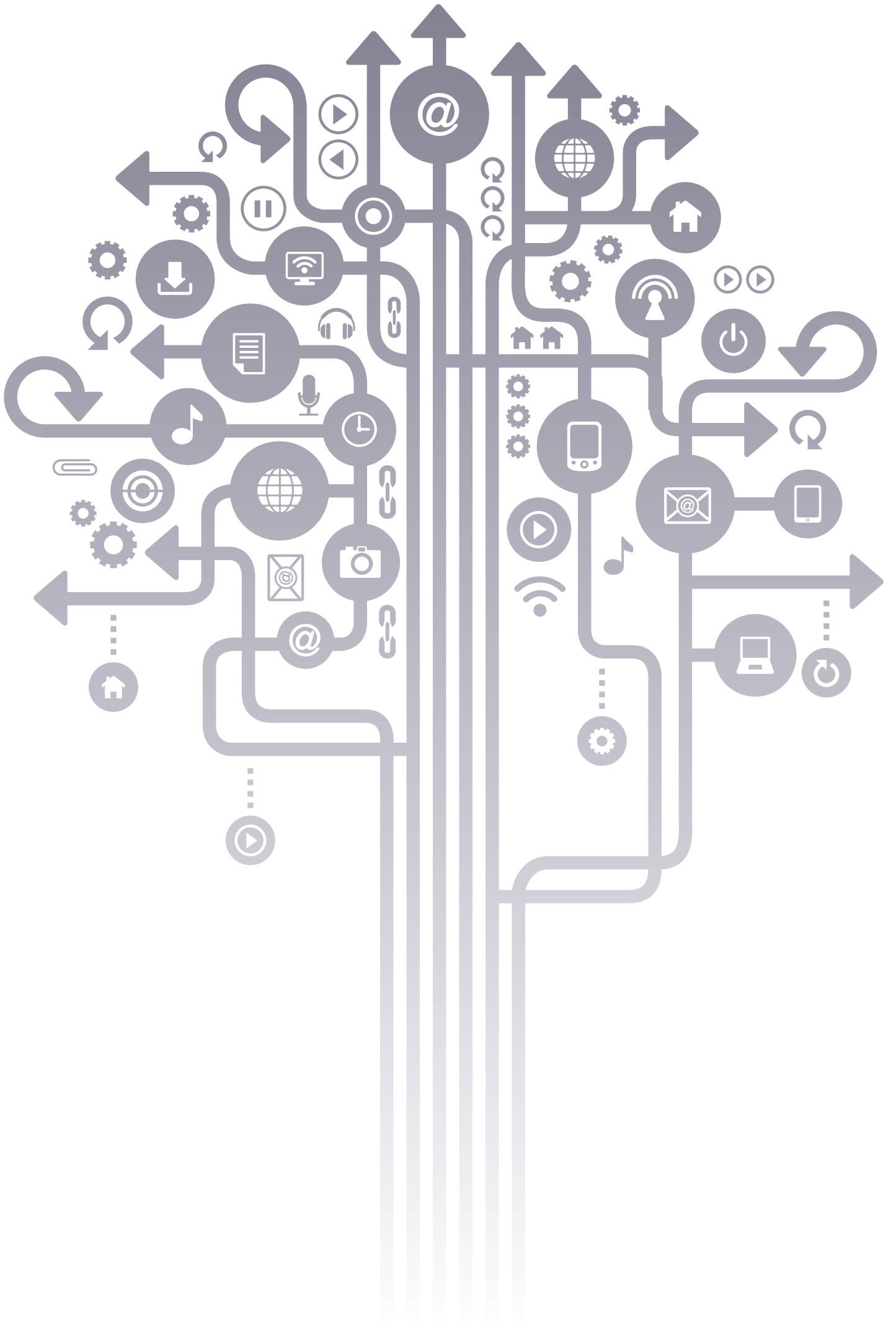
Central Marketing Exclusion Register

Digital mailbox

Digital contact information

Good common registers







## 4 Digitization within selected areas

Digitization may generate noticeable cross-sectoral improvements within the public sector in the coming years. The Government has great ambitions within several of the areas of greatest everyday significance for citizens and businesses. This is a presentation of the Government's plans and objectives within some of these areas: Work and welfare, health and healthcare, police and justice, tax, student loans and grants, and the municipalities. The common elements of this program presented in Chapter 3, for example amendment of legislation and common ICT components, will constitute the basis for future ICT measures within the individual sub-sectors.

#### 4.1 Work and welfare

NAV (the Norwegian Labour and Welfare Service) was established to achieve the objectives work orientation, user orientation and efficiency; i.e. more people working and involved in activities, the public sector simpler for the users and better adapted to their needs, and a unified and efficient public body. These objectives can only be reached through development of new ICT solutions for NAV. The Government has initiated this work.

Over the coming years, NAV is to develop new procedures and system solutions for all governmental services, except for pension services, where new procedures and system solutions have already been introduced. The objective is to develop simple, user-friendly online services available 24/7. Each individual will have easy access to their own cases and which information is registered, be able to add new information, submit applications, and when appropriate, calculate the consequences of their own choices.



The first service based on these principles has already been established for pension services. Web-based solutions have been developed where the user can log in to nav.no and obtain a complete overview of personal information, accrual of public pension benefits and, in many cases, accrual of private pension benefits as well. The users may register information on expected income, retirement age and pension ratio as a percentage in the solutions which have been developed. The users may also generate figures showing how the total income, public pension benefits as well as other pensions and income will be impacted by various different options. When the user is ready, an application may be submitted with a keystroke based on the selected alternatives. In most cases, a decision will be returned in a matter of minutes. Previously, this process could take months. If a person wants to change his or her choice later, the process is repeated with a new alternative, and the decision regarding the changed pension benefits will be sent in the form of digital mail and enter into effect for the pension as of the following month.

Over the course of the coming years, NAV will transfer most services to online solutions which provide the users with an overview of all communication with NAV, as well as self-service solutions whenever appropriate. This will include benefits such as disability pension, sick pay, parental benefits and child benefits. This work is complex and will take time, but the objective is to have completed the entire process by 2020.

#### Your pension

Approximately 60 percent of the pension cases will be processed automatically online in 2012. Previously, users had to wait months for a reply to their pension application, but now it only takes a few minutes.

The new solutions make it possible for users to communicate online with NAV wherever and whenever it suits their own needs. Help for anyone requiring assistance to use the online solutions will be available from user centres.

Web-based services will allow users easy access to all information on matters involving NAV, such as information on case processing, previous decisions, deposits and payments, personal information, etc. To an increasing degree, NAV's partners, such as physicians, employers and public agencies, will be able to communicate digitally with NAV, and any information previously registered with the public sector, will not have to be re-registered.

For NAV, the new solutions will free up considerable resources for services requiring direct dialogue with the users, and within areas where case processing and follow-up are important.

Web pages, forms and letters in the new solutions are to be designed based on the plain language principles (klarsprak.no) to ensure communication with NAV will be simple and easily understandable for the users.

## 4.2 Health and care

Over the coming decades, use of ICT will entail a radical change in the way the health and care services work. Good quality ICT systems may contribute to better treatment, reduced transport of patients, better utilization of resources and improved patient and user involvement. The technology will make all required information available to treating healthcare personnel when such information is needed. The objective is that use of ICT in the health and care sector shall contribute to better quality prevention, treatment, rehabilitation and care.

A large and diversified sector, and especially privacy and security issues, render ICT in the health and care sector a particularly demanding project. An increasing share of the exchange of information within the health and care sector is handled electronically, and new solutions are being implemented.

