

National Standardisation Strategy of Denmark



Ministry of Economic and Business Affairs
Ministry of Science, Technology and Innovation

May 2006

National Standardisation Strategy of Denmark

May 2006

National Standardisation Strategy of Denmark

Please order the publication at
Schultz Information
Herstedvang 4
DK-2620 Albertslund
Phone +45 4363 2300
Fax: +45 4363 1969
e-mail: schultz@schultz.dk

The publication can also be downloaded from
www.oem.dk
www.vtu.dk

Language: English
ISBN (electronic version) 87-91340-53-5
ISBN (printed version) 978-87-91340-53-6

Designed and printed by Schultz Grafisk A/S

Printed in Danmark, May 2006

Ministry of Economic and Business Affairs
Slotsholmsgade 10-12
DK-1216 København K
Phone: +45 3392 3350
e-mail: oem@oem.dk

Ministry of Science, Technology and Innovation.
Bredgade 43
DK-1260 København K
Phone: +45 3392 9700
e-mail: vtu@vtu.dk

Table of contents

Foreword	5
Summary	7
1 The global challenge	11
2 The role of standards in the knowledge society	13
3 How is standardisation implemented?	23
4 New challenges facing standardisation	29
5 A first overall strategy for Danish standardisation	35
6 Action areas in the years ahead	37
Target 1: Better coordination and prioritisation of the publicly supported standardisation effort is to be ensured.....	37
Target 2: Standards are to contribute to a greater extent to increased competitiveness as well as the development of the knowledge society through the dissemination of new technology and swift and effective innovation	43
Target 3: Standardisation is to contribute to developing well-func- tioning markets for international trade and ensuring that Danish interests are safeguarded in the best possible manner.....	49
Appendix	56

Foreword

Today, we in Denmark have one of the most competitive economies in the world, but we cannot take it for granted that we can keep this position. Globalisation implies harder competition in future, but also new opportunities that we must utilise actively if we are to remain at the cutting edge with respect to growth, knowledge and entrepreneurship.

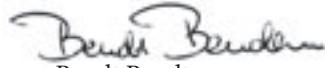
The Danish Government's ambitious goals mean that we must make an effort on all fronts – also with respect to standardisation, which is of great and comprehensive business policy importance. Standards play an important role in terms of corporate competitive power and product development. Standards ensure a common cross-national language, which means that they contribute to facilitating global trade. At the same time, standards contribute to ensuring that societal requirements are complied with regarding, for example, product quality, consumer safety and environmental friendliness.

Even though we already have a good standardisation system today, there is a need for developing it further to ensure that it matches the great challenges of the years ahead. There is a need for increased efficiency of processes and organisation. A need for greater transparency and visibility regarding the prioritisation of action areas and public funds. There is also a need for ensuring a stable financing basis for standardisation.

With this publication, the Ministry of Economic and Business Affairs and the Ministry of Science, Technology and Innovation present the first national strategy for the Danish standardisation effort. It is our long-term goal with the strategy to ensure that we in Denmark are among the countries that achieve maximum societal and business effect from the overall standardisation effort.

With this strategy, we also wish to raise the consciousness of authorities, the business community, and other actors with regard to the significance and opportunities of standards. As one out of few EU Member States with a strategy in the area, the Danish standardisation strategy will hopefully prove a source of inspiration to other countries' work on standardisation policy issues.

As a first step towards making the Danish standardisation effort more targeted and effective, the responsibility for Danish Standards and for international standardisation will be placed within the remit of the Ministry of Economic and Business Affairs.



Bendt Bendtsen
Minister for Economic and
Business Affairs



Helge Sander
Minister for Science,
Technology and Innovation

Summary

The objective of drawing up a strategy for the Danish standardisation effort is to establish a standardisation system that enables us to derive maximum benefit from the societal and business opportunities and potential offered by standards.

During the work on the strategy for the Danish standardisation effort, a number of challenges have been identified, which this strategy addresses through a number of initiatives. The challenges we face today are the results of developments on the global, but also the domestic scene. The tasks for the standardisation system of the future have changed and they have assumed a more complex nature, which makes new demands on the future.

Challenges for the Danish standardisation effort

The importance of standards to enterprises has grown significantly during the last few decades. No less than 80 per cent of Danish enterprises are based to a large extent or some extent on standards. The increased need for standards presents demands for better contact with the Danish business community in the form of more services regarding information, training, guidance, etc.

In several cases it is difficult to focus the Danish standardisation effort and see through how the prioritisation of the standardisation work is performed. In this connection, there is a need for considering how the Danish standardisation system can be made more transparent in future.

The knowledge society generates a need for new areas within standardisation, for example in connection with the information and communications technology (ICT), nanotechnology, biotechnology and the service sector. It is important that the standardisation system is conscious of the importance of including new growth areas and of taking their needs into account, and at the same time of liberating and reallocating standardisation resources from traditional standardisation areas to the new growth areas.

National and international standardisation organisations are under pressure these years. This brings financial pressure to bear on European, and national, standardisation to secure new sources of revenue and a solid revenue base.

More and more standards are harmonised in the EU or internationally, and new technologies and industries carry with them a need for new standards while, at the same time, there is a dramatic increase in the total number of standards, which leads to huge pressure on the Danish standardisation system.

If Denmark is to continue to prevail, there is therefore a need for focusing and for clarifying which areas are to be prioritised in future in the Danish standardisation effort. It is a prioritisation that must be in accordance with the development in the other European countries.

In spite of the implementation of the Internal Market, many Danish enterprises continue to encounter barriers to trade in the EU. Mutual recognition does not function optimally everywhere, and enterprises are quite often forced to test their products in several countries. It is a resource-demanding barrier to enterprises, and it means that society incurs economic losses.

On average, it takes six years to draw up a European standard. An effective standardisation process is a key precondition for enabling standardisation to retain its attractiveness and prove its significance to corporate competitiveness and innovation.

In line with globalisation and the new international division of labour and trade, competition will increase among the regions in the world on which standards are to set the trend on the global market. The challenge is, among other things, to promote the preparation of common standards with a content that is acceptable globally and which may foster global trade.

Three targets for the Danish standardisation effort

The strategy sets up three targets for the Danish standardisation effort:

1. Better coordination and prioritisation of the publicly supported standardisation effort is to be ensured.
2. Standards are to contribute to a greater extent to increased competitiveness as well as the development of the knowledge society through the dissemination of new technology and swift and effective innovation.
3. Standardisation is to contribute to establishing well-functioning markets for international trade and ensuring that Danish interests are safeguarded in the best possible manner.

Action areas for the years ahead

Against the background of these goals, the strategy sets up a total of ten initiatives that are to be initiated within the next two years. The initiatives focus at three different target groups:

1. The Danish standardisation system

The initiatives aim at strengthening government involvement in standardisation, including the establishment of a better prioritisation basis for the Danish standardisation effort. Government responsibility for standardisation used to be divided between the Ministry of Science, Technology and Innovation and the Ministry of Economic and Business Affairs. In order to foster synergy and greater coherence in the performance of tasks, remit responsibility for Danish Standards has been transferred to the Ministry of Economic and Business Affairs, which means that tasks in relation to Danish Standards and in relation to international standardisation policies will be undertaken by the Ministry of Economic and Business Affairs. Furthermore, a cross-ministerial committee is to be set up to ensure coordination of the public standardisation effort and stability in allocations for the Danish standardisation effort. At the same time, a new model for public financing is to be drawn up to ensure greater dynamics and a higher degree of project financing. The model is to be supplemented with initiatives ensuring a new revenue base for Danish Standards.

