



Statistics 2016

Scenarios and strategic challenges

Preface

The aim of the work carried out by the scenario group is to make a contribution to the process that leads to a new strategy for Statistics Norway. The task has been to outline various development paths for the future market for statistics. The scenarios shall be used to test the sub-strategies that are developed for IT, data collection, ethics and human resources, and to support the new and complete strategic plan for Statistics Norway – Strategy 2007.

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Our hope is that the visions of the future that are created here will add to the involvement of Statistics Norway employees, for instance via active discussions in formal and informal forums. Better tools for an uncertain future will in turn lead to a greater willingness to change and increased drive for the organisation.

Enjoy the debate!

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Summary

This report documents the results from the scenario process that has been carried out both internally in Statistics Norway and externally during the first half of 2006. Statistics Norway appointed a scenario group in autumn 2005, consisting of ten participants from Statistics Norway and two from Telenor and BI respectively.

The background for the scenario initiative is that Statistics Norway shall compile a new strategic plan in 2006 that will apply for the subsequent 5 years. The strategy process involves drawing up scenarios, a primary strategy and sub-strategies for the fields of IT, data collection, ethics and human resources.

The purpose of the scenarios is to create *different visions of the future* of Statistics Norway's close and more distant surroundings as a basis for discussion in the strategy process. In addition to creating a backdrop for the new strategy, these scenarios shall provide organisational learning as a tool for involving all employees of Statistics Norway. The scenarios describe different development paths, which entail requirements for the statistics and Statistics Norway as an institution.

A description of *driving forces* is a central point in the building of scenarios. Driving forces are important society-forming changes that are expected to have a major influence on Statistics Norway's surroundings. This project focuses on driving forces that affect the need for statistics and the production methods for future statistics.

The process has led to the identifying and prioritising of 13 expected key driving forces, classified under the following subjects: globalisation, technology, demand/competition and political agenda.

The subsequent process has given rise to 4 scenarios with different outcomes for important, but uncertain, driving forces:

- Scenario A: **Trustworthy**. Entails stringent privacy protection and emphasis on government controls
- Scenario B: **We want to know**. Poor privacy protection and emphasis on government controls
- Scenario C: **The great downfall**. Stringent privacy protection and market opening up to more players
- Scenario D: **Free flow**. Poor privacy protection and market opening up to more players

Each scenario provides the opportunity to reflect on any potential pitfalls. However, more importantly, thoroughly prepared scenarios provide better tools to face an uncertain future. If the various visions of the future given here also lead to Statistics Norway's employees being more aware, more innovative and more dynamic, the scenario project will have succeeded.

The report also outlines some *main strategic challenges* for Statistics Norway that the different visions of the future entail. The most important of these are linked to:

- What *roles* Statistics Norway will adopt in the future
- How to build *confidence*
- How to make the most of *new data sources*
- How to relate to *competition and collaboration*
- How to acquire and maintain the *expertise* that is needed in the future market for statistics

1. Background, objectives and process

1.1. Background

Statistics Norway shall draw up a new strategy in 2006. The strategy process involves compiling scenarios, a primary strategy and sub-strategies for the fields of IT, data collection, ethics and expertise. The actual strategic document will be brief compared with Strategy 2002. Emphasis will be placed on conveying *clear objectives* for the organisation.

The scenarios shall create different visions of the future that Statistics Norway can relate to. In addition to being a backdrop for the new strategy, these visions of the future shall provide organisational learning as a tool for involving all employees of Statistics Norway. The scenarios shall describe different development paths, plus some that are now regarded as unlikely, and translate these to requirements for the statistics and for Statistics Norway as an institution. The answers to the challenges will not, however, be given until the sub-strategies are being developed. The scenarios are a tool for testing whether the sub-strategies hold water under various conditions.

This report includes a summary of the results from the scenario process.

1.2. Objectives

The scenarios shall contribute to strategies that make Statistics Norway more:

- Aware
- Innovative
- Dynamic

This is achieved by placing the emphasis in the scenarios on Statistics Norway's surroundings as opposed to the institution itself, and by practicing looking at and listening to our surroundings.

For Statistics Norway, the scenarios shall furthermore:

- Expand the organisation's thinking by providing mental models on the future
- Provide a better understanding; see events as part of patterns
- Help to frame projects and decisions so that they are more robust in several alternative futures
- Create a common understanding of the surroundings with regard to decisions
- Inspire the framing of strategies for the organisation

1.3. Process

The actual scenario process will contribute to:

- Learning
- More emphasis on the future
- Willingness to change and involvement

The process consisted of the following elements:

- Work in a broadly-composed scenario group, which has drawn up scenarios during the course of 6 meetings between January and June 2006
- Interviews with a selection of persons who together represent politics, industry, technology and academia
- Foundation work in various forums internally

The following persons have been interviewed:

- Kåre Willoch (former MP, Prime Minister and County Governor. Subject: Mainly the political agenda and problems that can be illustrated using statistics)
- Claus Sonberg (director in the communication advisory firm Burson-Marsteller. Subject: Use and users of statistics)
- Linda Sangolt (associate professor at the Department of Administration and Organisation Theory, University of Bergen. Subject: The role of statistics in society)
- Tim O'Reilly (founder and head of publishing firm O'Reilly Media, originator of the Web 2.0 concept. Subject: Communication and Internet technology)

Edited videos of these discussions form part of the delivery from the scenario group in addition to this report and a selection of presentations.

Presentations, discussions and group work have been carried out in Statistics Norway in the following forums, which have provided input to the scenario work:

- Strategy forum
- All managers meeting
- Divisional meetings
- Seminar for the Board
- Meetings in the Statistics Council
- ASU seminar

A meeting was held in Telenor for the scenario group and other Statistics Norway employees in connection with the development and exploitation of new technology.

2. What are scenarios?

“Building scenarios is about widening perspectives. Using scenarios is about widening options.” (Ged Davis, Shell)

Scenarios are complete visions of the future; in our context, visions of the future with the emphasis on conditions of major significance to the production and use of statistics, and thus for Statistics Norway's work.

The scenarios shall create fundamentally different futures. Good scenario work unfolds a space of possibilities. Scenarios are tools for learning. The purpose of the scenarios that are presented here is to provide Statistics Norway employees with a better understanding of the present situation and of the challenges we could meet in the future, as well as the opportunities that will open up.

Scenarios are not prognoses for the most likely development, and neither are they oracle predictions or visions of a desired development. Scenarios open up different paths of opportunity. What the future will bring is undoubtedly something else. However, elements of an uncertain future – which mechanisms are used, which forces will work, and what type of players will win the fight for a place in the sun – are conditions that effective scenario work will give an insight to, better tools for and greater understanding of.

Scenarios create visions of conditions that affect Statistics Norway, but do not say how Statistics Norway shall or should adapt these. This is part of the remainder of the strategy process.

The scenarios provide practice in long-term thinking – generally 10-15 years – while a strategic plan is normally for a 5-year period. Many of the challenges we will face 10 years from now will also need to be faced – at least as possibilities – in the short term. The scenarios shall therefore provide the basis for more innovation and drive with regard to future options. By relating to different envisaged development paths, we are better equipped to the challenges we face and can make the most of the opportunities to our own benefit.

3. How do we create scenarios?

The first step in the scenario process is to choose a scenario focus: what should the scenarios illustrate? Our focus is:

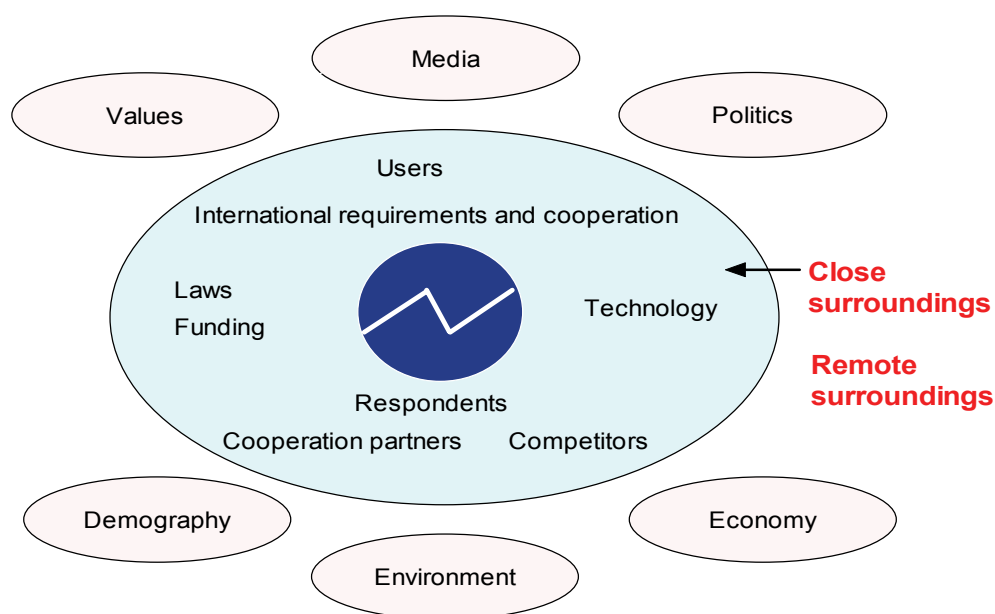
- *Statistics 2016 – what needs shall be covered and how?*

A time perspective of 10 years entails major changes. However, the perspective is not longer than decisions taken during the course of a 5-year strategy period having a bearing on the conclusions of the scenarios. Focus is on the external need for statistics, but also on how financial and political framework conditions and changes in technology will provide new needs for statistics and new opportunities for satisfying these needs.