Electronic prescriptions are being introduced across the country, the national health portal for citizens has been established and work has been initiated on a national patient summary. These are examples of measures which contribute to improved patient safety and better treatment of patients. Another example is the use of ICT to achieve simplification for users and less administration for the public sector. The use of automatic exemption cards illustrates how such issues are to be handled.

### Automatic exemption cards

Automatic exemption cards for health services were introduced in 2010. This scheme safeguards the rights of the users in a simple manner. When users have paid deductibles corresponding to the maximum deductible level 1, an exemption card is issued via mail and any excess amounts automatically reimbursed by HELFO. Thus, users no longer need to save their receipts from healthcare services and then submit an application to NAV for an exemption card.

ICT will make it possible for citizens to become more knowledgeable regarding their own health and to do more in the comfort of their own home. The introduction of internet banking shifted the overview, control and opportunities from the bank to the customers themselves. The Government would like something similar to take place within the health and care sector.

The Government has already introduced the health portal Helsenorge.no, and this portal will be further developed to deliver additional services. Helsenorge.no is to provide digital services for simpler everyday interaction with the healthcare services and to strengthen user involvement. This will allow the patients to become active and involved participants in the planning of their own treatment and follow-up. The portal is to provide information on illnesses and treatment, guidance regarding services in the vicinity of the patients and access to own health-related information. The intention is also that helsenorge.no is to provide good self-service solutions for making appointments with the primary physician, renewing prescriptions, etc.

The objective is to deliver healthcare services as close to the home of the patients or users as possible. IT solutions for patients with chronic obstructive lung disease (COLD), for example,

are being tested to make it possible for such patients to manage their illness on their own and stay at home. A COLD kit makes audio and visual communication possible between the patients and healthcare personnel. With a mobile x-ray unit – Røntgen på hjul – x-ray images can be obtained at a nursing home for online interpretation by a specialist. The patients no longer have to travel to a hospital.

The plan is also to simplify the refund scheme for transport to and from medical treatments. If patients have paid for the transport to and from the treatment session, they can apply for reimbursement of the travel expenses under the current scheme by submitting a reimbursement form together with the valid receipts. Several ton of paperwork is currently processed every month under this scheme. The Government would like to simplify this scheme, for example by developing a solution that will facilitate online submission of claims for reimbursement of travel expenses in connection with treatment sessions. Such a solution will provide better service and save time for both patients and next of kin.

The Government will also contribute to introduction of new welfare technology. New welfare technology may help us manage everyday life better on our own and maintain contact with the outside world in spite of illness and loss of

### **National patient summary**

In certain situations, health personnel need access to vital and critical patient information as quickly as possible. And in such situations, the patient may not always be able to provide such information him or herself. The Government will therefore establish a national patient summary. The patient summary is to include certain core information of relevance for you as a patient, such as medicines (medication card), allergies, illnesses and previous treatments. To ensure patient integrity and privacy will be safeguarded, the information in the patient summary will only be available to health personnel in need of such information to administer treatment and to the patient him or herself. Patients will have to opportunity to access their own patient summary and will also have the option of making a reservation against registration in the patient summary. A logging system will be established to register anyone who accesses the summary. Thus, the patients will be able to determine who has accessed the information in the patient summary.

functions. Such technology may also give next of kin peace of mind and free up time for health personnel. Through welfare technology, together with telemedicine (where the patient and the person who administers the treatment are in two different locations) and new means of cooperation, several important healthcare services may become part of the homecare services or be handled locally instead of at a hospital. Nursing homes and homes for assisted living which have been constructed or modernized with financing through the Norwegian State Housing Bank, shall be prepared for use of welfare technologies and smart building solutions.

Electronic collaboration is key precondition for fulfilling the objective of unified health and care services in keeping with the Coordination Reform which entered into force on 1 January 2012. Health personnel are totally dependent upon having access to information on patients and their treatment, both among health trusts as well as between health trusts, municipalities and the primary physicians. Electronic cooperation within the sector has increased significantly in recent years, but paper still plays a large role in daily operations. Each player is responsible for their own ICT systems, and there are many different systems as well as many different versions of these systems. This

#### **Electronic prescription (e-resept)**

Electronic prescriptions will replace the current paper prescriptions. The term "e-resept" also covers the system for electronic handling of prescriptions. The physician submits the electronic prescription to a central database; Reseptformidleren (the prescription intermediary). The pharmacy or surgical appliance service may then download and dispense the prescription when the user shows up to pick up what the physician has prescribed. The user only needs to state his or her national identity number or name and date of birth. Through use of electronic prescriptions, the practical, medical and financial aspects of prescriptions are handled in a safer, simpler and more efficient manner.

makes cooperation between the players difficult. The Government will evaluate solutions to facilitate more flexible and uniform communication patterns and ensure access to the right information at the right time.

The Government will prepare a Storting White Paper on the health and care services in the digital age.

#### **Helsenett (Norwegian Health Network) – The health and care sector's forum for interaction**

The Health Network is the electronic "highway" for cooperation within the health and care sector. Via the Health Network, the players can exchange information on patients in a secure manner. The Norwegian Health Network will also manage all central common IT solutions within the health and care sector.

The majority of the health trusts, general practitioners and specialists with an agreement are now linked to the Health Network, in addition to 80 percent of the country's municipalities, 450 dental clinics and several pharmacies, occupational health services and others. The objective is for all players within the health and care sector to be linked to the Norwegian Health Network.

### 4.3 Police and justice

ICT has become ever more important for the justice sector to reach its general objectives of reduced crime, increased safety and security, improved efficiency and good legal safeguards. Much has been done to prepare the ground for development of new electronic solutions within the justice sector, including mapping of essential information flows and work processes to ensure efficient targeting of the ICT investments. Much of the existing technology is old, and this prevents efficient electronic collaboration between the police, the courts, the Correctional Service and others. It is therefore necessary to develop new case processing solutions. The Ministry of Justice and Public Security has prepared an ICT strategy for the justice sector for the period 2011-2015, and the emphasis during this period will be on control and coordination of the development across sector segments.

The objective of the Government is for ICT to contribute to efficient collaboration, good information security and good quality information for management and decision purposes within the justice sector in the years ahead. To a greater extent, the information is to be registered and quality assured only once, and will be shared and reused across sub-sectors and agencies. Paper-based schemes for information and case processing will be phased out and electronic solutions implemented instead.

Services will be developed to ensure references to acts and regulations, for example, are structured in an orderly manner and not just included as part of the body text in documents. This may result in more efficient case processing, improve the quality and provide a better basis for analyses and statistics across the sector.

The EFFEKT Program is a key element of the Government's efficiency and user orientation initiative within the immigration administration. The program, which will be more or less completed by the end of 2012, will reduce the resource load per case and result in faster decisions and better information and service vis-à-vis the users. The solutions entail an electronic case flow between the stakeholders within the immigration administration, as well as online solutions for the general public and relevant parties. The share of online applications has increased from 36 percent in 2010 to 59 percent in 2011, corresponding to 173,000 applications submitted online. A separate booking module for making appointments with members of the immigration administration is a time-saver for the applicants as they no longer will have to wait in line. Better planning of the workday will be possible for the immigration administration, and the case processing load may be more evenly distributed.

«Paper-based schemes for information and case processing will be phased out and electronic solutions implemented instead»

The Norwegian Courts Administration has developed a portal for exchange of information between courts and associated players in connection with court cases. This will replace distribution of paper documents via regular mail and use of unsecure e-mail, as well as save both time and money.