2. The Danish business community

The initiatives focus very clearly on the end users of the standards. New services are to be developed that are in demand among new important growth areas in the Danish business community, including ICT, nanotechnology, biotechnology, the service sector, etc. Moreover, there is a need for a targeted effort in relation to the needs of small and medium-sized enterprises (SMEs) for special types of standardisation services.

3. The international standardisation system

The initiatives concern the need for continued improvement of efficiency regarding standardisation in the EU as well as steps to ensure future financing of the European standardisation system. Furthermore, the European quality mark – Keymark – is to be promoted. The prospects of closer cooperation on standardisation between the Nordic countries are to be examined.

1. The global challenge

We face huge changes in the global economy with enterprises experiencing that their competition conditions are changing. Tasks and enterprises move to an increasing extent to places where the costs are lowest in order to maximise total corporate earnings.

This development is already in full progress. Especially large international enterprises started years ago preparing for this new world order. Enterprises have their goods produced to an increasing extent in China during the day, their software in Bangladesh at night, so that they are able to further develop the next day, and their international service centre is situated in India with round-the-clock personal service.

Global developments imply changed market and competition conditions, which makes great demands for strategic efficiency, both in the business community and at political level. It is a huge task to position Denmark in the new world picture. It compares to the change Denmark underwent from an agricultural to an industrial society in the previous century.

The Government's response to these challenges is to pursue several paths, but it may be summarised in the vision of Denmark as a leading growth, knowledge and entrepreneurial society. Turning Denmark into one of the leading high-technological countries in the world over the next 10 years is an important element of this.

The change means that we must strive to perform in a smarter and more efficient manner. We will do that, among other things, by adding more knowledge to products and services. The result will be breakthroughs and innovation keeping us at the cutting edge of international developments and thus creating more knowledge-based jobs, which will contribute to placing Denmark in the forefront of increased international competition. This development implies that structural changes must be made in broad segments of the Danish business community.

2. The role of standards in the knowledge society

A number of preconditions have to be met for the Government's vision to materialise. Our research and educational system must be at the cutting edge. Cooperation between enterprises and knowledge institutions must be intensified. Danish enterprises must become increasingly better at developing products and innovating as a means to improve their international competitiveness and trade.

The importance of standards to the competitiveness of the business community

In connection with corporate product development and competitiveness, standards play a large, but often unnoticed, role. Standards systematise things, both in enterprises and in society at large. If we did not have standards to ensure that products, processes, weights, measures, machines, etc. function and interact, we would see a dramatic fall in effectiveness and functionality in society and the business community.

What is a standard?

The formal definition of a standard as presented by Danish Standards is "A document for common and repeated application that provides rules, guidelines or characteristic features of activities or the results of these activities. The document has been drawn up by consensus and adopted by a recognised body. The objective is to achieve optimal order in a given context".

There are various types of standards: product standards (indicating product requirements, marking requirements, etc.), testing standards (indicating methods to, for example, show that product requirements are complied with), management standards (for example ISO 9000) and terminology standards (describing, for example, the terminology of a field).

The status of standards varies – there are for example:

Exclusively Danish standards

European/Danish standards (EN/DS)

International standards (for example ISO standards)

Company-specific standards

Market and industry standards

Other countries' standards (for example DIN, AFNOR)

ETSI standards (telecommunications standards)

In general, standards are used on a voluntary basis. There are, however, exceptions to this rule, for example when laws or directives require that particular standards must be complied with.

Standards also play a key role in the development of international trade. Standards provide a common transnational language for trade and contribute to communicating knowledge, technology and business practice between enterprises and countries. At the same time, standards sharpen competition, thus resulting in lower production and distribution costs, which will benefit the economy in general.

The history of standardisation

Standardisation is an activity that is several hundred years old. However, it was towards the end of the 19th century that standardisation efforts intensified. During the first many years, the driving force behind standardisation was the needs of late industrialisation for systematics with respect to construction, steel, metal and electronics. After the 1950s and especially after Denmark became a member of the EEC in 1973, the Danish standardisation environment was gradually internationalised in line with increasing awareness of the need for good international and European standards that would be capable of removing technical barriers to Danish exporters .

In the course of the last 10 years, the increase in the number of standards has exploded. Within the last 15 years, there have been greater changes and swifter growth in standardisation activities than in the previous 100 years altogether. Standardisation has developed into a worldwide activity that is irreversibly linked to technological and economic developments in society.

In Europe, the development of standardisation intensified seriously with the implementation of the Internal Market of the EU, and thus with the free movement of goods and services in Europe. When a product complies with a European standard, it may be freely sold in other EU Member States, and thereby avoids a number of time and costconsuming extra testing and national control measures.

A German study points out that the use of standards by the business community is of great importance to a country's economic growth.

A study from Fraunhofer Institute

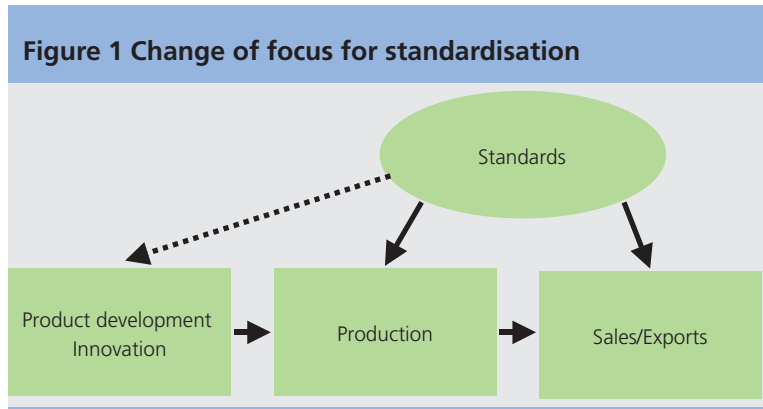
The study draws attention to the fact that the application of standards is a very important contribution to economic growth. Furthermore, the study endeavours to identify the factors that have played a role for the technological progress of Germany 1960-1996. The study shows that the use of standards and technical regulations was at least as important for technological innovation as patents and licences¹.

The same development is now seen on global markets, and today approximately 80 per cent of global trade is affected by standards.

¹ Source: Knut Blind: "Economic Benefits of Standardisation", Fraunhofer Institute for Systems and Innovation Research, Karlsruhe, published by the German standardisation institute DIN, 2000, ISBN 3-410-1486-4.

Standards as a source of corporate innovation.

The use of standards is also widespread among many Danish enterprises. The most important reason for enterprises to use standards is that it is required by the market or the authorities. However, enterprises also experience other use values. In recent years, focus has been placed on the significance of standardisation for the product development and innovation of enterprises. This change is illustrated in Figure 1.



Standards contain a number of requirements of the product or the process that the standards are concerned with. Knowledge of new technology, new methods and new processes is embedded in the standard and the standard is based on what is considered best practice at the time when it is drawn up. Consequently, the standard opens up for the possibility of integrating state-of-the-art technologies and research results in the design and development of new products and services. When the standard has been adopted, it is available to everybody that will pay for and make use of it.²

Where patents are a way of establishing ownership of technological innovation, standards are a way of making knowledge accessible and useful. Standards can be used by the entire market, and they place technology in a context that makes it easier to use a particular technology. Thus, both standards and patents constitute an altogether necessary basis for successful innovation.