A description of *driving forces* is a key point in the building of scenarios. A driving force is a condition that is regarded as having a major influence on the scenario focus, i.e. in this case on the need for statistics and the production method for future statistics.

Figure 1 shows Statistics Norway’s surroundings and some driving forces or types of driving forces that are important in this context. The surroundings can be divided into two categories: remote or close. Some types of driving forces such as technology, belong to both the producer of statistics’ close and remote surroundings. Most of the driving forces affect each other and are related.

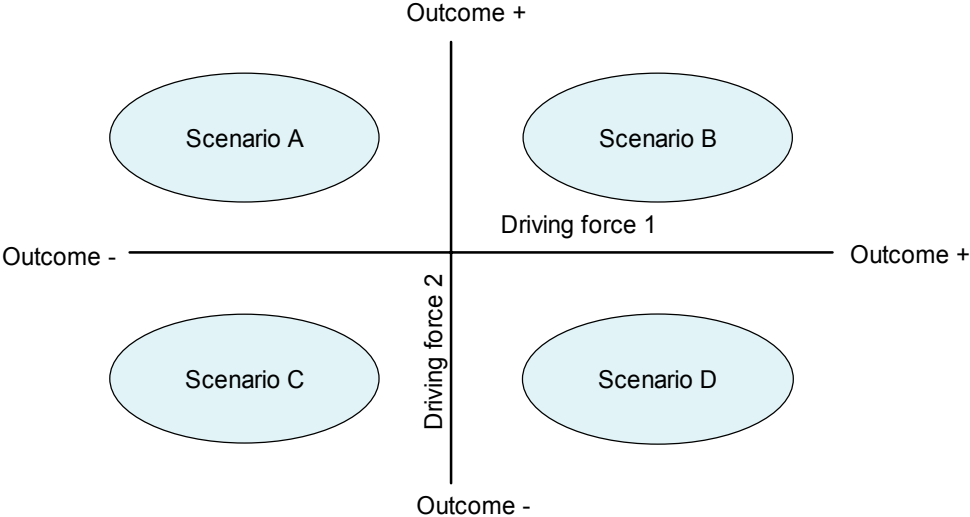
Figure 1. Surroundings of the statistics



Driving forces that are significant to the scenario focus are divided into two categories: certain and uncertain. The certain driving forces form the basis of all scenarios. It is the uncertain driving forces that can affect the outcome and provide a basis for different scenarios. A driving force with two opposing, but possible outcomes, can give rise to two scenarios according to what outcome the scenario is based on. Combined with another driving force, which also has two possible outcomes, four alternative scenarios can be created.

Figure 2 shows how two uncertain driving forces (each with two opposing outcomes indicated by + or -) can be combined in a system of coordinates. This system of coordinates unfolds a space in which different scenarios can be placed.

Figure 2. System of coordinates for two driving forces and scenarios



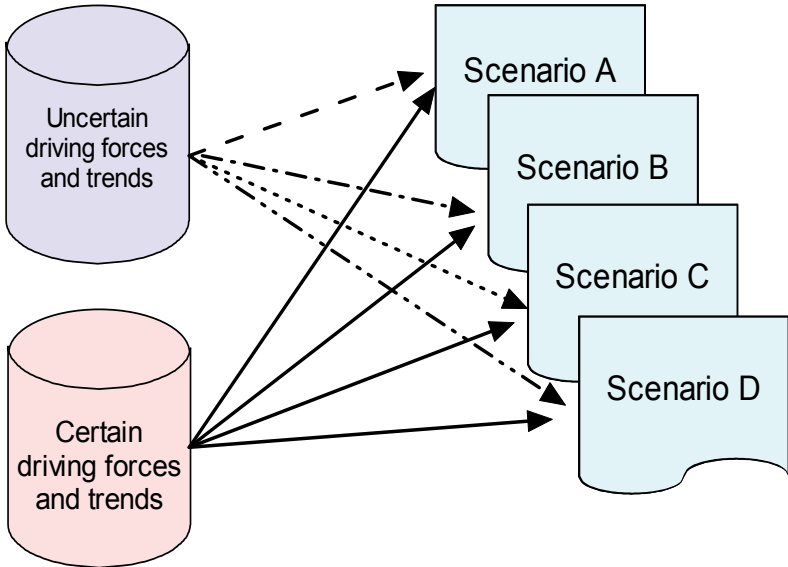
It will not normally be practical to create more than four different scenarios. Where there are a number of uncertain driving forces, priorities need to be made. Which forces should be emphasised in order to distinguish between the four scenarios? Which are the most important? How can we ensure that the resulting space that is unfolded is big enough and varied enough?

An analysis of the correlations between the driving forces is important – two driving forces that are related can be represented by one of them. The importance of the driving forces also varies.

In order to select the driving forces that the different scenarios will be based on, they are ranked according to degree of importance (significance) and uncertainty. Driving forces with the expected greatest significance and greatest uncertainty form the basis for distinguishing the scenarios from each other. The (relatively) certain driving forces are the basis of all scenarios. This does not mean that the less important and uncertain forces do not have any significance. These can, however, be included in the scenarios as needed. Driving forces and the use of a system of coordinates are *aids* to help achieve different and consistent scenarios, and not a part of these.

The method for building scenarios is illustrated in figure 3.

Figure 3. How to build scenarios



4. Driving forces for changes in the market for statistics

4.1. Selecting driving forces

We selected a total of 13 driving forces, which we have classified under the following subjects:

- Globalisation
- Technology
- Demand/competition
- Political agenda

As already discussed, a number of the driving forces will act jointly and/or influence each other. Some of the driving forces can be placed in more than one of the four categories. The classification that is chosen here, must not be regarded as detached.

The driving forces are:

Globalisation

- Economic globalisation
- Cultural globalisation
- International requirements and cooperation

Demand and competition

- Tabloidisation
- Brand awareness
- New players
- New types of user needs

Technology

- New data
- Easier access to data
- More confidence in a more secure Internet

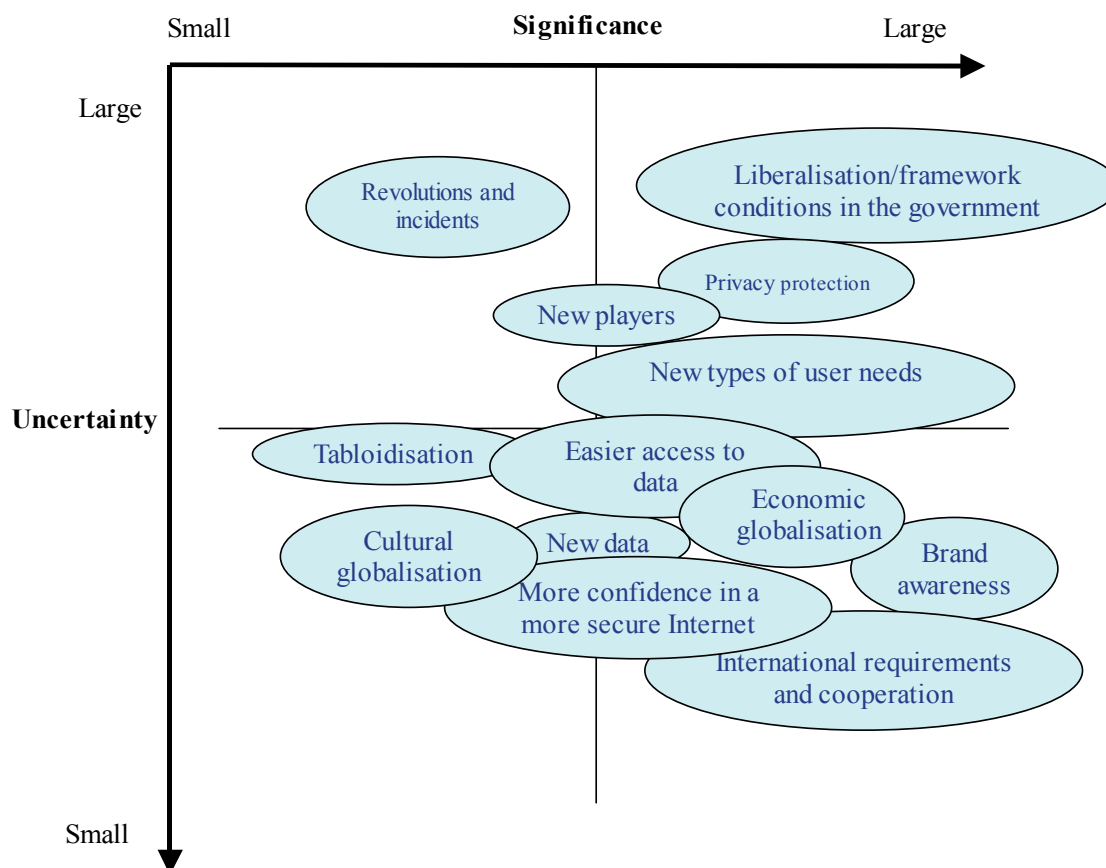
Political agenda

- Liberalisation/framework conditions in the government
- Privacy protection
- Revolutions and incidents

Many of these driving forces are highly effective today. The point in this context is *changes* in strength and scope, as well as new effects (such as new players in the market for statistics).