The ambition is for even more online services in the future. It is now possible to report certain types of theft to the police via the internet. Online crime tips is also an option for a range of issues, such as racist remarks on the internet, trafficking, sexual exploitation of children, economic crime and international crime. In 2010, 27,900 cases were reported online to the police. In connection with the ongoing study of new systems for criminal cases for the police service, solutions for integrating online reporting with the police's case processing systems are among the solutions being evaluated. This will facilitate more efficiency online reporting of cases as well as increase the share of cases registered by the general public.

Guardianship is an obligation and a power assigned to a person to act on behalf of another person who is without the capacity to dispose of their own funds or bind themselves by an act in law. The Storting (Norwegian Parliament) has adopted a new Guardianship Act. The guardianship scheme is being reformed with the objective of ensuring equal treatment, fast case processing, good dialogue with the individual guardians, secure management of guardianship funds and continuous development of the productivity. The reform of the guardianship scheme also entails a regulatory, organizational, quality and attitude reform. Central elements in connection with the reform is realization of a common case processing solution for both central and local guardianship authorities, a solution for interaction between guardianship authorities and the guardians, as well as a portal for communication with stakeholders in the scheme.



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«In 2010, 27,900 cases were reported online to the police»



#### 4.4 Tax

The Norwegian Tax Administration was one of the first agencies to wholeheartedly embrace ICT to improve the service and efficiency. One example that has impacted most citizens was the pre-completed tax return. The Tax Administration also introduced digital communication as the primary means of communication at an early stage. Recently, it has become mandatory for business persons to submit VAT returns digitally.

Although the Tax Administration has come a long way, ICT functions are being developed further to facilitate support of modern work processes for assessing and collecting taxes and fees. The transition to a service-oriented ICT architecture will gradually result in better and more cost effective services for citizens and businesses alike. Information registered with other players is to be utilized better to reduce the amount of reporting required.

The Government has high ambitions regarding the ongoing work. Initially, new solutions will be developed for electronic tax deduction cards, joint reporting of wage and personnel data and better basic data.

Currently, wage earners receive a paper copy of their tax deduction card from the Tax Administration and must submit the card to their employer themselves. In 2012, the Tax Administration starts development of an electronic tax deduction card. This solution entails that the employers will obtain digital information from the Tax Administration via Altinn, and means a goodbye to the paper-based tax deduction cards. This is a significant simplification on the process for the employers. This also entails that the taxpayers will no longer have to inform the employer of any new or changed tax deduction cards. The plan is to fully implement electronic tax deduction cards by the time tax withholdings is stipulated for 2014.

#### Electronic tax return

All wage earners and pensioners may select all future tax returns and tax settlement notices to be electronic. If so, the tax return will no longer be available on paper, but it will be accessible via [skatteetaten.no](http://skatteetaten.no). The Tax Administration will provide notification via both mobile telephone and e-mail when the tax returns and tax settlement notices become available.

Use of this communications solution prevents unauthorized persons from gaining access to personal information, in addition to it being a more environmentally friendly option. The Tax Administration sends tax returns and tax settlement notices to more than 3.5 million taxpayers every year. It is assumed that about 10.5 million sheets of paper were used for printout of the tax return for 2011.



Employers provide information on employment, wages and tax deductions to the public authorities. The Tax Administration, the Labour and Welfare Service (NAV), Statistics Norway and the Brønnøysund Register Centre now cooperate on development of a common scheme for reporting of employment, wages and tax deductions by the employers. This project is referred to as EDAG (Electronic Dialogue with Employer). EDAG will entail unitization and standardization of various different reporting schemes for the employers. The simplification has been calculated to generate annual savings of at least NOK 500 million for the employers. For the State, EDAG will entail faster access to reliable information. For the individual citizens, it may entail that benefits and services provided by the Labour and Welfare Service will be provided faster and calculated more correctly or that there will be fewer errors in connection with tax assessments. For the Tax Administration, the Labour and Welfare Service and Statistics Norway, the introduction of EDAG will improve both efficiency and work methodology.

Basic data constitutes third party information received by the Tax Administration from the public sector and private sector, for example employers and banks. This information is crucial when the Tax Administration prepares pre-completed tax returns for the taxpayers. Quality basic data also improves the quality of the information received by the Tax Administration via various reporting schemes. In addition, it will become easier to establish new reporting schemes within areas where more control is needed. The IT systems for basic data are outdated, and there is an increasing risk of errors or failures during preparation of the tax returns. The MAG Project (Modernization of Basic Data) will be used by the Tax Administration to develop a new system solution for basic data. This will improve the quality of the tax assessments and constitute a basis for better control within areas where the reporting is inadequate. The risk of operational upsets during the preparation of tax returns will also be reduced. For the individual citizens, this will result in less need of correcting the pre-completed tax return and fewer errors in connection with the tax assessment. These improvements will also strengthen the trust in the tax regime.

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«This means goodbye  
to the paper-based tax  
deduction cards»

#### 4.5 Student loans and grants

The Norwegian State Educational Loan Fund is one of the leading state agencies in use of ICT to provide quality digital services to its customers as well as to improve the efficiency of its own operations. Digitization and automation measures have reduced the processing time from an average of 16 days down to 8 days. Since 2004, the State Educational Loan Fund has saved approximately 60 man-years and the operating costs have been reduced by almost 20 percent. The telephone service has also been improved.

The ambition of the State Educational Loan Fund is for all communication with the agency to be handled digitally to eliminate the need for paper. This applies to applications for student grants, applications during the repayment phase, submission of required documentation in connection with such applications as well as repayment of student loans. Implementation of the digital by default scheme will also result in a simpler and more complete overview of the customers' loans, as login to only one website is needed to obtain access to their own customer data. This will make it easier for the customers to safeguard their own rights, duties and privacy issues.

However, customers of the State Educational Loan Fund will still have to use paper documents in certain cases, including submission of a declaration from a physician if they want to apply for an illness grant. This may be handled digitally when use of sufficiently secure electronic IDs with the necessary functionality become established among the citizens.

#### 4.6 Municipalities

The municipal sector is responsible for a large share of the services delivered by the public sector to citizens and businesses. Thus, the municipal sector constitutes an important arena for digitization of the public sector.

Exploitation of technological possibilities is well under way in some municipalities and counties. The City of Bergen, for example, was a pioneer in terms of phase-in of digital messages to its citizens at the expense of traditional letters. Several municipalities provide for digital reporting of faulty street lights, potholes in the road, tagging, etc. by its citizens. The Municipality of Sørumsund has developed an app for use with smartphones for providing updated municipal information to its citizens. The Municipality of Kristiansand uses SMS text messages to inform residents of snow clearing operations along relevant streets with tips on where to park cars during the operations.

### Digital plandialog

*Digital plandialog* (Digital Planning Dialogue) facilitates digital communication with the municipalities by parties affected by area plans. Digital plandialog may strengthen the democratic process through improved transparency and access to information in planning cases, increased access to documentation, opportunities for greater citizen involvement, etc. This project may also generate a better basis for making decisions, which may result in fewer conflicts and faster case processing.

The Digital plandialog project was initially a collaboration between 12 municipalities in the County of Vestfold, and is now used actively in several of the municipalities in the county. The county municipalities and county governors of Oppland and Hedmark have been pushing for use of Digital plandialog by all municipalities.

There is, however, a large, unexploited potential for increased digitization within the municipal sector. The eMunicipality Survey carried out by the Norwegian Association of Local and Regional Authorities (KS) in 2011, showed that only a minority of the municipalities utilize digital channels for dialogue with their citizens to any great extent, with the exception of e-mails.

Collaboration is important to ensure good ICT progress within the municipal sector. As the municipalities are to handle the same tasks and provide the same services to a large extent, there should be more extensive collaboration on common solutions for the municipalities. But it will also be necessary to facilitate better utilization of the fundamental digital building blocks being developed within the public sector, such as the Population Register, eIDs and digital mailboxes, by the municipalities.