An enterprise may take its point of departure in the regulations of the standard in the development of new products. This will provide the enterprise with a better basis for its innovation and with greater certainty that the new product will subsequently be approved and marketed.

² Some standards in the ICT area may, however, be downloaded free of charge via the Internet.

Viking Life Saving Equipment A/S

In the area of life rafts, there are two different markets – one for professionals and one for yachtsmen. Products for the professional market are heavily regulated. Ever since the sinking of the Titanic, a product type approval with tests has had to be complied with if products are to be sold on this market. For products targeted at yachtsmen, there are no similar rules. It has been up to the individual enterprise to establish its own standards. However, under the auspices of ISO, a standard is now under way in the form of construction regulations for the building of life rafts for yachtsmen.

The Danish enterprise Viking Life Saving Equipment A/S participates in this standardisation work and has used the standard as the basis for the development of its new life raft. It means that the enterprise has an advantage vis-à-vis the customer when the product is to be sold. At the same time, the standard is based on state-of-the-art knowledge and by using the standard, the enterprise can avoid expensive mistakes in the construction of the new life raft.

There is a correlation between enterprises' use of standards and their innovation. Enterprises that rely on standards to a high degree are also the enterprises that are most innovative. And vice versa – the least innovative enterprises rely on standards to a minor degree.

This tendency is even stronger when it is a matter of enterprises' participation in standardisation. Thus, 39 per cent of enterprises that have marketed new products have participated actively in standardisation, whereas this is only the case for 19 per cent of the enterprises that have not participated in the standardisation work.

Table 1: Correlation between innovation and participation in standardisation work

		Have participated actively in standardisation work	Have stayed informed of standardisation work	Have neither participated actively nor stayed informed	Total
Has the enterprise marketed new or significantly improved products?	Yes	39%	44%	17%	100%
	No	19%	46%	35%	100%

Source: ECON Analysis: Standardiseringens betydning for virksomhederne og samfundet (The Significance of Standardisation to Enterprises and Society), commissioned by the Ministry of Science, Technology and Innovation 2004.

These results correspond quite well to the findings from similar surveys carried out in Germany and Britain. It appeared for example from a British survey from 2003 that 60 per cent of all the innovative enterprises that participated in the survey used one or several types of standards as the source of information for their innovation.³

Standards contribute to ensuring that new technology is put to use

Technology plays and has always played a substantial role in modern society. And technological development proceeds at increasing speed. The most obvious example is the information and communications technology (ICT), which within the last 10 years has revolutionised people's way of communicating and acting. Methods of cooperation and patterns of trade between enterprises and customers have changed. New ways of sharing knowledge and information have appeared. Information has become more accessible on the one hand, but on the other also more comprehensive and more difficult to handle.

Standards are a precondition for the dissemination and application of ICT, just as standards are decisive for a change from optimisation of enterprises' internal procedures to optimisation of the entire value chain. This applies, for example, to standards for electronic payment.

Standardisation may contribute to ensuring that new technology comes into use. This is for example the case if the standardisation of a technology takes place at an early point in time before producers and consumers seriously put it into use.

Standardisation of future technologies

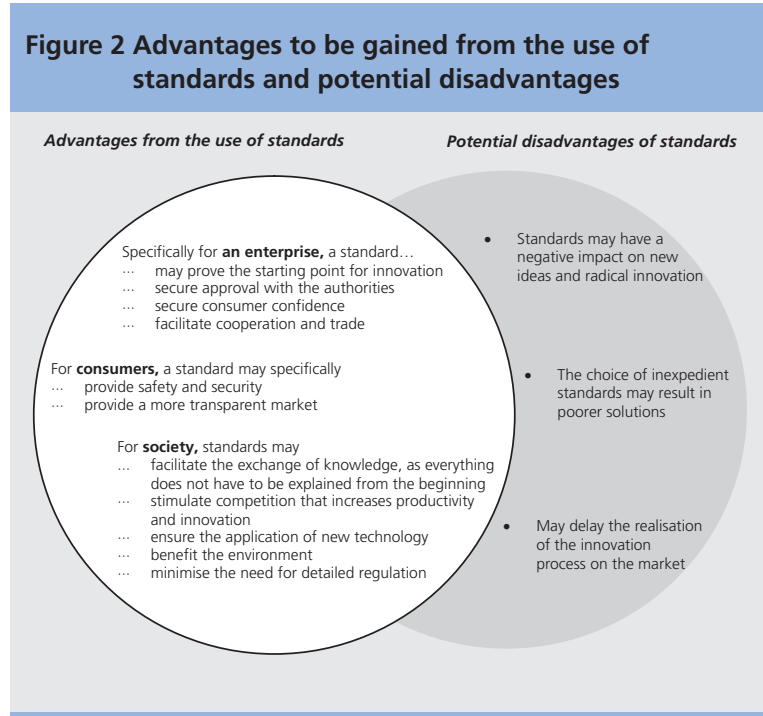
The standardisation of the DVD format is an example of the standardisation of a technology at a very early stage. The objective of this standard was to support the development and the commercialisation of new technological innovation.

Since the first DVD format, which among others Pioneer and Hitachi initiated, much has happened generating confusion on the markets. Philips and Sony among others would not support this format. Therefore, they made their own format. The result is that today there are many different DVD formats, which for example cannot always be used on ordinary DVD players.

It is important that standards are maintained and changed on an ongoing basis in line with technological developments. If standards are not maintained and therefore rely on outdated knowledge or impose obso-

³ NSSF, DTI: Standards and Innovation Report, 2003 www.nssf.info

lete restrictions on product content, processes, etc., they may curb the development. The figure presented below shows advantages and possible disadvantages relating to standards.



The benefits of standards to society

It is not only the business community, but also society at large, which benefits from standards. If standards are drawn up correctly, they may contribute to raising product safety and quality.

In order to make sure that standards do not merely serve the interests of the corporate sector but also foster more general societal goals, representatives of authorities, interest organisations, consumers and others often participate in the standardisation work.

The impact of standards on the environment

Many standards are important for the environment. The reason is that the requirements of standards impact on the choices that are made in connection with the design of products and processes. As examples may be mentioned standards for oil and gas burners. These standards may include threshold limit values for Nox (nitrogen oxides, which are substances that have a negative impact on the environment), energy efficiency requirements and a ban on the application of asbestos and cadmium.

Another important societal interest in standardisation is that standards may be used as a supplement to legislation. Traditional detailed regulation may be replaced by legislation that establishes the overall framework conditions and aims, which will then have to be supported by detailed standards. In such cases, the law will refer directly to the standards in question. This is especially the case in areas that involve complex societal problems with regard to, for example, the environment, security, health, product quality, etc.

In Denmark, framework legislation that is supported by standards is used among other things in the executive order on radio and teleterminal equipment and electromagnetic matters.