Figure 4 shows the result of an assessment of significance and uncertainty.

Figure 4. Ranking of driving forces for statistics



This gives rise to 4 scenarios that are distinguished by different outcomes of the most important but most uncertain driving forces:

- A: Stringent privacy protection and emphasis on government controls
- B: Poor privacy protection and emphasis on government controls
- C: Stringent privacy protection and opening up of market to new players
- D: Poor privacy protection and opening up of market to new players

The scenarios are presented in section 5. Some of the most important driving forces for change, i.e. driving forces whose development will have a great bearing on the future market for statistics, are described in more detail below. This also applies to some of the expected “certain” driving forces, in the sense of predictable development, which form the basis of all scenarios.

4.2. Globalisation

The main emphasis in this section is on economic globalisation, however international requirements and the need for more collaboration across country borders are also covered. The national state is the key player in the global arena. However, the borders to the rest of the world are becoming increasingly penetrable. Consequently, what will happen to the national state’s room to manoeuvre?

The scope of capital movements has increased considerably in the last 10-20 years, both in the form of financial assets and direct investments. National and international financial markets have become more intertwined. Companies as well as individuals have the opportunity to distribute their assets over an increasing number of countries and financial products. A great deal of this has taken place as a

result of the market opening up to new players. Technological changes have also helped make the world “smaller”.

New financial products are constantly coming onto the market. The “Special Purpose Vehicle” (SPV) was a product that enabled ENRON to hide large amounts of debt for years, and future revenues were being entered in the accounts with immediate effect. Norway has not imported SPVs to date, but the vehicles are extremely popular in the Netherlands and Ireland, and sales are steadily rising. The Basel II Accord for monitoring banks and finance, plus new regulations in the USA for audits and openness, aim at ensuring that such financial “vehicles” are not used in ways that hide the reality.

The increasing internationalisation of the financial markets has also resulted in fear that financial crises can be contagious. In the aftermath of the financial crises in Asia and Russia at the end of the 1990s, a number of proposals have been made to reform the international financial system. One important objective is to prevent new crises arising, and another is to suppress the spreading of crises that do occur¹.

A number of other questions can be raised in connection with the globalisation of the economy. How do multi-national companies act and adapt, and how do they affect the production and employment in a country? How do their activities contribute to technology transfers and trade flows? To what extent do multi-national companies’ transactions contribute to international financial crises? How and to what extent does manpower flow between countries? How does this affect salary levels and welfare schemes?

The behaviour of individuals is also changing in the globalised world. We travel abroad more often, we work on the continental shelf, and live in Spain for extended breaks. Of course, we also have a house and holiday chalet in Norway. Where do we spend our money, and what do we spend it on? Where do we use the health services and care services, and what are we actually offered? With regard to “the labour immigrants” that come to Norway, what offers do they need (welfare schemes)? Do the local authorities have the capacity to cover this demand? Have today’s economics statistics been adapted to analyse such problems?

The economics statistics have traditionally been aimed at describing the *national economy*. The statistics are an important part of the information basis for the authorities’ decisions in economic policy making. Additionally, the figures shall form the basis for studies on how the economy works via an analysis of *economic behaviour*. To what extent does globalisation contribute to a conflict of objectives between the procurement of data for running the national state and data for analysing economic behaviour?

With regard to globalisation, climate and environmental issues can also be highlighted. The Kyoto Protocol has led to a more stringent and more standardised reporting regime, more stringent quality requirements and requirements for more documentation on emission statistics as well as the basic statistics.

It is uncertain what form a follow up of the Kyoto Protocol will take, but it is assumed that it will be more stringent and cover more countries, including developing countries. A number of states are already working on ambitious targets for handling emissions after the Kyoto period (2008-2012) ends. In Norway, the Norwegian Commission on Low Emissions explains how Norway can cut national greenhouse gas emissions by 50-80 per cent by 2050. Other states have even more ambitious targets.

It is also to be expected that the Kyoto agreement together with general trends contributes to more industrial building in developing countries and less building in industrialised nations. Thus, the emissions and problems are transferred to areas where the statistics base is poorer. It is important to

¹ The collapse in the American hedging fund LTCM (Long Term Capital Management), which almost triggered a crisis for the investment banks in Wall Street in 1998, when the value of the fund plummeted as a result of the crisis in Russia, was a wake up call for the authorities.

identify the effect such indicators will have on the various countries' contributions to the global emissions.

Statistics Norway's statistics are normally based on the mapping of economic units or economic players, who in accordance with specified criteria are defined as the country's *residents*, and also describe residents' economic relations with *foreign nationals*. Extended economic interaction between residents and foreign nationals, for example increased traditional commerce, does not necessarily represent any new challenge for the statistics. However, there are features of the economic globalisation and the internationalisation of the business sector and individuals that challenge the *capabilities* and *relevance* of the statistics in relation to descriptions and analyses of economic development.

Challenges:

1) Measuring difficulties

When the business sector is organised across country borders, the *data collection* is disrupted such that the identification of the native economic units or the residents becomes more difficult. A legal entity can have ongoing and extensive operations in several countries, while the accounting is only carried out in one of the countries. Because the *statutory framework for statistics* is only designed with a view to data collection in Norway, access to the necessary information is impeded.

Measuring problems in the form of *interpreting* information can also arise, typically due to phenomena such as transfer pricing over country borders and unobstructed utilisation of a common IT infrastructure and intellectual capital.

Measuring problems that arise when determining the value of transactions between parent companies and subsidiaries, will affect cross section comparisons between industries, analysis and development over time and international comparisons based on traditional business statistics. There is also the question of how complete the information held by international groups on their activity in each country is, and how much importance they attach to the accounting along this dimension. Furthermore, we are faced with various international accounting standards that are in the process of being standardised (IFRS). In Norway, large businesses must introduce the new international accounting standards, while accounting in line with IFRS is voluntary for other units.

In addition to differences in costs, different tax regimes are also a driving force behind companies' divisions of operations in different countries. Within the EU, Ireland has particularly favourable rules for corporate taxation. This has led to many international industrial groups organising their accounting in such a way that a major share of the profit is subject to taxation at the group's enterprise in Ireland.

2) Loss of relevance

The development is pointing towards an increasing asymmetry between the statistical description of the economy as a primary national phenomenon, and the economic reality as a steadily increasing global phenomenon. In short, the statistics of today describe the part of the economy that is limited by the authorities' areas of influence, i.e. *within* the national state's borders, while economic players act and make adjustments *across* the national state's borders. The national economics statistics are in danger of becoming *less relevant* as a basis for analysing the players' behaviour and thereby the understanding of the way the economy works.

International requirements and collaboration

There is a close correlation between globalisation and *international requirements and collaboration*. In addition to the latter being a driving force in its own right, international collaboration can also be an answer (strategy) to globalisation as a driving force. This means that international collaboration must be achieved in order to resolve common statistical challenges. Globalisation can also lead to the laying down of more and more new international requirements, for instance in relation to issues related to the environment and the financial market.

The UN plays a key role in the standardisation work.

A greater role could be envisaged for the **OECD** in the statistical field, with increased membership and a coordinating executive body, and a higher demand for comparable statistics within the OECD.

EUROSTAT – Statistical Office of the European Communities – will steadily strengthen its role as more countries join the EU, and the EU needs statistics as a basis for fact-based policy making and administration. Possible new statistics legislation and common guidelines on practice help to integrate European statistics.

There is very little to indicate that dramatic changes in the role distribution between these bodies will take place in the near future. However, better coordination must be expected with regard to data flows to and between the various bodies. This can also make demands on better coordination at a national level.

From EEA to EU – new forms of collaboration?

In the event that Norway joins the EU, some, although relatively moderate changes will take place:

- Clearer requirements for the follow up of the statutory framework in certain areas of statistics
- Extended and amended statistics in some areas: agriculture, regional statistics and foreign trade
- Possible increased financial contribution to statistics – based on a larger Norwegian contribution to the EU

Changes in types of collaboration can produce major effects – to some extent depending on EU membership:

- European surveys – fewer requirements for detailing for small countries
- Better integration of European statistics: European registers, exchange of information at a detailed level
- Development of centres of excellence – division of labour between the central agencies and network building

Relationship to other driving forces

The technology development is an important driving force for the globalisation. An establishment's IT department can now be in India and the switchboard in Estonia.

Globalisation also has a clear correlation with *privacy protection and legislation*. How will national legislation work in a global world? Is exchanging data across country borders legal? How should we relate to confidentiality issues?