The Government will evaluate how to contribute to a development where municipal digitization to a greater extent becomes a joint effort among the municipalities. The municipalities should agree on common solutions, which entails development of an architecture and standards for a common digitization platform. Organization, control and financing schemes to support the work on common solutions should also be established.

The Government and the municipal sector are engaged in a dialogue on how to organize the ICT collaboration, both internally within the municipal sector and between the municipalities and the State. As a point of departure, the Government is of the opinion that all public agencies should be able to utilize the common components. In practical terms, this entails that the municipalities should coordinate their needs and act as one body vis-à-vis the agencies delivering common components.

A more unified approach regarding ICT in the municipal sector will also facilitate better coordination vis-à-vis the State. Such coordination is necessary, for example, in cases where the State owns ICT solutions used by the municipal sector. Examples include the Norwegian Health Network for health matters, Bygg-Søk for planning and construction matters, and FEIDE for identity management within the field of education. Optimum utilization of such governmental solutions by the municipalities will require better cooperation across the administration levels.

### **The State provides common case processing solutions across administration levels**

The Norwegian Agricultural Authority (SLF) is in the process of developing a common case processing solution for environmental grants within agriculture, and this solution will be used by both municipalities, county governors and SLF during processing and distribution of such grants. The solution includes a common core archive for all levels, integration with the map solutions used at the Norwegian Forest and Landscape Institute and use of Altinn for all digital dialogue with farmers and foresters. This will be a modular solution which gradually will be expanded to cover more areas.

## Examples of digitization measures in the public sector

### **Digital solutions will make it simpler to sell properties**

In connection with sales of houses and holiday homes, many official documents must be obtained and a considerable amount of paperwork will be required. Private individuals may advertise their own property for sale, but many are reluctant because they have no overview of the process and any necessary documents. The authorities have initiated a study of how property information may become more easily accessible, in a digital format, for both private citizens and businesses.

### **Building permit applications will be processed faster**

Many new residences will be needed in the years to come. Processing of construction matters takes such a long time that it becomes impossible to construct residences fast enough. It is also necessary to ensure efficient case processing in the public sector to make sure businesses do not incur costs due to delays and unpredictable consideration of building permit applications.

The Government will therefore make building matter processing more efficient, for example through simpler construction regulations and less bureaucracy. In addition, the State will contribute to increased use of digital tool in connection with processing of building matters. The Directorate for Building Quality is in the process of developing the solution ByggSøk, which will be available for use by municipalities and other players.

### **Online publication of state announcements**

The Brønnøysund Register Centre is currently obliged to publish a range of registered information in paper editions of newspapers. This applies to notices of adjudication, opening of debt negotiations, compulsory dissolution, etc. These announcements are very costly to the Brønnøysund Register Centre at the same time as the agency's website has databases where the general public easily – and free of charge – has access to this information. In 2011, the announcement costs amounted to NOK 51 million.

The announcements may be of great economic significance for some. Rights may end being waived if not acted upon by a deadline stipulated in the announcement. For professional parties, announcement in the Brønnøysund Register Centre's digital announcement publication is probably sufficient. But when it comes to many small businesses and most private persons, however, it is more uncertain whether a digital announcement by the Brønnøysund Register Centre will be registered. Such announcements can now be noted by randomly looking through the local newspaper, for example. The Government will review the provisions requiring announcements to be published in paper editions of newspapers. Subsequently, the Government will evaluate whether paper-based announcements may be terminated or continued in an abbreviated version with reference to more detailed information on the internet. The announcements will be made available for reuse in a machine-readable format.

**Information on overdue annual motor vehicle tax will be accessible online**

In order for a vehicle to be registered or re-registered, any overdue motor vehicle tax must be paid. The Customs and Excise Authorities are in the process of developing a solution which will allow users to obtain information on overdue motor vehicle tax for individual motor vehicles via [www.toll.no](http://www.toll.no). This will allow both buyers and sellers of motor vehicles fast and easy access to information by entering the registration number of the vehicle. This will be a practical service for the users at the same time as it prevents the agency from spending a large amount of resources on this type of inquiries.

**Control stickers are no longer necessary on motor vehicles**

Currently, a control sticker must be attached to the car's license plate to document payment of the motor vehicle tax. The sticker is proof that use of the motor vehicle is legal. The Norwegian Public Roads Administration has developed and started using new control methods requiring fewer resources to identify motor vehicles without the necessary permit to operate in traffic. These methods were not available when the sticker scheme was introduced in 1993. Thus, the Government intends to discontinue this scheme. This will contribute to a more user-friendly service and efficient use of resources.

**BarentsWatch will be the source of information on coastal and ocean areas**

BarentsWatch is to become a comprehensive monitoring and information system which will make information and mapping services more easily available for the authorities, policy makers and general users.

BarentsWatch is an information portal which will be available for everyone. The portal will be established in 2012 and will collect and make available data which currently is spread across a large number of sources, in time from all 27 state agencies and research institutions which now are part of the project. Through use of the most recent technical innovations, BarentsWatch will provide access to a unique compilation of knowledge and activities in our maritime areas, distribute an improved factual basis and a more comprehensive understanding of the activities and conditions in the coastal and ocean areas. The BarentsWatch portal will cover the following topics: 1) Climate and the environment, 2) Maritime transport, 3) Marine resources, fisheries and aquaculture, 4) the petroleum activities and 5) Enforcement of sovereignty/law of the sea.

Over time, the ambition is also to provide public authorities with maritime responsibilities a closed system with a common understanding of the situation for efficient operational response. So far, two services for the closed sections are under development and will be ready sometime in 2012, of which one service automatically will feed data from the Norwegian National Coastal Administration to the Joint Rescue Coordination Service's systems for use during search and rescue operations. This is currently data which must be searched for and registered manually. This internal agency function of the BarentsWatch portal may gradually be developed further in the years to come.



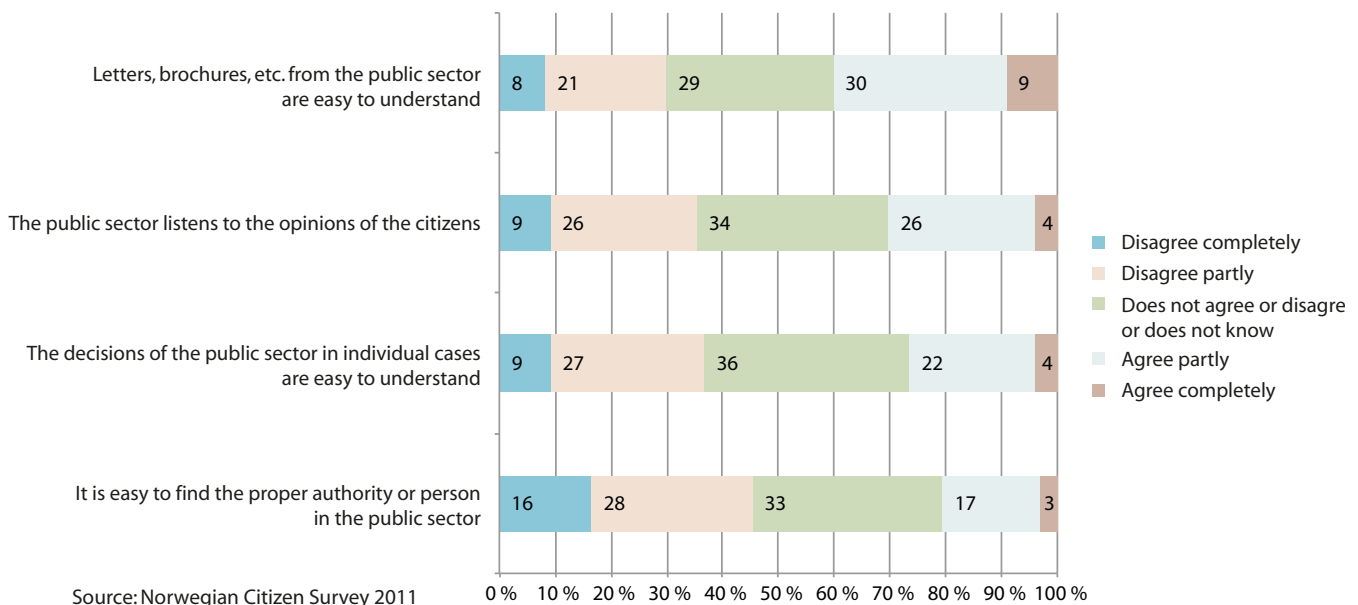
## 5 Positive encounter with public services