The New Approach

European standardisation has played a very important role in supporting legislation under the so-called "New Approach" that has been introduced to implement the Internal Market with respect to goods. In contrast to actual detailed regulation, the New Approach means that EU directives exclusively contain the politically established requirements of protection of public health and safety as well as consumer and environmental protection. The political requirements are subsequently translated into technical requirements through harmonised standards. The New Approach is thus a legislative model combining general interests with the private business sector's needs for standards. This opens up for flexibility in the design of the goods.

In this type of legislation, the authorities share the regulatory role with the private sector and other stakeholders participating in the standardisation work. The advantage is that the legislation becomes simpler and technology neutral, and it opens up for more implementation options. The legislation becomes also more stable as legislative amendments are not necessary every time a technology is developed. Instead of amending the legislation, it will suffice to change the standards.

When public regulation is filled by voluntary standards in areas such as consumer safety, health, the environment or the working environment, it poses however a challenge to democracy. The framework is no longer filled by democratically elected representatives but by interested parties representing enterprises and representatives of authorities, citizens and employees. Therefore, it is very important that a comprehensive circle of stakeholders have the opportunity of participating in the standardisation work.

Insufficient representation on standardisation may result in poorer consumer protection and undermine the legislation, and in the last resort lead to a return to detailed regulation.

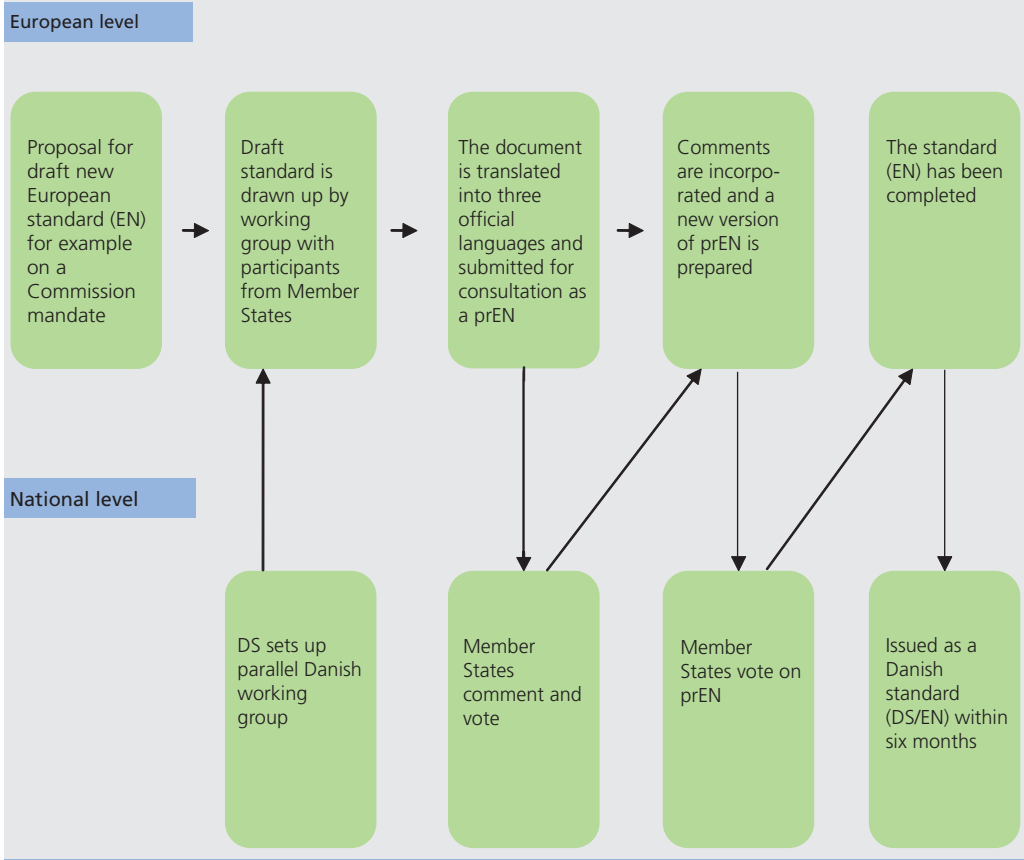
In Denmark, there has been a tradition of considerable government involvement in standardisation. Direct government contributions are granted to finance Danish Standards, which is in charge of the greater part of the Danish standardisation work. Moreover, the Ministry of Science, Technology and Innovation as well as the National IT and Telecom Agency are responsible for the Danish standardisation work in the ICT area. Furthermore, various line ministries participate actively in the work of specific standardisation committees in relevant areas, thus providing financial and professional contributions to standardisation. It is important to ensure this participation also in future.

3. How is standardisation implemented?

Standards are developed in a complex system integrating international, European and national levels. The development of a European standard is typically initiated by the European standardisation organisation, CEN, taking the initiative at the request of the EU Commission to draw up a standard, often as a follow-up on the adoption of an EU harmonisation directive.

The drafting is carried out by standardisation committees and working groups, and the individual Member States participate if they take an interest in the subject. If Denmark chooses to participate in the work, a national standardisation committee will be set up, which will work as a parallel to the EU committee. On the Danish committee, the Danish position on the future standard will be discussed and clarified. Efforts will be made to ensure that the composition of the committee represents all stakeholders in the area. For the standard to take effect, it must be adopted by a minimum of 71 per cent of the Member States' votes.

Figure 3 Presentation of the development of European standards



European and international levels

At European level there are, apart from CEN, two other formal standardisation organisations, namely CENELEC and ETSI. Together they have a monopoly on the drafting of harmonised European standards which on the basis of a mandate from the Commission are to be drawn up in order to implement the Internal Market. CEN has by far the largest business area of the three organisations, as all European standardisation with the exception of the electrotechnological area (CENELEC) and telecommunications (ETSI) belongs under CEN.

The financing of the infrastructure with respect to CEN and CENELEC is based on membership fees from the national standardisation organisations and support from the EU Commission. The financing of ETSI rests primarily on the participants paying a membership fee.

The most important standardisation organisations on the international stage are the three international organisations, ISO, IEC and ITU, which may be considered counterparts to CEN, CENELEC and ETSI, respectively.

Danish Standards

Every European country has a national standardisation organisation that safeguards the interests of the country in the European and international context. In Denmark, it is Danish Standards that is in charge of this task in all areas apart from the telecom area, in which the task is taken care of in cooperation with the national IT and Telecom Agency.

Today, Danish Standards has a total of 200 staff members who are primarily working in Denmark. In 2003, the total turnover of the institute was EUR 18.5 million, out of which approximately EUR 9 million related to standardisation and approximately EUR 3.2 million concerned activities at the customer centre, including among other things the sale of standards. The remaining turnover of Danish Standards relates to activities in the certification area.

Compared with other countries, Danish Standards is a minor actor in the standardisation area. The British standardisation organisation, British Standards Institute (BSI), has for example 5,000 employees and a total turnover of GBP 233 million.

In connection with the national and international standardisation work, Danish Standards receives funds from the business community, interest organisations, knowledge institutions and authorities. Furthermore, Danish Standards reinvests its own profits from the commercial activities of the institute. In 2005, the Ministry of Science, Technology and Innovation contributed approximately EUR 4.3 million through performance contract funds, whereas approximately EUR 3.1 million was financed by enterprises, other public institutions, etc. The remaining standardisation activities are financed by foreignsource revenue, own financing by Danish Standards, etc.