Will the *political agenda* (environment, accidents, disasters, terror, clash of civilisations) affect the globalisation? Environmental disasters are very likely to affect international requirements and collaboration, but what is the relationship with economic globalisation? Do terrorist attacks (such as 9/11) open or close borders? Are the consequences that we do more or less business with each other?

4.3. Technology

The technological development has always been a key driving force for the production of statistics. From its small beginnings where Hollerith's electrical tabulation machine was used for the population census in 1900 to Statistics Norway's activity was fully automated in the 1990s, the biggest effect of the technology development was mainly in the internal efficiency improvements of the activity. By the mid 1990s, the dissipation of the Internet had really taken off. Technology was applied for external purposes, and Statistics Norway started using the Internet as an official dissemination channel. Additionally, new technology was used for the collection of data.

The technology development has thus been a century-old driving force for the internal development in Statistics Norway, and a mere 10-year driving force for the external development.

The next 10 years are likely to be characterised by new, practical and partly pioneering applications of the technology that already exists today. Telenor's research work has gone from being driven by technology to being user-oriented. How does this affect and meet potential user groups' future needs? Additionally, the capacity and propagation of existing technology, for example processor power, storage capacity and transmission rates in networks, will continue to develop very quickly.

The technology development is certain to be a driving force in the next 10 years, and it is likely to be new *applications* of mainly familiar technology that will be in focus.

Features of the development

We expect a development that will be reflected in three fields:

- New (types of) data will emerge
- Access to data and information will be simpler and more precise
- Secure communication and storage will increase the confidence in the use of digital services and information

The technology development will also have an effect on Statistics Norway's forms of production and efficiency. These consequences of the technology development will not be explained in any more detail here. The access to new services and new information in the market are the areas where the technology as a driving force could have the greatest effect on Statistics Norway.

New data

The range of units that communicate with each other via a wireless connection will increase considerably in the future. This particularly applies to small units that communicate within short ranges, such as when using small radio chips that will eventually cost next to nothing. Such chips are activated by different receivers/transmitters. One of their applications is to track goods from the point of manufacture to the customer (RFID – Radio Frequency Identification tags). The same technology can be used to store specific information on anything in our surroundings and can be retrieved via mobile phone for example. Located information (e.g. based on GPS) is becoming crucial. Information from different sensors, which can be made available for many different applications in various types of communication products, will gradually make up an extensive sensor network. For the time being, the application potential seems infinite. The use of new technology will create and deposit a practically endless amount of new information.

It will soon be possible to access the Internet anywhere in the world, via almost any kind of device (telephone, digital planner, PC etc.). The capacity in the network will continue to grow, and will be more than adequate for our currently known needs. Today's constant searching for access to the Internet, low bandwidth and unstable conditions will cease. The Internet will become part of our every day lives and will follow us wherever we go.

The digital technology will become part of our personality. Considerations for usefulness will be supplemented by "good to have" considerations; already obvious via multi-function solutions where the telephone, PC, navigation system, digital planner, video camera, camera, CD player etc. overlap and compete with each other based more on a lifestyle perspective than how useful the device is.

Overall, this is leading to an abundance of new users, new services and a formidable amount of new data.

Better access to data

The Internet in its present form is organised in a primitive fashion. In principle, the organisation of information is based on two foundations; where the information is found (URL) and how it looks (HTML). There is no information on the content that is comprehensible to anyone other than the person reading it. Various search engines have been developed, and some with advanced algorithms retrieve, index and store information based on key words, frequency of entry etc.

As the volume of information on the Internet continues to grow, it will become increasingly difficult to utilise the information in the Internet's present form. We are now seeing the beginnings of the next generation's Internet, launched through concepts such as Web 2.0 and Web 3.0.

Web 2.0 is primarily a change from being a more or less purely information channel to becoming better adapted for new types of services. Additionally, new forms of visualisation will provide better opportunities for understanding and retrieving the desired information. Those who have success on the Internet are those who offer services that link knowledge, and create more benefits and, in a way, new intelligence. However, this is not enough to take control of the growth in information. Web 3.0 launches the *semantic web*. This means that the information content can be structured according to a set of common standards, whereby different services or applications can use each others' information without knowing the content beforehand. The future propagation of Web 3.0 will take some time, but we will undoubtedly see results in this field within the next 10 years. The standardisation of content will open up new possibilities for the production of statistics, but also pave the way for massive competition for the further processing of generally available information.

Confidence in a secure Internet

A formidable growth in new data and new services available on the Internet is dependent on all players and users feeling secure that the information they enter is not misused, that information they retrieve is accurate and that transactions and business are carried out safely and legally. Without this confidence in the Internet, users will stop using the services enabled by the technology.

We are, therefore, looking at a necessary but speedy development of security solutions for the safe use of Internet services. It is reasonable to assume that all types of services during the course of the next 10 years will be generally available and used over the Internet. This includes all users (private individuals, the public and private sectors) using trusted third parties (TTP services) in order to verify themselves or their services on the Internet, and this taking place in a way that is generally trusted.

Challenges

All of the above elements; wireless technology, new data, better access to information, confidence in digital communication, are factors that are necessary for enabling us to be in the middle of a new world of new, broad-ranging technological applications 10 years from now.

The greatest uncertainty relates to the degree to which Statistics Norway and other players will have access to the information that is produced. It is also uncertain whether the information will contain sufficient data, or have the capability to be linked to other data so that it can be used for statistics, for example.

While the technology will almost certainly make it possible to obtain almost any service or information, attitudes and privacy protection laws, and the power and exclusiveness in the statutory framework that Statistics Norway uses or is protected by, will be vital in determining the extent to which and how these driving forces will affect us in the future.

4.4. Demand and competition

According to the definition of the Statistics Act, official statistics are statistics that are produced by Statistics Norway and other public institutions. Around 20 important public statistics producers are gathered in the Statistics Council, which is a coordinating body managed by Statistics Norway. A set of minimum quality requirements for official Norwegian statistics have been drawn up. Statistics Norway is responsible for 80-85 per cent of the statistics that merit the description official Norwegian statistics.

Other statistics are produced by a number of players such as opinion poll and market analysis firms, banks and financial institutions, the business sector and special interest groups, consultancy firms, research institutes and international organisations.

Trends

Both the total market for statistics and the market for official statistics are increasing in volume and in the number of participants. This means pressure for new assignments for Statistics Norway, which must be financed directly by the party commissioning the work. The user-financed assignments' share of Statistics Norway's total budget rose from around 15 per cent at the beginning of the 1990s to 30 per cent in 2005. The majority of these assignments were from public or international institutions.

More potential future cuts in government assignments will also make the competition more important for Statistics Norway (until now, annual budget cuts of 1-2 per cent have been common). The competition can also be of different types that are related:

- Competition for obtaining assignments for the production and/or analysis of statistics
- Competition for respondents
- Competition for visibility and confidence

Tabloidisation

Tabloidisation is defined here as the trend towards disclosing sensational news that is normally about individuals or the fate of individuals, where the focus is on "me and mine". Background material and comments on politics, the economy and other social conditions are given a lower priority in favour of entertainment material and celebrity life. This development is set to continue. This means that statistics on groups and main trends can become less interesting, where such statistics are not related to individuals and "my needs". Players who can carry out fewer, but quick surveys on current issues win.

Brand awareness

Increasing brand awareness means efforts to create and maintain a mental image of a product or service with the name/logo in the population's consciousness, in order to give the product an identity and extra value. Competing for attention applies to both products and institutions. This is a trend that is set to continue, and which has a large bearing on visibility, and thereby the competition. Statistics Norway currently has a brand in the market for statistics, with high confidence levels for independence and quality. Few other players have to date built brand awareness that gives associations to statistics, but this can quickly change. One exception is Sentio Norstat, which in practice has marketed itself as Norwegian statistics. Statistics Norway and the Director of Public Prosecutions have initiated proceedings against this name. The confidence of the respondents can be impaired if Norwegian statistics can easily be confused with Statistics Norway.

New players

Completely new players have evolved in new areas such as information searches and propagation on the Internet. This can eventually have a major impact on the market for statistics. A good example is Google, which was founded in 1999. The most recent development from Google is Google Earth, which provides detailed satellite images and map information with flexible opportunities for the users. The effect this could have on the market for maps and geographic information, which has been characterised by mapping monopolies and high prices, can only be speculated. This is just one of many examples, and players that don't even exist at the moment can enter the market for statistics during the scenario period.

New types of user needs

The statistics production must always be adapted to new user needs in line with social development. We have had a trend, for instance, from agricultural and industrial statistics to service and ICT statistics. New *types* of user needs can, however, also have a large bearing in the future. This applies to statistics as a basis for ranking products such as current music and book charts, new approaches to the presentation of statistics, e.g. as a result of tabloidisation, new methods of propagation that use video and other multi-media, new types of analyses and expectations of new *roles* for a producer of statistics. Key words here are data processor, i.e. administering registers that are also used for statistics – quality control, coordinating and giving advice to other statistics producers in Norway and abroad. The emphasis is on professional independence in the majority of these needs.