Digitization will ensure easier and faster user interaction with the public sector. This will make it easier to coordinate information and deliver unified services. The users will no longer have to register information several times, for example. In addition, digital services will be available 24/7, and users can access the services via their mobile telephone or PC at home. The users will also benefit from faster replies.

Contact with the users is to be fast, understandable and carried out in a respectful manner. In some cases, a positive encounter with the public sector will entail users not having to actively safeguard their rights and obligations. An example of this is automatic payment of child benefits in most cases. Another example is the introduction of electronic health exemption cards, following which it is no longer necessary to apply for reimbursements when the users have paid up to the upper limit.

Democratic control and involvement in social developments presupposes an open public sector providing access to information, sharing its knowledge with others and listening to the viewpoints of those affected by the decisions.

The State's communication is to be characterized by openness. State agencies are to engage in an active dialogue with citizens regarding development of services and policy making. Information regarding what is going on within the public sector shall be readily available for all and in a form that most people can understand and use. The experience of the citizens in dealing with the public sector shall be emphasized – from simple questions via telephone to more long-term and comprehensive services. The public sector is to base the development of public services on the needs and desires of the users. In this way, the public sector will focus on the user.



### Use of social media within the public sector

The public sector has to reach many different groups, at times with somewhat complicated messages. Social media may be used to reach new target audiences, communicate in new ways, obtain faster response from users and the general public and to present a different side of public agencies than in the traditional media. The Central Mobile Police Service (UP), for example, found that it was able to reach more young drivers via Facebook, where it has 38,000 followers, than via traditional communication channels. Social media may also be utilized as an internal work tool within the organizations. There have also been some web-based public consultation rounds via social media, for example regarding the National Health and Care Services Plan (Storting White Paper 16 (2010-2011)). Mapping by Difi in 2011 showed that many directorates and administrative bodies are in the process of establishing strategies and guidelines for use of social media.



### 5.1 The State is to offer electronic invoicing

All interested citizens will be offered invoicing by the State via internet banking services. All relevant state agencies will therefore offer electronic invoicing. To the extent possible, state agencies will also offer automatic withholdings for appropriate services. Provisions should be made to avoid citizens having to establish agreements for electronic invoicing with each individual state agency. In time electronic invoicing should be the standard invoicing method used by the State and paper invoices become an option available only by request. The Government will facilitate electronic invoicing by default by the State for citizens with an internet banking account. The Government will work with the banks to establish electronic invoicing as the standard option for the State.

#### Universal design of ICT within the central government

Universal ICT design will mean that the ICT solutions can be used by as many as possible. By aiming for one solution which can be used by everyone, the need for expensive customization is reduced and the opportunity for everyone to become involved in society on equal terms is improved. Requirements relating to universal design have already been partially incorporated into Difi's quality criteria for public websites.

### 5.2 Citizens will receive necessary assistance to find the proper authorities

Navigation within the public sector and finding the correct digital service are to be simple for both citizens and businesses. The public sector is to be structured in an orderly manner and terms and phrases used about the sector must make it easy for people to understand which public agency they are dealing with. It is the responsibility of the individual agencies to provide the necessary guidance for the users. If a user needs to interact with many different public agencies during an online session, the initial public agency is to provide guidance regarding the entire process and inform the user of how to proceed.

Whenever appropriate, state agencies are to coordinate their information with the information issued by other relevant state agencies to ensure uniform information is provided to the users. Difi will provide a general online wizard function which will ensure easier access to information and services from public agencies across sectors and administration levels. The wizard function will help ensure users can and will use the digital services in an efficient manner.



### Electronic registration of properties

This concerns official registration of mortgages and charges as well as agreements regarding rights and obligations between parties in connection with purchases of fixed properties, etc. Currently, users must submit paper documents to the Norwegian Mapping Authority when they buy properties. The Norwegian Mapping Authority has initiated a pilot project for assessment of an electronic registration solution. The pilot solution has gradually been implemented in recent years and is considered a success, and there is considerable interest in electronic registration among banks and real estate agents. An analysis of potential socio-economic benefits and savings carried out by the Norwegian Government Agency for Financial Management (DFØ) et al. in 2008, showed that increased use of electronic registration will result in considerable savings amounting to a net present value of minimum NOK 400 million (NOK07).

### 5.3 User involvement in development of the digital public sector of the future

The State will ask the users for their opinion on the quality and availability of the state services on a regular basis. State agencies will publish the results of the user surveys on special websites. The data will be made available in machine-readable formats to facilitate reuse of the information in other contexts. Various different users will be involved in the planning stages during development of new and existing digital solutions.



#### Norwegian Citizen Survey

In the Norwegian Citizen Survey, a representative sample of the citizens answer questions regarding public services. Through this survey, public agencies obtain more detailed information on the quality of the services from the public sector as perceived by the users. This information allows for further development of the services based on the needs and desires of the users. The Government wants to carry out the Norwegian Citizen Survey on a regular basis.

#### The State regularly evaluates the quality of public websites

Difi works to improve the quality of municipal and state websites. A central element in this work is regular assessments of the quality of approximately 700 public websites.

The quality assessments provide important information on the status and development of good, public websites. The quality assessments take place on a regular basis and are followed up with an annual conference and a professional network.

### Plain language in the Norwegian Directorate of Immigration

#### BEFORE

Reference person  
residing in Norway



#### NOW

The person you apply  
for family immigration with

Your request for  
postponement of execution  
has not been granted



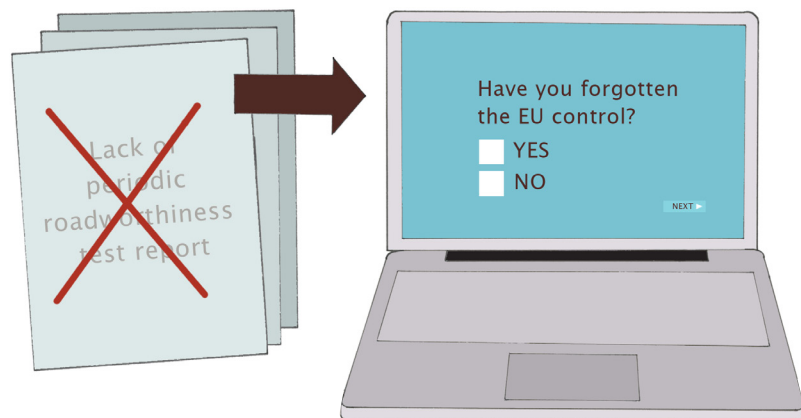
You are not permitted to stay in Norway  
during processing of your appeal

#### 5.4 The public sector is to use plain and understandable language

To succeed with a good, digital public sector, the digital self-service solutions must be understandable and easy to use. The goal is user-friendly online solutions with plain and understandable language.