From an international perspective, Danish Standards has a high degree of public financing of the institute's standardisation work. Thus, Danish authorities contributed a total of approximately EUR 5.1 million (in the form of performance contract funds and specific service contracts), which accounts for approximately 57 per cent of total financing for the standardisation work. In comparison, the government financing share

in for example Sweden, the UK and the Netherlands is approximately 10-12 per cent⁴.

This relatively high level of public financing in Denmark is in part a historical matter, in part based on the relatively large preponderance of small and medium-sized enterprises in Denmark.

Private financing of the Danish standardisation effort amounts to approximately EUR 2 million. In addition to this comes the financing that enterprises, organisations, etc. provide by way of working hours and travelling activities, etc. No statement exists of how large a contribution these activities constitute, but Danish Standards believes that fees paid by members in connection with the committee work only account for approximately one tenth of total cofinancing. The remaining part of corporate co-financing is provided through hours spent and expenses for travelling.

The prioritisation mechanism of the Danish standardisation effort is driven in part by the market, in part by more overall societal interests. In connection with the conclusion of performance contracts between the Government and Danish Standards, the Government has influence on the overall prioritisation of the Danish standardisation work.

However, the Government does not interfere in the distribution of funds between various technical areas. It is the standardisation environment and the participating actors that decide the priorities in this matter. The procedure is that expert committees and sectors internally in Danish Standards submit proposals for prioritisation, and that the management distributes the resources available against this background. The distribution of resources is approved by an advisory panel of chairmen of the individual sector areas.

In other European countries, the prioritisation mechanisms are more visible and transparent. This applies for example to Sweden, the UK and France. In Sweden, an overall standardisation committee including private and public stakeholders has been set up. Public grants for standardisation are collected there together with guidance on what interests should be safeguarded.

Standardisation in the area of ICT

In the area of ICT, regional and international standardisation initiatives have been of great importance to the development of attractive markets for private high-technological enterprises. The recognition that elec-

⁴ The accounting methods regarding governmental co-financing may vary from one country to another, which explains why deviations may occur.

tronics and software are to be based on open standards to maximum extent has spread to even the largest enterprises.

The application and development of standards and agreed exchange formats in relation to the public sector has primarily prevailed in the health sector. The benefits achieved by the private sector from the harmonisation of the market with well-defined standards are also in the years ahead to be achieved by the public sector. With the vision of digital administration, it is important that the entire public sector is behind the standardisation initiatives. This is where the Ministry of Science, Technology and Innovation and the National IT and Telecom Agency play an important role as the driver, facilitator and coordinator of a number of standardisation initiatives with joint public cooperation constituting a cornerstone.⁵

The public sector has an important task in identifying key areas where the launch of standardisation initiatives is significant for creating a successful market with low entry barriers and where a broad array of suppliers have the possibility of offering solutions. The public sector sets up a framework that the private sector may use to its advantage, not only to be able to communicate with the public sector, but because the common standards resolve interoperability problems and thereby ease the mutual exchange of data in the private sector. The prerequisite is that open and technically successful standards are defined in cooperation with users and suppliers in a non-bureaucratic and dynamic process with a high cadence.

This process is best handled under the auspices of public bodies. The main reason is in part the need to be able to act close to the political decision processes, in part the need for combined knowledge about business requirements and technical matters concerning standardisation.

⁵ For further information concerning joint public IT standardisation, please see e.g.: www.oio.dk/standarder and "fællesoffentlig it-standardisering - en vejledning om OIO it-standarder" (Joint Public IT standardisation – A Guide on OIO IT standards), Ministry of Science, Technology and Innovation 2005

4. New challenges facing standardisation

Over the last 10 years, the main task for the standardisation effort – both nationally and in Europe – has been the design of the standards that together with the directives constitute the pivotal point of the Internal Market in the EU. However, the stage is changing these years. The emphasis is changing from the huge task of creating the Internal Market in the area of goods towards other areas. On the national stage, there are also changes. New enterprises with new needs make demands on standards and the standardisation system.

The system we know today faces a number of challenges generated by both global and domestic developments. The tasks for the standardisation system of the future are changing and assuming a more complex nature.

Greater division of labour among the countries

The volume of standards has grown considerably in recent years. In the period from 1995 to 2003 alone, the volume of current standards in Denmark more than doubled, and today there are more than 17,000 standards in Denmark. An increasing number of standards are, furthermore, harmonised in the EU or internationally, and new technologies and industries generate a need for new standards.

More standards mean more work – both in the drafting phase and in the maintenance phase. Concurrently with the rising volume of standards, the number of standardisation committees increases also in the individual countries.

The increasing volume of standards brings pressure to bear on the entire standardisation work. It is in particular small countries' standardisation organisations that feel the pressure, as it is time and resource consuming to keep up with the drafting and maintenance of this huge number of standards.

For good reasons, small countries have less capacity than large countries, and a smaller corporate basis for financing the activities. Moreover, it is difficult to achieve real influence on the individual standards as it requires a great deal of preliminary work from the participants. Therefore, there is a need for focusing and for clarification of which areas are to be prioritised in the future Danish standardisation effort.

In the longer term, i.e. within the next 10-20 years, it is not unlikely that we will see a higher degree of division of labour between the countries in the standardisation area. Large countries like for example the UK, Germany and France will probably be able to maintain an infrastructure that covers all areas of standardisation. We will see smaller countries, like Denmark, playing another role on the international stage than today. Instead of comprehensive safeguarding of interests, including participation in more and more specific standardisation committees, national standardisation organisations will have to specialise to a higher degree within fewer, but carefully selected specialist areas. In these areas, it will on the other hand be possible to achieve a higher degree of influence.

More enterprises to be affected by standardisation

The significance of standards to the enterprises has grown considerably over the last few decades. No less than 80 per cent of Danish enterprises depend to a high degree or to some degree on standards. This applies both to large and small enterprises broken down broadly by different industries⁶. Enterprises' growing international involvement and globalisation imply that they have to relate to more and more of the standards that are applicable in various countries, also outside Europe.

When the significance of standards increases for enterprises and when more enterprises use standards, there will be a need for changing the way in which the Danish standardisation system functions today. Today, the standardisation task is very much organised on the basis of the development of standards – at European, international and national level – as well as on the subsequent sale of adopted standards.

In future, there will be a need for broader and more indepth contact with the Danish business community in the form of, for example, more information, training and consultancy services.

Enterprises that do not have the resources themselves to participate directly in the standardisation work are in need of help to become acquainted with the content of the standards. Traditionally, Danish Standards has played a role in this communication of knowledge. With the prospects of increasing global trade, the need intensifies for knowledge that adjusted to specific needs may be channelled into the individual enterprise. This dissemination of knowledge must increasingly be accompanied by after-sales service by way of guidance on the use of standards and the relationship with, among other things, legislation and conditions on the individual export markets.

⁶ ECON analysis: Standardiseringens betydning for virksomhederne og samfundet (The Significance of Standardisation to Enterprises and Society), 2004.

A need for greater transparency

The Danish standardisation system is in many respects tied down by long-established traditions. By tradition, the standardisation environment itself has in practice determined the prioritisation of the Danish standardisation effort. The advantage of this decision structure is that it is a matter of a process involving many actors. The disadvantage is that the process sets the stage for very broad and diverse safeguarding of interests, which in some cases may mean that it becomes difficult to focus the Danish action and difficult to see through how prioritisation is conducted.