Relationship with other driving forces

All of the driving forces that are specified below demand/competition, are related. They are also related to other driving forces such as technology, new players and user needs. Furthermore, the political agenda will have a major bearing on the market for statistics, with regard to what should be illustrated using statistics in addition to the degree that the market opening up to new players affects the players. Privacy protection also has a bearing on the extent to which the demand for detailed statistics can be met.

4.5. Political agenda

Liberalisation and framework conditions in the government

Only Statistics Norway has the legal authority to link registers and collect data. Principles and guidelines for statistics must be adhered to regardless of whether the statistics are subject to compulsory competitive tendering or not.

Amendments to the Statistics Act can mean changes to framework conditions and competitive conditions. One extreme is hefty cuts in the basic allocations above the central government budget, simultaneous to new statistics legislation greatly limiting the opportunities for linking data (more stringent privacy protection). Major reorganisations of the statistics activity are also possible in combination with amendments to legislation.

In the event that the statistics legislation is firmly established, it is likely that the opportunities for changes in the framework conditions will to a greater extent be limited to annual changes in the basic allocations in the central government budget and minor changes in the organisation of the statistics activity.

With regard to the framework conditions for the production of official statistics, the potential pressure for compulsory competitive tendering and privatisation are generally the first considerations. Budgets are being cut for the national statistics institutions. However, a general increase in demand for official statistics and analyses, and not least an increased pressure for public and independent focus in new areas where the statistics expertise can be exploited, are also possible. Such conditions pull in the opposite direction.

In recent years, the general government assignments to Statistics Norway have been reduced every year, and the user assignments have simultaneously increased. Budget cuts on government assignments have been replaced by earmarked allocations given in connection with the development of new statistics. In the beginning, such allocations were often given as user-financed assignments, which were subsequently converted to government assignments when transferred to managing new statistics or new assignments. These assignments can entail new roles for Statistics Norway and pressure to create new statistics. Such new roles can entail data processing on behalf of other public institutions, quality control, production of control data and result controls for government departments. With Statistics Norway as an independent player with great confidence in all environments, new assignments will emerge. The risk of cuts in government assignments will diminish. However, with regard to demand and competition, it is crucial that Statistics Norway shows willingness and the ability to adapt quickly in order not to have its allocations cut. This objective of this scenario project is precisely that – for Statistics Norway to be a statistics producer that is more sensitive and willing to change.

The public sector is not geared up for compulsory competitive tendering. One key question for Norwegian general government in the next 10 years will be what significance the New Public Management (NPM) will have. NPM has been particularly committed to distinguishing between various roles and functions. While different roles were previously gathered in one institution, a different type of organisation can be formed where basic different functions are distributed over various activities. For example, one company can be responsible for operations/production, another for inspection and a third for analysis. The various companies can, to varying degrees, be open to compulsory competitive tendering or have a monopoly.

In connection with the discussion on competitive activities in the public sector, the Ministry of Labour and Social Inclusion and the Norwegian Competition Authority established an expert committee in 2004 to undertake a fundamental analysis of the competitive problems that arise when public enterprises compete with private enterprises². The main conclusion of the committee is that public enterprises should generally only enter competitive markets when it can be documented that there are major synergy effects between the core activity and the competitive activity, and that these gains benefit the core activity. A central public statistics operation has economies of scale by linking several assignments. Further, there are positive synergies in the feedback of statistics from the public statistics institution's own research activity. Complexity costs where the activity becomes too great and poorly coordinated pull in the opposite direction.

Although the economy is becoming increasingly market-based, this does not necessarily mean less to public statistics operations over and above government assignments. The fact that a large number of players participate can result in products of varying quality. If reliability, independence, integrity etc. are important, this can increase the chances of Statistics Norway fairing better in the competition for assignments from the market. This could have a bearing on the production of statistics and the research activity.

A more market-based economy will also be related to the globalisation and technological development. Improved technological capabilities pave the way for making it easier to sell services. The production of statistics, running large models and analysis activity can in principle be carried out in countries with low salary costs and thus result in financial gains. Collaboration with European statistics agencies will help form the basis for specialisation gains. The Norwegian Competition Authority would probably not appreciate micro data being sent to India, for example, for conversion to statistics. Privacy protection and statistics legislation limit the opportunities for relocating such activity.

Privacy protection, legislation

Under the provisions of the Statistics Act, Statistics Norway has the authority to compile official statistics and to process the personal data that are needed to create the statistics, including sensitive personal details (cf. § 2 no. 8 of the Personal Data Act). Statistics Norway can use administrative registers and request copies of such registers to be provided, with the exception of health details subject to confidentiality in pursuance of the Health Personnel Act. Statistics Norway can link all registers for use in statistics. For data collected with the consent of the respondents, such links shall be approved by the respondents.

The Personal Data Act requires a licence to process sensitive personal data and the linking of extensive registers, unless legislation permits such processing. The Norwegian Competition Authority agreed with Statistics Norway in 2001 that the Statistics Act provided sufficient authority for such processing, and that the licence is not necessary.

The capability to create links on the basis of personal identification numbers can be reduced by the privacy protection being strengthened. Such tightening up can, for example, happen as a result of errors and weaknesses being discovered in the present routines, which result in sensitive personal data being released in the media. A possible tightening up will be that the Norwegian Competition Authority instructs a pseudonomising of all official personal registers. This means it will no longer be possible to store personal data, including personal identification numbers. All registers/files containing personal identification numbers must be pseudonomised as soon as they have been examined, within a certain period of time from receipt. A pseudonom number means that persons can easily be followed over time/place within the individual register. Links between registers require the capability to use the same pseudonomising keys. Privacy protection can further be strengthened by denying the use of the same pseudonomising keys.

² Bjørnenak, T., D.M. Dalen, N.-H. M. von der Fehr, T.E. Olsen and Gaute Torsvik (2006): "På like vilkår? En analyse av konkurranse mellom offentlig og privat virksomhet", ("On equal terms? An analysis of competition between public and private activities") Økonomisk forum no. 1.

Another possible strengthening of privacy protection could be if Stortinget decided that all central administrative registers in Norway should be regulated in separate directives, in accordance with the template for the health registers. The registers should only be used for the purpose they were originally created for, and only those who create the registers shall compile statistics. Links with other registers should be prohibited, with the exception of those for research purposes.

A strengthening of privacy protection by making it no longer possible to link data will entail a greater burden for the respondents. The respondents can be less willing to answer when they have to take part in more surveys. On the other hand, a strengthening of privacy protection of this nature will lead to increased confidence that the data are not misused, and the result can be that the respondents answer because they feel secure.

Terrorist threats and widespread crime can contribute to a desire to reduce privacy protection in order to make it easier to track down criminals and terrorists. In such a situation, or in the event of crises and accidents, access to data will be more important than confidentiality. Reduced privacy protection will give a much better basis for statistics and analyses with greater uniformity and comparability.

Reduced privacy protection through changes in the Statistics Act can take different forms. The Act can be amended such that the duty of disclosure is only limited by statutory confidentiality linked to national security. This will enable the potential for the capability to link central health registers and other sources to a large database for dynamic analysis, for example concerning health and quality of life issues. Another change in the Statistics Act can be the softening of confidentiality such that feedback on errors to register owners is possible. Coordination and exchange obligations could be imposed on all official registers, and those responsible for official statistics may be given the task of combining and quality assuring the registers.

A liberalisation of privacy protection can also come about as a result of globalisation and international collaboration. Supranational bodies can, to an increasing degree, impose member states to forward micro data. In order to meet such international requirements, the provisions of the Statistics Act concerning confidentiality (§ 2-4) and use of the data (§ 2-5) can be amended.

Accidents and revolutions

Various dramatic events hit us at irregular intervals. Examples of these include the tsunami, which affected Norwegians abroad, and various events that create health problems and death. The E.coli bacteria and possible cases of avian flu have had extensive media coverage. Natural disasters and new epidemics normally develop quickly, while other conditions that have a major impact on our welfare have a more predictable development. Amongst other things, there is a clear trend in the direction of lifestyle illnesses (e.g. diabetes 2). We are also facing various environmental problems, the scope of which is more or less unknown. Another problem that can worsen, is conflicts that are related to religious, ethnic and cultural differences.

Global environmental disasters, large epidemics etc. are leading to increased collaboration across country borders in order to provide more information on crucial related factors. There may be a demand for more statistics and analyses, with the emphasis on correlation, overview and long-term aspects and the need for projections.

An increasing number of conflicts that are due to differences between ethnic groups in different parts of the world can hamper collaboration between countries, and curb both the economic and cultural globalisation.