1 of 3 Norwegians considers it difficult to complete public forms. State agencies are to use correct, good and plain language understandable by everyone. Public officials will be offered relevant courses, and linguistic assistance will be made available to help prepare letters and information using plain and understandable language. Special measures will be aimed at department heads. Methodology will also be developed for testing letters, forms and online solutions on relevant users before distribution or implementation.

The wording of acts and regulations is often difficult to understand for those having to comply with such regulatory requirements. If legislation is rendered in more easily understandable language, it will be easier for citizens and businesses to understand which rules they have to abide by. This may result in less use of resources within both the private and the public sector and strengthen the legal protection of citizens and businesses. Legislation of particular importance for citizens will be identified as part of this process. It will then be determined if and how provisions may be worded in more easily understandable language. It will also be evaluated how to make linguistic aspects a natural element of the work on new acts and regulations.



#### Plain language by the Norwegian Public Roads Administration

After the Norwegian Public Roads Administration changed the text of the letter regarding periodic vehicle inspections distributed to 750,000 recipients every year, the amount of inquiries regarding the inspection due to problems understanding the letter was reduced by 40 percent. The survey also showed that the average time spent on reading the letter was reduced by 40 percent.

Source: Norwegian Public Roads Administration

#### Plain legislative language

Close to 90 percent of the citizens are of the opinion that they as well as the State would save both time and money if the wording of acts and regulations were easier to understand.

Source: Synovate for Difi, 2011

### **5.5 Simplification for business and industry**

The Government has an ambitious goal for simplification aimed at business and industry. By the end of 2015, business expenses are to be reduced by NOK 10 billion. This is very ambitious and will require close collaboration between the public sector and business and industry. A transition to electronic reporting and development of good electronic services for business and industry are among the most important contributions in this regard. Coordination of regulatory requirements will also be an important contribution towards simplification of everyday operations for businesses. This will ensure businesses only have to report information once. Whether certain existing rules and tasks should be changed will also be evaluated. New proposals for rules and measures must also be considered in light of the Government's simplification objective and consideration for small and medium-sized companies.

### **5.6 The public sector is to provide good information on case procedures, appeals and time needed for case processing**

All communication with citizens is to be easy to understand in terms of subject matter, what the decision entails in practice, the grounds for the decision, where to find more information, and where and how to appeal the decision. The 2010 Norwegian Citizen Survey showed that a relatively large share of the population find it difficult to lodge an appeal with a state agency. The Government will therefore map the information on appeal procedures provided by state agencies. The Government will also map the quality of state agencies' information to the users regarding waiting periods and time needed for case processing.

### **The public sector listens to business and industry**

A good dialogue with businesses and trade organizations is essential to achieve a successful simplification initiative. Continuous contact with business and industry, via both trade organizations and individual businesses, will therefore be greatly emphasized. Input regarding simplification measures has been submitted via the website [www.enklerinregler.no](http://www.enklerinregler.no).

User involvement is important for the work on further development of Altinn. User groups are consulted in an early phase of the work on identifying new services or areas where Altinn may prove useful.

### 5.7 Public data is to be accessible and available for use in new contexts

The Government will improve the accessibility to public information in order to facilitate reuse in new ways and in new contexts. By making data accessible, businesses and the private sector are invited to take part in the work on providing good public services to the citizens and further development of such services. The Norwegian Meteorological Institute (DNMI), for example, has made data accessible for use in services such as apps for mobile telephones or on websites. Making data accessible in suitable formats and in a cost efficient manner will be easier and less costly if this effort is incorporated into the ministries' development plans from the beginning and become an integrated part of a system to avoid the need for expensive further developed afterwards. This will also support integrated unified online services which the public sector may deliver to the general public in the future, such as self-service solutions where technical data may support the various available options.



#### Yr.no

Yr.no is the largest weather service in Norway and provides weather reports for more than nine million locations across the world via both websites and apps for mobile telephones. 56 percent of the Norwegian users of the internet visit yr.no weekly (Synnovate, December 2011). Yr.no is a collaboration between the Norwegian Meteorological Institute (DNMI) and the Norwegian Broadcasting Corporation (NRK) and is based on data made available for unlimited use by the institute.

#### Data.norge.no

Difi's work on operation and further development of the website data.norge.no, and associated services, constitute an important element in the Government's strategy for making public data accessible. Data.norge.no is a website where public agencies may register data sets made available for further use.



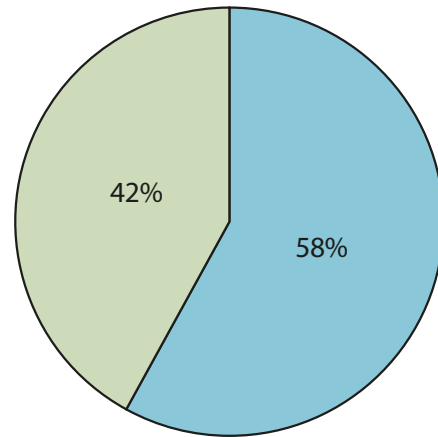
## 6 Better execution and use of resources within the public sector

Digitization of the public sector may both improve the sector and make it more efficient. Increased user accessibility and good digital services will improve the quality of the information received. Digitization will also make it possible to automate processes previously handled manually. This will save time both for the public sector and for the users. It is the experience of both the Tax Administration and the State Educational Loan Fund, for example, that digitization of processes reduces the internal costs at the same time as users benefit from simplified and faster services.



Public agencies are responsible for a range of functions. Some of these functions are specific to an individual agency, but many functions are essentially the same across agencies and sub-sectors. Money may be saved simply through central management and coordination of the agencies to make sure the wheel will not have to be reinvented over and over again. Some tasks may be handled more efficiently in common rather than by each agency having a separate solution. However, the potential efficiency gains through standardization, coordination or centralization must be evaluated in relation to the need for flexible and customized solutions for the individual agencies.

The digitization work must also take into account the objective of distributing skill-intensive jobs across the country and avoiding centralization of governmental jobs. However, in some cases centralization of functions allow for development of centres of expertise and establishment of skill-intensive jobs outside the major urban areas.



■ I feel that the public sector wastes resources

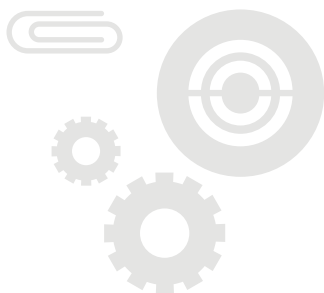
■ I feel that the public sector does not waste resources

Source: 2011 Norwegian Citizen Survey

Responsibility for development and digitization is assigned to the individual agency and manager within the public sector. This requires strategic competence regarding ICT-based development at both the ministry and agency level. Continuous training of each individual employee is important for further development of the public sector and to ensure quality services for the users.

«Some tasks may be handled more efficiently in common rather than by each agency having a separate solution»





### 6.1 More efficient ICT operations within the state sector

Although different state agencies may have various different ICT systems to handle agency-specific tasks, some of these systems and functions are the same across all sub-sectors and agencies. Thus, it may be beneficial to acquire such common systems for the entire state sector and let a common agency resolve some of the cross-sectoral ICT functions. The Government is therefore reviewing and evaluating the current administrative support functions for ICT within the State and whether establishment of common support functions may prove to be more efficient. In connection with restoration of the Government Quarter, the Government will also evaluate how administrative support functions within the ministries may be organized as efficiently as possible.