New growth areas must be taken into account by standardisation

The knowledge society creates a need for new areas within standardisation, for example in connection with the information and communications technology (ICT), nanotechnology and biotechnology.

Another new growth area within standardisation is the service sector. However, among services operators and other important actors there is little recognition of the significance of standardisation. This results in a low level of involvement and insufficient demand for service standards.

Up to now, these new industries and growth areas have not loomed large in the standardisation effort. Often, they have other needs than the established industries and make new demands on the standardisation effort. It is very important that the standardisation system is conscious of including new growth areas and pays attention to their needs.

It is a significant challenge in this connection to liberate and redistribute standardisation resources from traditional standardisation areas to new growth areas.

Special challenges in the ICT area

Within the ICT and telecom area, a number of special standardisation conditions apply. The greater the number of users of a standard, the greater the benefit to the individual user. Therefore, there will be a tendency in the market to gather round predominant standards. This may prove advantageous because the result is that a great number of users can communicate with each other. On the other hand, it may also prove inexpedient, as users will be locked in the choices they have made, which makes it difficult to change to other standards.

An altogether key objective in the ICT area is therefore to ensure a well-functioning market. That is a market that enables many suppliers to of-

fer solutions regarding a given task. In that connection it is important that the key standards that constitute the interfaces between the various systems are open.

Continued trade barriers in the Internal Market

In spite of the implementation of the Internal Market, a great number of Danish enterprises continue to encounter trade barriers in the EU. This is due, among other things, to the fact that it takes a long time to adopt the harmonised standards that are to implement the directives in the Internal Market.

Furthermore, there are problems regarding the requirements of compliance with national standards, extra testing and private quality marks demonstrating conformity with standards.

The requirements may only very seldom be attributable to "unlawful" authority requirements, but are perceived as necessary for enterprises to obtain market entry. Therefore, the requirement of extra testing and marks imposes extra costs on the enterprises, without providing the product with any added value.

The barriers vary depending on the export countries in question. A survey shows that Danish enterprises in 61 per cent of cases relating to exports to Germany encounter marking requirements. With respect to France and the UK, the figures are 45 per cent and 30 per cent, respectively⁷.

There is a need for discontinuing the many overlapping quality marks by promoting an Internal European quality mark that shows compliance with standards. The proposal is controversial, among other things because sales of private compliance marks constitute a considerable revenue base in some of the large countries' certification organisations.

More effective standardisation in Europe and at global level

Denmark has had considerable impact on the realisation of the vision to create an Internal Market for the free movement of goods in Europe. In cooperation with Danish Standards, Danish authorities have succeeded on a number of key issues, and especially a speedier standardisation process belongs to Denmark's achievements.

Over the last 10-15 years, there has been a huge improvement in efficiency. However, it still takes six years on average to draw up a standard in the European standardisation organisation CEN.

⁷ Source: Vækst gennem globalisering (Growth Through Globalisation), p. 266, Ministry of Economic and Business Affairs, October 2003.

This problem is especially noticeable in the ICT area because the technological development proceeds at such a speed that many suppliers cannot wait before they market a product. At the same time, in connection with projects in digital administration, public authorities cannot wait before they find serviceable solutions. Therefore, the need for swift and flexible development of standards is particularly pronounced in the ICT area.

Consequently, it remains necessary to focus on greater efficiency, especially in the light of the fact that the European standardisation organisations have been enlarged with 10 new EU Member States. An efficient standardisation process is an important precondition for standardisation to keep up its attractiveness and prove its significance to corporate competitiveness and innovation.

There is an inbuilt dilemma in the standardisation process, as two conflicting interests have to be safeguarded. On the one hand, standards are based on a principle of consensus and widespread participation of stakeholders. For unless standards are broadly recognised by the countries and the enterprises, there is a risk that they will not be applied. It is in the nature of things that consensus processes take time. On the other hand, enterprises demand more standards and more swiftly developed standards. This makes demands for efficiency and productivity.

Financial pressure on the standardisation organisations

The overall impression is that standardisation organisations, both national and international organisations, are under pressure these years. National standardisation organisations base a large proportion of their earnings on the sale of standards, but in line with the harmonisation of more and more standards in the EU, there is huge commercial pressure on the national standardisation organisations as it is in practice a matter of sales of identical products.

At the same time, it is difficult to attract attention among enterprises and other stakeholders to standardisation, and the usefulness for industry to participate in standardisation projects is not always obvious. This applies both to Denmark and Europe.

This brings financial pressure to bear on European as well as national standardisation with a view to securing new sources of revenue and a solid revenue base.

The integration of new business areas at European level and global challenges

The Internal Market project in the area of goods will change in the years ahead and enter a phase where standards are to be maintained and updated on an ongoing basis in order to ensure that they continue to meet the demands of the market.

The internationalisation of the service sector is on the increase these years, and there will be a need for common European and global standards in order to develop a successful market in the area. However, there is no overall prioritisation and recognition of which types of standards are more specifically needed in the area.

Concurrently with globalisation and the new international division of labour and trade, competition will increase among the regions in the world on which standards are to set the trend on the global market. The challenge is, among other things, to promote the preparation of common standards with a content that is acceptable globally and which may foster global trade.

5. A first overall strategy for Danish standardisation

Over the last 10-15 years, the Danish standardisation system has achieved important results in the national and international standardisation system. However, with the new challenges, there is a need for an overall strategy for the Danish standardisation effort if we are to continue to benefit maximally from the limited resources allocated to the standardisation work.

In a world that faces huge changes in the existing trading pattern, the future market will include the entire world, and the need for standardisation will increase concurrently. The question is how we in Denmark can adjust most efficiently to the new agenda that is manifesting itself in the area of standardisation.

The ability to derive most benefit from the potential offered by standardisation will be an important element in creating innovation and competitive advantages for Denmark and the Danish business community. The first strategy for the Danish standardisation effort is to ensure that we in Denmark will be among the countries that achieve maximum societal and business effect from the overall standardisation effort.

It is an ambitious goal and it can only be realised through coordinated effort. The strategy, therefore, covers a broad spectrum and comprises the altogether national standardisation effort, with focus on the part that is based on public co-financing as well as on the Danish effort in relation to the EU and the WTO.

At *international level*, influence on standardisation is naturally indirect. There, Denmark is one out of many countries that seek to impact on the standardisation agenda. Danish influence manifests itself in the presentation of proposals for new ways to perform tasks and in endeavours to gain representation in decisionmaking fora. Through enhanced influence on the decisions, we may hope to have an impact on the development in excess of what is justified by the size and economic role of our country.

At *European level*, the opportunities of exercising influence are more direct as a result of the dynamic interaction of standardisation with the world of politics. The Danish standardisation environment is to contri-

bute input to the political process to ensure that the initiatives are taken in exactly the areas where the effort will make a difference in relation to the overall vision.

At *national level*, the challenge may be summarised in the heading "from operation to development", when the strategy for the publicly financed action is to be formulated. From a financing point of view, it means that direct participation in the standardisation work and payment for the value that the standard generates for the individual must, to a larger degree, be borne by those who benefit from the work.

The financing role of public authorities must, to a greater extent, be re-defined from one of operation to focusing on development. Both the development that is linked to corporate innovation, and the development that is necessary in order to cultivate new business areas. The entire service sector is an example of such a focus area where standards may be used as leverage.