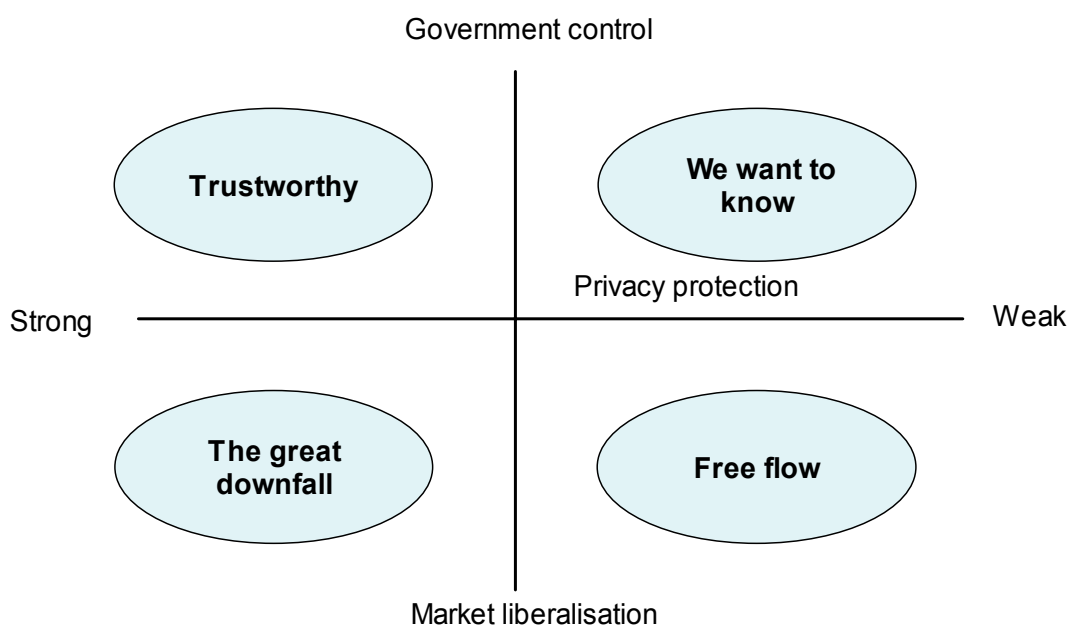
An increased scope of lifestyle illnesses will result in a greater need for health statistics and analyses of correlations between lifestyle and health.

5. What will the market for statistics be like in 2016?

The following is a presentation of the four different scenarios for the future market for statistics that the scenario group has compiled. The scenarios shall give different answers to the question What needs for statistics shall be covered and how in 2016? Each scenario is written as a hypothetical situation in relation to a possible course of development, led by the direction of the driving forces we have chosen to focus on.

Figure 5 shows how these scenarios are mainly unfolded from the axes for the important but uncertain driving forces *privacy protection* (strong/weak) and *liberalisation/framework conditions in the government* (opening up of the market versus stringent government controls).

Figure 5. System of coordinates for the scenarios



The following are the stories we want to pass on from a retrospective position in 2016.

5.1. Trustworthy

The interactive and media society characterised the beginning of the new century. Statistics were used to an increasing extent as tools for promoting establishments' own interests, while the media was marked by tabloidisation and personal information. Misuse of both statistics and personal details brought to light the need for independent and quality assured statistics, which was put on the political agenda, and privacy protection was strengthened. The need for producing official statistics on behalf of the public sector increased, but simultaneous to this, requirements were set for what these statistics should illustrate and be used for. Due to the stringent privacy protection, more statistics than ever before had to be based on sources other than administrative registers.

Statistics as tools in the interactive society

After the turn of the century, statistics were used to an increasing extent as a basis for marketing and sales. This was initially to map customer needs, but gradually became a direct tool for promoting establishments' own sales. Previous examples of this are music and book charts such as the VG chart, which was described as the official music chart. The use of surveys to promote own economic or political interests was also growing steadily, with questions formulated in such a way that the answer was almost given.

Some of these statistics were based on the electronic tracking of goods that were purchased or used, but the method was generally a secret. Other statistics were based on voting from mobile phones, the Internet or with the introduction of digital TV, on utterances directly from the sofa. Such methods led to inaccurate statistics where the majority were attributed with more extreme opinions than the silent majority have, which gradually created mistrust of private statistics players.

In 2009, the press support was reorganised as media support based on “the official media list” compiled by Schibsted through the subsidiary Schibstat. The methods behind the list were kept confidential for “commercial reasons”. Not surprisingly, this list helped the group’s newspapers and other media (electronic and paper) to achieve a dominating position. Other media such as the newspapers Dagsavisen, Nationen and Klassekampen went bankrupt, and NRK had major financial problems. This triggered a debate on the role and value basis of statistics. It gradually became apparent that most statistics and surveys created by market players were complete hogwash. There was also a great need for impartial consumer information, for the users, producers and sellers, and also for the authorities for policy making.

Tabloidisation leads to strengthened privacy protection

The trend for tabloidisation and personal information in the Norwegian press accelerated. Celebrity journalism blossomed. The methods that were used to obtain information on individuals were not always in accordance with ethical guidelines. The development went from photographing children in the royal family to attempts to obtain access to registers with interesting and intimate details. Despite stringent legislation on health registers, sensitive information often fell into the wrong hands. This may have been by accident, but the most serious leaks were where there was no doubt that money was changing hands. As long as the press protected their sources it was difficult to stop this development. A scandal surrounding sensitive health data that fell into the wrong hands in 2009 led to a further enforcement of privacy protection. In order to stop the spread of individual data, no one was allowed to link administrative registers, including for statistics and research purposes. This development was advanced by a battle between public institutions that protected their own registers and by a parallel development within the EU. The first step in a development that made register links difficult was taken in relation to the Personal Health Data Filing System Act in 2001.

For the statistics, this meant that Statistics Norway had lost the opportunity and thereby the monopoly to create statistics based on register links. “Each institution’s own statistics” was the rule.

Faith in government controls – and in official statistics – grows

After 2010, the faith in the government infrastructure and controls grew. This was partly a reaction to a period where the population and government had a liberal attitude to the market. In 2013, the government decided that statistics that had a bearing on the competitive situation and use of public funds should henceforth be compiled by an independent body using documented methods, in line with the requirements for official statistics as formulated in European guidelines in 2005. There is great understanding for official statistics being produced and published by an independent public institution, as a public benefit freely available to everyone.

One important reason for this is that the confidence in the fragmented and unreliable production and use of statistics-based knowledge in society suffered a major blow. Brand independence and statistics as a public benefit sell!

The general government is constantly setting more specific requirements for public statistics producers with regard to the type of official statistics the State should have. Critics claim that this will weaken the independence of the production of statistics in the long term, but are seldom listened to.

Lift required for internationally comparable statistics

There is now a clear EU-friendly attitude among the population, and the government is preparing to apply for membership. However the lack of relevant international comparisons has become more and more visible – how can users find what they are looking for on the increasingly chaotic Internet? A lift is needed in the dissemination of international comparisons. This makes it even more crucial than

before to consider all of the EU's statistical requirements, and it will be easy to secure financing for this.

At the turn of the century, international collaboration largely revolved around requirements for comparable statistics, standardisation and the exchange of experiences in order to use the best methods. The requirements that "unlimited" statistics set 10 years later, made specific collaborations necessary for the production of statistics and a division of labour between the countries.

Technology means new data and economies of scale – but privacy protection makes utilising the technology difficult

The limitations in the use of administrative registers increase the need to obtain data on important social topics via direct data collection. This means that it is particularly important to use new technology and new methods, both in order to collect and compare data from different sources. Electronic tracking is becoming a vital source for statistics, but the exploitation of this is limited or is difficult due to privacy protection restrictions that mean that identification of individuals and establishments is often lacking. The technology also means economies of scale that can lead to the response burden being reduced in the event that the collaboration between public institutions that carry out data collection is strengthened. New solutions are based on exchanges via Web 2.0/3.0. Among other things, "Altinn/altut" and "Min side" have been merged to form "Allforme". However, consent is required from the respondents in order to link these data.

Statistical sampling theory is having a renaissance, since a number of surveys where register information could previously be linked must now be based on unit sampling, generally equipped with their own chips or electronic cards.

Using new technology puts new demands on expertise. This particularly applies to method know-how, in order to be able to compare data from different sources without personal identification and to carry out sample surveys. There is tough competition for this type of manpower, but it is possible to find it outside Norway.

Willing respondents

Due to the stringent privacy protection rules and general support of the value basis for official statistics, individuals and establishments have few objections to providing data to independent public institutions.

New roles and assignments surge for independent players with expertise in statistics

In 2016, independence has become an important characteristic of a statistics brand! The demand for a state, but professionally independent institution with high levels of expertise in statistics for taking on new roles and assignments, is not limited to official statistics. Key words are roles such as data processor, publisher of data for researchers and others, quality controller, adviser (also internationally) and training institution. A good understanding of figures and statistical analyses is also required in connection with crises and accidents such as epidemics, natural disasters and environmental disasters. The number of such events has risen in the 21st century, with increased globalisation and accelerating climate changes.

Stringent privacy protection rules and new roles and assignments for a public statistics producer all lead to a greater need for legal expertise.

5.2. We want to know

The start of the century was marked by international conflicts and terrorist acts, environmental disasters and poverty. In Norway, this led to a greater demand for more credible and traceable data within new statistics areas. There was space for new players to produce and publish information in their areas. However, the strong bond between statistics producers and the commissioning party, as well as tabloidisation of the information, gradually created widespread scepticism among the super users within Norwegian general government. In order to regain the confidence in statistics as an information and factual basis for political decisions, Stortinget therefore decided in 2010 to introduce official quality requirements for statistics similar to the requirements for food and paper qualities.