#### Norwegian Government Agency for Financial Management (DFØ)

DFØ is the State's expert agency for financial and enterprise management. One of the tasks assigned DFØ is to realize economies of scale for the State by providing standardized system solutions for budgeting and financial reporting, as well as wage and personnel administration. It is calculated that DFØ's establishment of common services for wages and financial reporting has resulted in annual savings well in advance of NOK 100 million. DFØ is used by a majority of the state agencies. Additional cost reductions may be possible if more state agencies make use of DFØ's common services. But the consideration for economies of scale must be balanced with the individual needs of the customers and their right to use the wage and accounting systems they find most suitable. DFØ is attempting to accommodate both economies of scale and individual needs through matching the services to the different customer groups.

#### Initial online examination for military service

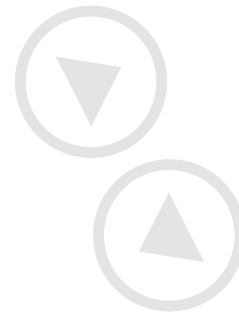
Previously, the Armed Forces required draftees to report in person for the first part of the examination for military service. This initial session can now be handled online. This saves a lot of resources for the Armed Forces, and the draftees save time.

## 6.2 Digital exchange of documents between agencies

When state agencies are to exchange documents, such documents are often printed and sent via regular mail or couriers. The Government intends for digital by default to also apply internally within the State administration. This will save resources currently spent on scanning, postage and manual work, time spent waiting for the mail to arrive and be more environmentally friendly. Thus, the objective of the Government is for all state agencies to establish a digital system for secure internal exchange of documents. This will require use of so-called enterprise certificates, which are electronic IDs for enterprises. In practice, this will entail digital exchange of documents in a secure manner between enterprises/agencies. Further work is required to determine which categories of documents will be exchanged digitally, and what type of scheme for digital exchange of documents will be needed. The State will also make sure it will be easy for municipalities to link up to and become part of this infrastructure over time. This presupposes a coordinated municipal sector, however.

## 6.3 Electronic invoicing by suppliers vis-à-vis the State

The State receives approximately 4.5 million invoices from its suppliers every year. As much as 90 percent of these invoices are submitted on paper and then scanned. This means that handling of invoices is a very time consuming process. If invoices are sent electronically, directly from the sender's ICT system to the recipient's ICT system, both parties will avoid manual processing and save a lot of money. The Government is in the process of making a general transition to electronic invoicing across the entire public sector. As of 1 July 2012, the State will require electronic invoicing for all new contracts entered into with suppliers. Small suppliers may use web-based solutions (web invoice portals) to submit invoices to state agencies.



The socio-economic benefit of introducing electronic invoicing based on a standard format for all incoming invoices to state agencies, is estimated to amount to NOK 1.9 billion over 15 years according to a report prepared by the Ministry of Government Administration and Reform (FAD) in 2011. This is because the process will be less time-consuming for the State, as the recipient of the invoices, and will save time and money spent on postage for the invoicing parties. The consultancy company Metier carried out a similar analysis for the municipal sector in 2011. This report indicated that the introduction of electronic invoicing within the municipal sector may result in savings of up to NOK 1.4 billion over 15 years.

Sources: "Samfunnsøkonomisk analyse av å innføre elektronisk faktura (e-faktura) i staten" (Socio-economic benefit of introducing electronic invoicing (e-invoice) for the State), Ministry of Government Administration, Reform and Church Affairs, 2011

"Samfunnsøkonomisk analyse: Innføring av elektronisk faktura i kommunal sektor" (Socio-economic analysis: Introduction of electronic invoicing in municipal sector), Metier, 2011

#### **6.4 Coordination of state procurements whenever beneficial**

The public sector buys goods and services amounting to approximately NOK 400 billion every year. The State is responsible for about half of this. The handling of these procurement processes is of great significance for both the costs to the State and for the markets in which the State is a buyer. Coordination of governmental procurements has been the practice for a long time, but primarily in the form of coordination within sub-sectors. If the State coordinates its procurements and increases the use of digital tools during procurement processes, the result may be lower prices, procurement of better products and more efficient organization. Helseforetakenes Innkjøpsservice (HINAS), for example, has estimated savings in the order of 30 percent through common framework agreements for medical supplies and about 20 percent through common framework agreements for support services. To strengthen competition and innovation, however, it will also be important to ensure smaller businesses are able to compete for state procurements.

The Government will review and evaluate different models for coordination and organization of the State's procurement processes. Furthermore, the Government will evaluate increased use of digital solutions as a measure to achieve better and more efficient procurement processes.

#### **6.5 Simpler and more efficient public procurement processes**

The Office of the Auditor General has identified breaches of procurement regulations for many years. One of the reasons is that regulatory requirements are complicated. It is therefore necessary to evaluate whether regulatory requirements should be simplified. In December 2011, the EU Commission presented proposals for new directives intended to be more flexible and better adapted to new challenges. In connection with implementation of these directives, the Government will evaluate whether to simplify all Norwegian procurement regulations.

Furthermore, mapping of the public sector's procurement practice shows that needs are not analysed well enough prior to the procurement process itself. More thorough analysis of the needs and evaluation of factors such as environmental consequences and the lifetime costs of the procurements, the so-called lifecycle costs, may result in both savings and better quality procurements. The Government will carry out pilot projects that will emphasize thorough work and analysis of needs prior to the procurement process. The Government also works actively to ensure a transition to digital procurement processes and e-trade as a measure to improve the efficiency.

«The State receives approximately 4.5 million invoices from its suppliers every year. As much as 90 percent of these invoices are submitted on paper and then scanned»

## 6.6 Further development and coordination of competence enhancement within the State

State agencies annually spend about NOK 2 billion on competence enhancements measures such as courses, seminars and conferences. More than half of the training activities are either of a common and inter-disciplinary nature or involve subjects of relevance for several agencies. The Government will therefore further develop the central work on digital training programs, so-called e-education programs, for common topics across the public sector.

The ministries are to serve as active drivers for development and digitization of the public sector. Many challenges related to development and competence are similar for all ministries. How to achieve efficiency, improved quality and better results for the ministries through stronger coordination of and a unified approach to competence enhancement measures should therefore be evaluated. In particular, enhancement of the digital competence is called for. It is also important to strengthen the training and development of competence within areas such as administrative knowledge, analysis, as well as organization, management and leadership.

## 6.7 Information on quality and results is to be accessible

Norway is among the countries which spend the most resources on public services. Plenty of useful information on both quality, results and use of resources has gradually been made available within some of the large and important sub-sectors. Through the StatRes Project (State Resource Use and Results), the State has generated statistics on the State's use of resources and the results generated by the resources in terms of activities and services for the various state agencies. The Government will continue to document the quality of the services delivered to its citizens to make it easier to analyse the benefits gained from use of the resources needed to provide such services. This will ensure better information to the owners regarding how best to organize the activities and services as well as better information to the users and general public regarding services delivered by the public sector.



## Common requirements for ICT-related investments within the State

- Common requirements have been stipulated for all ICT-related investments by the State in order to ensure better and more unified digital services. These comprise requirements related to coordination and control (especially during the planning stages), use of general architecture principles, administrative standards and common components, requirements related to information security and requirements to facilitate reuse of public information.
- Difi has established [prosjektveiviseren.no](https://prosjektveiviseren.no), which provides online guidance for planning and realization of ICT-related investments within the public sector. The State's common ICT requirements are also available via this website. Difi will develop Prosjektveiviseren further with stronger recommendations regarding structuring of phases, decision milestones and associated templates.
- Investments expected to cost in excess of NOK 750 million will be subjected to external quality assurance. The quality assurance will be implemented during two phases of the project planning (KS1 and KS2).