Today, several ministries take an interest in and, therefore, co-finance the Danish standardisation effort. Up to now, there has been no joint prioritisation and coordination of the government effort. It is an important objective of this strategy to achieve concerted action and coordination of the government effort in the area of standardisation.

6. Action areas in the years ahead

In order to meet the new demands and needs in the best possible manner, three action areas focusing on three target groups have been identified. Each action area contains a number of specific initiatives that address some of the challenges that have been identified in the strategy. The strategy and the initiatives set up must reach the following three targets:

1. Better coordination and prioritisation of the publicly supported standardisation effort is to be ensured.
2. Standards are to contribute to a greater extent to increased competitiveness as well as the development of the knowledge society through the dissemination of new technology and swift and effective innovation.
3. Standardisation is to contribute to establishing well-functioning markets for international trade and ensuring that Danish interests are safeguarded in the best possible manner.

The achievement of the three targets is to take place with maximum regard for the fulfilment of societal needs such as, for example, the environment, consumer safety, health, etc.

Target 1: Better coordination and prioritisation of the publicly supported standardisation effort is to be ensured

Target group: The Danish standardisation system

Efforts are to be made for continued improvement of efficiency regarding the Danish standardisation effort, and transparency and overview must be achieved in order to prioritise on a sound basis. Steps must be taken to facilitate the assessment of the standardisation work in relation to the target of maximum standardisation and innovation value for money.

Strengthened government involvement

There is a need for reinforcement and increased focusing of the government standardisation effort. The responsibility for the standardisation policy area was previously shared between the Ministry of Science, Technology and Innovation and the Ministry of Economic and Business

Affairs. The Ministry of Science, Technology and Innovation was the central licensing authority and responsible for the area vis-à-vis Danish Standards, whereas the Ministry of Economic and Business Affairs had the responsibility for the horizontal tools that regulate the EU Internal Market, including policy development regarding European and global standardisation.

This division of labour was not optimal. Remit responsibility for Danish Standards has, therefore, been transferred to the Ministry of Economic and Business Affairs as of 1 January 2006, which means that all standardisation policy tasks in relation to Danish Standards and international standardisation will be performed by the Ministry of Economic and Business Affairs. This presents opportunities of synergy and increased quality of government handling of tasks in the standardisation area. At the same time, the decision to place the standardisation effort in one ministry will ensure more coherent follow-up on the various initiatives of this strategy.

Irrespective of the transfer of remit responsibility, the relations and cooperation between the Ministry of Science, Technology and Innovation and Danish Standards will remain in place in relation to the innovative nature and significance of standardisation with respect to the development of new growth areas such as, for example, the nano, biotech and ICT area. Therefore, the Ministry of Science, Technology and Innovation will keep EUR 0.4 million of the basic appropriation for the performance of these tasks.

Initiative 1. The collection of national and international standardisation policy tasks in the Ministry of Economic and Business Affairs

Content	<p>As of 1 January 2006, remit responsibility for Danish Standards was transferred from the Ministry of Science, Technology and Innovation to the Ministry of Economic and Business Affairs. This means that standardisation policy tasks in relation to Danish Standards and in relation to international standardisation are now placed in one and the same ministry.</p> <p>This will foster synergy and raise the quality of government handling of tasks in the standardisation area. Furthermore, the initiative will ensure more coherent development and follow-up regarding the other initiatives of the strategy.</p>
Responsibility	Ministry of Economic and Business Affairs
Partner	Danish Standards
Date	January 2006

In addition to the performance contract funds that Danish Standards receives today from the Ministry of Economic and Business Affairs, Danish Standards performs tasks and receives funds from a number of other ministries, but no system has been established for actual cross-coordination of public stakeholders.

Given the infrastructure of the Danish standardisation system, there exists no coordinating body to ensure dialogue and knowledge sharing between the various authorities and Danish Standards. As responsible for the remit of Danish Standards, the Ministry of Economic and Business Affairs will take the initiative to set up an inter-departmental committee to ensure the necessary coordination of the public standardisation effort and to ensure stability in the allocations for standardisation. In cooperation with Danish Standards, it will be the task of the committee to discuss the prioritisation of which areas and tasks Danish Standards is to spend resources on. The intention is to supplement the committee with a sparring group including relevant business organisations, consumer interests, etc.

A new model for public financing

It is a government task to secure the existence of a national standardisation organisation. However, at the same time it is important that public

funds are spent in a manner so that society, and the business community as a whole, gets maximum value for money.

Compared with other European countries, public financing of the Danish standardisation effort is relatively high. There is a need for targeted standardisation work. Resources must be used in a focused and efficient manner. This is to be achieved in recognition of the fact that as a standardisation nation we are a small country and, consequently, we must prioritise our effort.

A process is to be initiated to liberate resources for the purpose of launching projects in new important areas. The goal is to ensure that Danish standardisation is, at all times, up-to-date in relation to developments in the business community and in society. Public financing must be changed from the current framework financing to a higher degree of project financing. The effect of this will be that a larger proportion of public funds will be allocated to the financing of development projects.

When designing a new model for the financing of the standardisation work, there will in general be a need for an assessment of the volume of funds to be allocated for basic tasks of standardisation, such as updating and translation of standards as well as participation in international standardisation work. There will, at the same time, be a need for an assessment of untapped efficiency opportunities.

Initiative 2. A new model for public financing

Content	A new model is to be developed for the public financing of Danish Standards in the direction of a higher degree of project financing. The new financing model is to ensure the establishment of a dynamic prioritisation structure, which among other things opens up for the transfer of funds from traditional areas to new growth areas. At the same time, steps must be taken to ensure that no resources are transferred from areas where it is necessary to sustain the effort. The need for SMEs to participate in the standardisation work must also be safeguarded in the new financing structure.
Responsibility	Ministry of Economic and Business Affairs
Partner	Danish Standards
Date	2006

In order to strengthen the basis for decisions in relation to the prioritisation of public funds, the Government will furthermore consider whether it is possible to develop a model for measuring the significance of standards with regard to the economy, competitiveness and innovation and with regard to selected sectors. Correspondingly, at European level there is a need for documenting the overall significance of standards with respect to European competitiveness and innovation in order to ensure that the business community and stakeholders will continue to support European standardisation. The Government will call on the Commission to carry out an analysis of the significance of standards with respect to economic growth in the EU, including standardisation initiatives that may give Europe a boost in a competitive context.

A new revenue base for Danish Standards

Compared with other countries, private co-financing of the standardisation effort is relatively low in Denmark. In continuation of a new model for public financing, the target is to gradually raise private co-financing of Danish Standards' activities. Therefore, several parallel initiatives will be launched for the purpose of achieving a new revenue base for Danish Standards.