New public administration

An evaluation of experiences with compulsory competitive tendering and the privatisation of public sector activities, which had created many conflicts between government services and ministries, identified a need for an integrated control function in order to safeguard a number of different social considerations. Super organisations such as the new Norwegian Labour and Welfare Organisation (NAV) was the first in a long line of innovations by the government based on a regulatory ideology that attaches importance to uniformity, continuity, coordination and quality.

The election in 2009 led to an unstable political situation, which paved the way for more stringent controls for the ministries. The bureaucrats demanded official, credible statistics in many new areas. There was cross party disagreement on security issues and protecting the democracy. High levels of immigration, looming ethnic conflicts and revelations of economic irregularities all prompted the requirements “We want to know!” with regard to companies, organisations and individuals. “Let’s get the parasites!” became more important than “Strengthen privacy protection”.

Competition and segregation in the ether medias

In the fight for our attention, the ether medias are constantly bombarding us with shallow and tabloid-type news and non-news at an ever increasing pace. Simultaneous to this, the various licensees are raising the prices. Sports events are sold at astronomical prices, and the players in the ether medias are merging in order to be able to meet the growing demands for entertainment. The population has grown tired of being fed hundreds of disjointed and partly similar news items from the different medias. A few players have taken the challenge to focus on fewer, but important and significant news items, more material based on research, and solid statistical background material for news, documentaries and debate material. The new NRK (Norwegian Broadcasting Corporation) is addressing the growing interest for issues related to democracy and participation in society linked to the renewed public debate.

”We want to know”

In 2011, there was a terrorist attack on the American embassy. There was a large number of fatalities, including embassy employees and neighbours. A raid was carried out in Holmlia, where the police did a door to door search and arrested immigrants based on information from public registers. The action received widespread support among the population and led to new statistics legislation in 2012, which paved the way for enabling all types of data to be provided and/or used to track suspicious and subversive activities. Norway is learning Homeland Security from the USA.

Growing need for international collaboration

The globalisation continued to gather pace after the turn of the century. An increasing number of multi-national companies are being established. The population is more mobile – some live in one country and work in another, and creates new challenges for the politicians both in relation to employment, planning schools, kindergarten services, doctor services and nursing and care services. In addition, the multi-national companies have created uncertainty surrounding taxation and the State’s future tax revenues. The need for international collaboration and standardisation is growing, as is the need for international exchanges of information, particularly in connection with new requirements from Eurostat and the UN. Attempts were made to safeguard the new needs and requirements in the new statistics legislation in 2012.

The globalisation and scandals linked to the Millennium Declaration shook the entire UN system in 2010. Manipulated statistics from member countries had repeatedly led to incorrect payments from the UN and undermined the confidence of the millennium objectives. Similar data manipulation episodes in the EU and Eurostat led to the UN deciding to create a separate unit for micro data – UNSTAT. All member countries are obliged to send micro data to UNSTAT, which then makes the data available electronically for all statistics agencies and research environments in accordance with a set of rules developed by UNSTAT. This resulted in the provisions in the statistics legislation on confidentiality and use of data being amended in order to meet the international requirements. UNSTAT is currently working on providing online read only access to all data sources via the national statistics agencies.

Amalgamation of yesterday's reality and virtual reality

The Internet technology enables the amalgamation of reality, as we currently know it, and the electronic world. Your fridge tells you what you have and what you need. Your car tells you which parts need to be replaced. All necessary information on an individual's surroundings are collated and made available in the webophone. The development began to take off in 2006. The use of RFID became widespread and from 2008 all goods had a microchip that enables them to be tracked from manufacturer to consumer, and RFID functionality became standard in mobile phones. Young people in particular liked the new capabilities for paying bus fares, finding lost items, reading about products and adding greetings to articles they purchase. They have no misgivings about leaving electronic tracks, and consider it natural that such information is used for statistics. In fact, the majority prefer to give direct access to data instead of having to answer long questionnaires or be interviewed. Respondents feel that they have already given so much information about themselves that they don't want to spend any more time answering questions.

New roles

Not unexpectedly, the various shocks in the economy and society, combined with the technological development, have led to individuals and establishments being positive about submitting information and do not see any risk in the information being linked. Many have realised that tabloidisation and simple partial reasoning is not sufficient, and would like more reliable, uniform and thorough analyses. Health, the environment, distribution and democracy are all topics of interest to individuals. Researchers are using increasingly larger and richer data sources in order to create analyses that encompass many more fields than was the case at the beginning of the century. Through the increased use, however, limitations in the data sources are emerging to an increasing extent, and Statistics Norway is given directives on using its "definition power", i.e. the power to define which statistics shall be produced in what way, with regard to the preparation of micro information. The need for a statistics-based public debate has increased the need for making official statistics that serve their purpose more visible and accessible. The statistics quality label is gradually given a stronger foothold in the population, and Statistics Norway is given the task of improving the population's understanding of statistics. The need for international consultancy on statistics rises dramatically.

5.3. The great downfall

A decade ago, the frameworks for statistics production in Norway differed somewhat to those of today. A great deal of the statistics were governed and controlled by public authorities, and user information and user needs were given more focus. In 2006 and 2007, the users made frequent requests for new roles and continuously extended areas for statistics production. More detailing and relevance for published statistics were two main requests. This situation led to several of the main statistics producers focusing on too many areas, which eventually resulted in statistics of poorer quality.

The statistics scandal

An article in the silly season in Dagbladet in July 2008 was the prelude to the revelation of a number of scandals concerning errors and omissions in official statistics and base figures for analyses and decisions. An analysis of child welfare issues in Hedmark county in the last 5 years by a sociologist at the University of Oslo was shown to be based on figures with errors in key areas, in addition to it being possible to identify individuals in several of the issues. The figures were provided by Statistics Norway. The routines concerning the release of the relevant statistics were extremely insufficient. Eager journalists followed the matter in late summer, and kept a watchful eye on Statistics Norway and other public sector activities with access to personal data.

A number of errors and omissions were revealed and exposed in the media. The scandal was a fact. The general feeling was increasing scepticism towards providing personal information, and diminishing confidence was expressed with regard to statistics in general. The Norwegian Competition Authority was bombarded by phone calls from worried respondents who had already submitted sensitive information. Important key establishments stopped providing data to the statistics producers.

Privacy protection becomes election issue

In the election campaign from 2008 to 2009, privacy protection, data security and statistics were separate areas where the scandal articles were hot examples of the problem. A number of parties indicated that they wanted to see a tightening up. The incumbent government limited the supply of micro data to Eurostat on the basis that the security was not sufficient. A strengthening of privacy protection was proposed by the government. Stortinget decided that all central administrative registers in Norway should be regulated in separate regulations, in accordance with a template for the health registers. The registers should only be used for the purpose they were originally intended and the register owners should compile the statistics themselves. Links to other registers were prohibited, with the exception of those for research purposes. In order to ensure consistency in public registers, all registers must be checked against 7 central variables in the Central Population Register.

After the general election in 2009, Norway had a new government with New Public Management as an election issue. A new and eager modernisation minister was appointed in order to reform the public sector in Norway. A large number of official statistics were put out to tender, and Statistics Norway lost some of its basic allocations. A debate arose concerning the increased need for controlling the production and dissemination of statistics. Stortinget wanted the Statistics Council to have control of who should administer the statistical assignments.

Together with numerous other proposed restructurings of the public sector, Stortinget decided in 2010 to restructure Statistics Norway: a small part of the former organisation was rearranged as the State Statistics Inspection Board, which was responsible for the official approval of Norwegian-produced statistics. The rest of the activity was divided into the two public limited companies; SSB Data AS and SSB Analysis AS. The newly-created inspection board and the two new limited companies were faced with a situation of low confidence among the population and growing competition in the market for statistics.

Competition and international requirements

Various players emerged in the market for statistics during this period who carried out data collection and compiled data. The market was fairly chaotic for a while and respondents were sceptical.

The international requirements for coordination and the supply of data increased from 2010. For a number of years, Norway had not been particularly visible in international statistical overviews due to the tightening up in the supply of data after the statistics scandal in 2008. From 2013, it became clear that there was a need for a central coordinating body for both national and international statistics, and these assignments were given to the State Statistics Inspection Board.

The focus in the technological development had been on security since 2008. Intense efforts were made in ICT to develop super secure IT systems, which proved to be successful. The security in the data processing and electronic control capabilities revolutionised the production of statistics. Through exploiting the opportunities in the semantic web, new and effective systems for data collection were developed. In 2012, the dissemination of statistics was also put out to tender. The public authorities wanted to improve the coordination and control, and set up a coordination system for releasing all official statistics.

Now in 2016 there are many statistics producers who meet the demand for statistics. Many of the previous players have realised that specialisation, development of leading-edge expertise and focusing on a few selected core areas is the key to surviving the competition. In summary, the development in the last 10 years has favoured adaptable activities that have the ability to exploit the technology in order to secure and strengthen the core activity, and some have also used the technological capabilities to find new niches for the activity.