### 6.8 The benefits gained from the measures in the eGovernment Program are to be realized

The introduction of ICT solutions is potentially very profitable for the society at large, because the gains far exceed the costs. However, this potential is not always realized. Financing and realization of project gains across sectors and agency limits are especially demanding, because costs are incurred in one agency, for example, while the gains are realized in many agencies or at different times in the sub-sectors.

The Government will emphasize preparation of good plans for realizing any gains already during planning of the ICT projects in the state sector as well as follow-up of the plans after the ICT solutions have been implemented. Such gains may be in the form of reduced costs or improved public service quality. Plans should be prepared for measurement and realization of gains in both circumstances. When gains are to be realized in the form of reduced costs, it must be determined where these gains are to be applied.

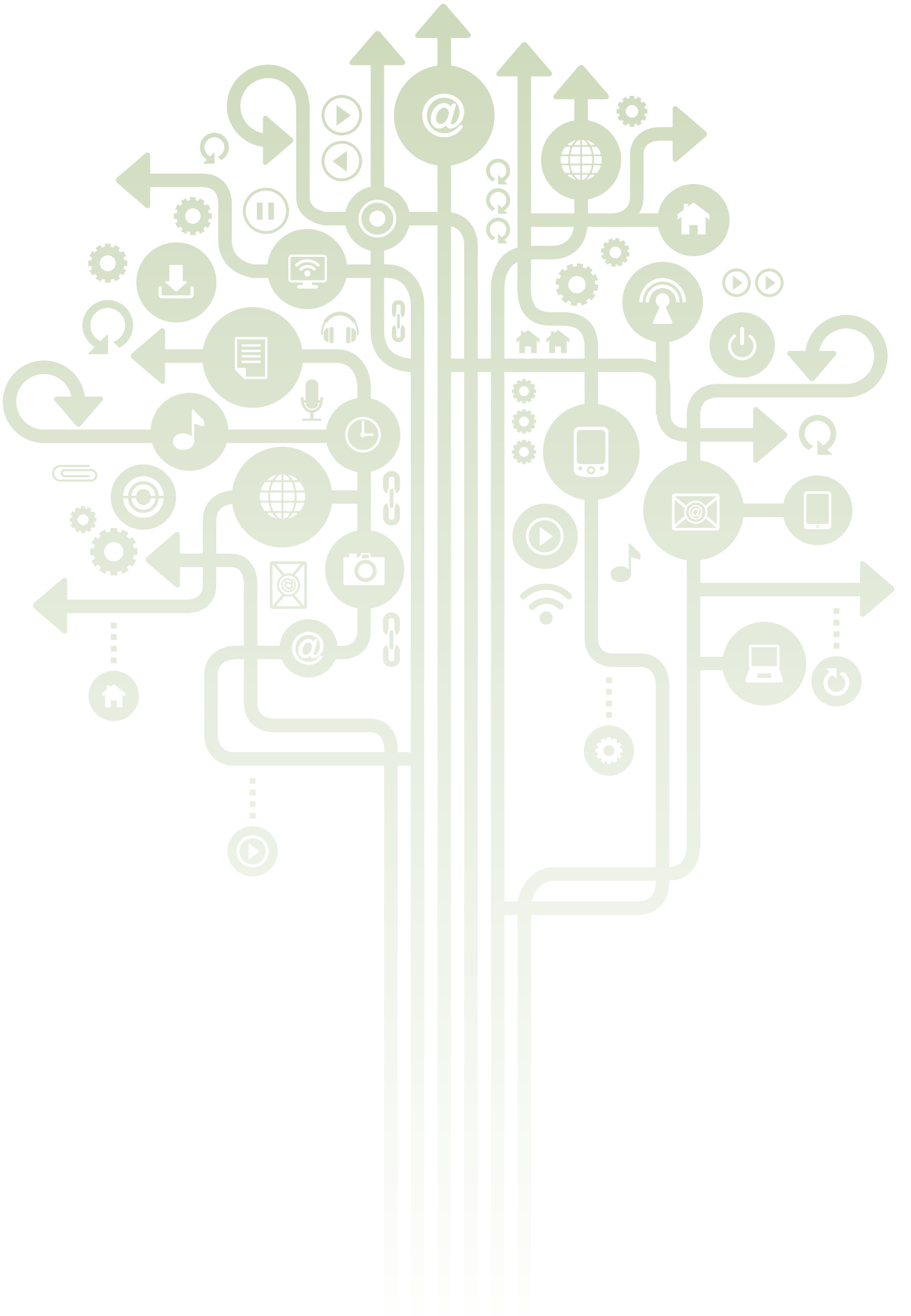
### Architectural principles for the State's ICT solutions

The Government intends for state agencies to apply the following principles in connection with planning of new ICT solutions or significant further development of existing solutions:

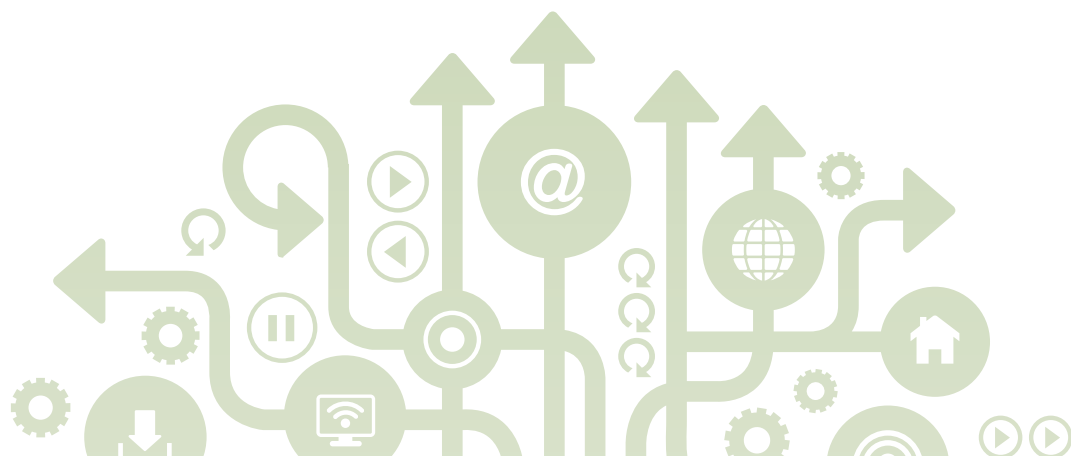
- Service orientation: ICT systems are to be structured as a group of limited subsystems to facilitate reuse to the extent possible.
- Interoperability: ICT systems must be able to exchange and share data and information with other systems through standardized interfaces.
- Accessibility: Electronic user services shall have a universal design, and the users must be able to use them regardless of time, location and channel.
- Security: Information and services must comply with confidentiality, quality and accessibility requirements.
- Openness: Public ICT systems must be based on open or approved standards. The systems shall not entail compliance with any special technology requirements on the part of the users.
- Flexibility: The public sector is to establish and develop ICT systems in such a manner that they will facilitate changes in use, content, organization, ownership and infrastructure.
- Scalability: ICT systems are to facilitate changes in terms of the number of users, data volume and lifespan of services.

### Administrative standards

In order to succeed with the work on digitization of the public sector, ICT solutions which can communicate with each other must be developed. Thus, standardization work is an important factor. The Norwegian Standards Council was established in 2007. The Standards Council proposes which ICT standards are to be recommended or become mandatory within different areas. The mandatory standards are incorporated into legislation and apply to both state and municipal agencies. An overview of recommended and mandatory ICT standards for public agencies is available via the standardization portal [www.standard.difi.no](http://www.standard.difi.no).







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