5.4. Free flow

Back in 2006, many were concerned about what would happen to the independence of statistics if the statistics were to be a purely market product. However, we now know that the market creates both better and more secure statistics, and above all, does so much quicker. Many players and brands have entered the market for statistics, and the national statistics agencies in 2016 have to a large extent been reduced to inspection bodies. New technology with Web 2.0/3.0 and the use of electronic tracking has contributed to this development. The statistics have become tabloidised, and privacy protection, in practice, no longer exists. However, few are worried by this.

Statistics from the State to market

The development in Norway and internationally has been staggeringly parallel, even if for widely differing reasons. The political agenda in the first decade after 2000 in Norway was characterised by high oil revenues. All good causes were to be financed by the petroleum revenues. More on health. More for the elderly. More for the young. The public duties increased more than anyone had anticipated. In the next round, this led to compulsory competitive tendering of a large number of tasks previously carried out by the public sector. New Public Management had a clear breakthrough in Scandinavia in 2010. Thus, the production of statistics by tender was also an attractive opportunity for players with high levels of expertise in methods. The public sector chose to maintain its mainly supervisory role, and is commonly known today as “the statistics police”.

Internationally, there was a similar development whereby China’s explosive growth made American congress politicians demand more comparable international statistics in order to clarify the scope of displacements of production between countries and the associated flows of trade and capital. The improved and more extensive statistics brought the enormous profits in the Chinese balance of payments to the table. Necessary measures, coordinated on an international basis, in order to rectify the major imbalances were implemented, including a major revaluation of the Chinese currency.

The UN served in a supervisory role for international statistics where a variety of players compete for the assignments in accordance with international requirements and standards. Not surprisingly, KPMG and Ernst&Young have won many of the tender rounds. They have proven to be quicker at adapting than the government agencies, and the quality of the statistics they produce is not second to the public producers of statistics. It has been accepted that all statistics are made publicly available both before and after the revision of the figures. China accepted this system in 2009 and bought up KPMG during the course of the year.

The new Internet

The growth of electronic tracking, secure web identification and the semantic web, which catalogues all types of primary data, has made the automatic generation of statistics much cheaper and infinitely quicker. A number of players compete to produce statistics that are mainly based on information available on the Internet, both customised for different markets, and also of a broad socially useful nature.

When the statistics producers have collected the data, respondents can correct their own data on an ongoing basis and users follow the processes as they happen. The burden of response for individuals and enterprises is reduced to giving consent. Those who do not grant consent still need to spend time completing separate forms. The internationalisation has led to organisations such as Eurostat and the UN being responsible for publishing and forwarding.

Availability

After a number of tragedies in the aftermath of censorship scandals, Google falls apart and is quickly replaced by Faster, which through its Fasterstat service emerges as part of its world renowned web brand. Faster has become the natural place for users who want figures on social development. International, independent expert panels give quality grades for the statistics in accordance with the UN’s principles, and hundreds of thousands of users discuss and criticise the statistics and the experts’

analyses on a daily basis. Various service providers have created a spectrum of visualisations that facilitate the access to the enormous volume of figures.

The cyber democracy has gone from being a fluffy cliché in the dot com hype in the 1990s, to a present day reality, if the number of debaters and users on “the net-state-community” is anything to go by. “It is doubtful whether there has ever been more individuals who are involved in understanding what the figures on society actually tell us”, is the conclusion of a well-known statistical researcher in a recent report on the use of statistics.

Tabloidisation

The digital divide – the differences in the population between those who use and do not exploit the possibilities provided by the Internet – has a far greater meaning now than at the beginning of the 2000s. As the educated elite start using the statistics portals and retrieve balanced information on distributions, averages and correlations, the day-to-day politics is formed by the fate of individuals. It is the emotive issues that continue to win. In the fight for attention, the figures’ message is nowhere near as clear as the tears. Politicians trained in emotional psychology have the greatest effect on voters. Communication advisers are never far away. The statistics and other information dissemination adapt to frequently changing issues, and are constantly seeking new ways of attaining breakthrough powers.

Growth in brands

Tabloidisation has increased the market value of politically relevant and leading statistics. Simultaneously, the statistics have become cheaper to produce due to the semantic web, supported by more effective statistical methods particularly linked to sampling and including missing units due to non-response. These have been the driving forces behind the blossoming of brands of statistics as we have now in 2016. The last user survey shows that we had 8 major brand names within the production of statistics that the majority of the population had heard of and perceived as credible. These brands are closely followed by an undergrowth of players, often financed by multi-national companies, in order to generate more specialised statistics.

It is difficult, even for those in the industry, to maintain an overview of which companies own which brands. One major change in the last 10 years has been that the majority of people perceive statistics to be the same as any other information product. Statistics can thus be ranked according to quality and price.

Is privacy protection important?

In the 1980s, people were concerned about the spread of surveillance cameras. The concern disappeared in the 1990s. Ten years later people were concerned about sensitive information being released on the Internet. This concern has also disappeared. We are used to information about us being released. Reservations concerning access are fully possible, but few have such reservations. Only those who are politically active in privacy protection and those with something to hide are concerned. In fact, we now prefer to approve access to our data instead of having to answer long questions or be interviewed. Openness and confidence are normal in the Internet of today and are here to stay.

6. Strategic possibilities

This report details four different development paths for the future market for statistics. All of the scenarios emphasise the development for very specific driving forces of major significance to Statistics Norway. Through background work within Statistics Norway and active information searches in our surroundings, the scenario groups have chosen to use the classifications *globalisation, technology, demand/competition and political agenda*.

Each scenario provides the opportunity to look at the positive possibilities that lie ahead; possibilities that can make Statistics Norway more forward looking, innovative and dynamic. The scenarios can also help to avoid potential pitfalls, and to assess measures for counteracting effects that we may regard as undesirable.

“*Trustworthy*” describes a situation with stringent privacy protection and a strong faith in the government controls, where statistics users demand more credible data and analyses.

“*We want to know*” draws a picture of a future where the legislation on privacy protection is made less stringent due to the threat to society. The point of departure for the scenario is the strong belief in the government controls. The market for statistics demands the capability to track and link micro data, and the demand for quality statistics for the renewed public discourse is increasing.

“The great downfall” describes a society with stringent privacy protection due to scandals in public registers, but where the market opening up to other players results in the production of statistics being put out to tender.

“*Free flow*” entails the flow of both personal data and statistics, i.e. diminished privacy protection and the opening up of the market to other players, which in this case gives a market for statistics with many suppliers where most of the information development is on the Internet.

The scenarios represent a number of strategic challenges, which Statistics Norway should address in the strategy discussion. Many of these are common to a number of the scenarios, while some ensue from only one of the scenarios. In combination, they should give a good basis for the ongoing strategy process.

“*Trustworthy*” entails special strategic challenges for Statistics Norway with regard to:

- Selecting new roles and tasks
- Balancing capacity targets (growth) with quality targets
- Good communication with the respondents
- Tackling synthetic linkage possibilities (micro data cannot be linked)
- Covering the growing need for data from sample questionnaires
- Covering the growing need for methodic and legal expertise

“*We want to know*” entails strategic challenges with regard to:

- Selecting new roles and tasks
- Balancing capacity targets (growth) with quality targets
- Focusing more on information security and ethics when privacy protection is under pressure
- Maintaining or building confidence as a reliable, public player
- Covering the need for more research/analyses
- Exploiting new data sources and data, based on electronic tracking and localised information
- Building up analysis expertise and more expertise on utilising new technology

“The great downfall” entails strategic challenges with regard to:

- Taking a supervisory role
- Handling breakdowns in trust
- Good communication with the respondents
- Relating to new players in the market
- Exploiting new data sources in competition with other players
- Selling new roles and tasks
- Prioritising within tighter frameworks
- Building up change and business expertise

“Free flow” entails strategic challenges with regard to:

- Taking a supervisory role
- Prioritising within tighter frameworks
- Relating to new players in the market
- Marketing the Statistics Norway brand

These challenges can also be grouped together and linked to specific questions:

- **Role clarification and changes**
 - Which roles and tasks will Statistics Norway take on?
 - How can we balance new roles in relation to existing roles without compromising on quality?
 - How can we adapt to a possible supervisory role?
 - How can we prioritise and, where necessary, make cuts in the event of changes in the framework conditions?
- **Confidence**
 - How can we maintain confidence levels if privacy protection and/or independence is coming under pressure?
 - How can we build renewed confidence after a breakdown in trust?
- **New data**
 - What data sources will be used, how and when?
- **Competition and collaboration**
 - How can we compete and/or collaborate with new players?
 - How can we build and market the Statistics Norway brand?
- **Expertise**
 - How can we obtain and maintain expertise that is required in relation to the above problems, as in new roles and surroundings (e.g. in the fields of method, IT, law, ethics and business expertise)?

All of these problems are related. They are formulated based on a longer time perspective than what has normally been the case in Statistics Norway’s plans and strategies. The list of questions can be regarded as a checklist that can be detailed and discussed during the strategy process, together with other input.

The work of the scenario group is to be regarded as a precursor to the strategy work. A strategy will not, however, give final answers to all challenges. More important than specific answers today is creating an environment for ongoing future and strategic assessments in Statistics Norway. The scenario process is successful to the degree it helps to create such an environment.

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