Initiative 3. Analysis of the prospects of a new revenue base for Danish Standards

Content	<p>Various initiatives are to be launched with a view to gradually raising private co-financing and over time establishing a new revenue base for Danish Standards:</p> <ol style="list-style-type: none"> 1. It must be looked into whether there is a basis for a membership scheme with regard to Danish Standards. The individual sectors and associated enterprises are differentiated and have different needs, demands and wishes. A potential future membership scheme must take into account the variety of needs among users of the Danish standardisation system. A membership scheme is to link the enterprises more closely to Danish Standards and to ensure that a greater number of Danish enterprises learn of standardisation and benefit specifically from a targeted effort. 2. A transparent and logical price structure is to be developed to help the enterprises to gain an overview of the price of the individual services, of what the enterprise stands to gain from participating in the standardisation work, etc. <p>Other supplementary initiatives may be launched with a view to raising private co-financing of Danish Standards.</p>
Responsibility	Danish Standards
Partner	Ministry of Economic and Business Affairs, business organisations
Date	2006

Target 2: Standards are to contribute to a greater extent to increased competitiveness as well as the development of the knowledge society through the dissemination of new technology and swift and effective innovation

Target group: The Danish business community

An increasing number of enterprises are in need of standardisation services. Therefore, it is necessary to make a special effort to help the end users of standards. A significant element of this is the development of more advisory, training and information services addressed to the Danish business community with regard to standards and the significance of standardisation.

Action marketing – more enterprises to embrace standardisation

As already mentioned, more than 80 per cent of the enterprises interviewed in the background survey of the Ministry of Science, Technology and Innovation respond that they base their activity on standards to a high degree or to some degree. Many of the enterprises that do not make use of standards would benefit substantially from involving standards in their production, services, competition parameters, etc.

It is necessary to develop an understanding among Danish enterprises of the importance and significance of investing resources in work relating to standards. It is necessary to make a consciousnessraising effort among the enterprises that already participate in the standardisation work, but also among the enterprises that cannot see an immediate advantage from working on standards in a targeted manner. It is crucial that enterprises understand that it is worthwhile investing time and resources in work relating to standards.

The Ministry of Science, Technology and Innovation survey shows that the Danish business community is relatively polarised in relation to the application of standards and in relation to active participation in standardisation. The significance of standardisation is far from realised by approximately one fifth of the enterprises interviewed. This polarisation of the Danish business community is an important challenge to the Danish standardisation system, and there is a need for broader and deeper integration of the Danish business community in the standardisation work.

Initiative 4. Marketing campaign targeted at the business community

Content	A number of targeted marketing campaigns are to be implemented vis-à-vis defined target groups, for example new sectors and SMEs, etc. At the same time, it is necessary to develop an information capability addressing selected growth industries regarding relevant standardisation activities. The marketing campaign is to raise the consciousness of Danish enterprises of the significance of standards and over time ensure that private contributions to the financing of Danish Standards are increased.
Responsibility	Danish Standards
Partner	Relevant private actors (business organisations)
Date	2006

The development of new services for enterprises – SME-related action

Much of society's innovation derives from small and medium-sized enterprises. Nevertheless, there are too few SMEs that are aware of the significance of standards. Small enterprises do not sufficiently utilise the positive effects that the use of standards and participation in standardisation may have on, for example, the enterprise's innovation and application of new technology.

The needs of small and medium-sized enterprises with respect to standardisation must be identified, and standardisation services must be targeted at this group.

Danish enterprises, including SMEs, are increasingly demanding insight into and an overview of current standards in the EU and on global markets. Therefore, a set of new services for the purpose of Danish enterprises is to be developed, including special services for SMEs. It is a matter of new information, training and advisory services such as, for example, guidance on the implementation and specific application of standards, information products for enterprises that have no experience of using standards or advisory services regarding current standards in remote parts of the worlds. Furthermore, campaigns are to be launched to open the eyes of the Danish business community to the potential benefits offered by the application of standards, and especially the significance of standards to the knowledge society.

An example of a service targeted at SMEs would be the development

of a corporate guide for ways in which work can be undertaken on coherent strategies for standards, patents and licences in the individual enterprise.

Initiative 5: The development of new services for enterprises (SME-related action)

Content	<p>The needs of small and medium-sized enterprises within standardisation must be identified. Against this background, new types of services are to be developed for the enterprises in the fields of information, advisory services and training that match the needs of this group to a higher degree. A new financing model that takes into account the needs of SMEs for participation in the standardisation work must be considered in this connection.</p> <p>The initiative is closely related to the initiatives for a more transparent price structure and the implementation of targeted marketing campaigns.</p>
Responsibility	Danish Standards
Partner	Ministry of Economic and Business Affairs, business organisations, etc.
Date	2006/2007

Standardisation within new growth areas

Today, there is a tendency that standardisation is dominated by the traditional trades. New development projects are to be initiated, targeted at the new growth industries, new technology areas and new sectors for the purpose of connecting them more closely with Danish Standards. The consequence of this will be the achievement of greater professional and businessrelated depth in the Danish standardisation effort.

The knowledge society presents several new challenges to standardisation and it is important that the standardisation environments are conscious of new growth areas and their special needs. Examples of new areas would be the information and communication technology (ICT), robot technology, new production technologies and biotechnology. The Government’s focused effort to make Denmark one of the leading high-technological countries in the world must be followed up on by mapping and prioritising the standardisation efforts that can support the development.

At the same time, the new industries must be provided with better information, which will enhance their opportunities of either exercising influence on new standards and/or monitoring the standardisation processes that impact on markets for their products or services.

Initiative 6. Focus on new growth areas

Content	<p>A tool must be developed in order to identify new areas in the Danish business community that hold implications for the Danish standardisation effort. This must be used as the basis for decision in connection with the prioritisation of new development projects in Danish Standards. An example would be the sector of nanotechnology, in which there may be a future need for developing common standards.</p> <p>The work at identifying and involving new growth areas and industries in the standardisation work must also have a pedagogical effect. In order to achieve successful integration of standardisation in new growth areas, it is an important target to foster an understanding of the significance of standardisation at an early stage in the development of a growth area.</p>
Responsibility	Danish Standards
Partner	Ministry of Economic and Business Affairs, the interdepartmental committee
Date	2006/2007

The service sector

Services differ from other industrial production in that the service is often supplied at the same time as it is produced, for example a cleaning service. At the same time, services are personnel intensive, which results in a demand for strong management. These particular characteristics have led to the establishment of a number of best practices and adjusted management systems developed through the standardisation work, in which standards are drawn up for the work process itself.

In the EU, common service standards are one of the tools that may contribute to developing the Internal Market in the service sector. Against this background, the Commission gave a broad mandate to the European standardisation organisations in 2003 to draw up proposals for standardisation initiatives within the service sector.

In the EU and in the European standardisation organisations there is, in general, insufficient clarity on which service standards are to be drawn up. There is a lack of clear prioritisation to ensure that service standards are primarily drawn up in areas which are characterised by trade barriers and where there is particularly good export potential.

Among service enterprises and other important actors, there is a corresponding lack of clarity and consciousness of the significance of standardisation. This results in a low degree of commitment and a lack of demand pressure for standardisation initiatives. Service enterprises express the wish to have European and global standards developed and applied to a greater extent, but lack information on standardisation opportunities and projects⁸.

The Danish Government wishes both to ensure a European framework that promotes the Internal Market for services, and to organise the national standardisation effort in such a manner that it, to the greatest extent possible, safeguards the interests of Danish service enterprises, consumers and authorities in the service sector.

Initiative 7. Focus on the service sector

Content	In cooperation with representatives of the service sector, Danish Standards is to examine the specific standardisation needs of the sector. In this connection, a forum is to be established for standardisation in the service sector. The forum is to identify the needs of the industry, but also contribute to creating targeted and effective communication with the enterprises of the industry regarding the significance of standardisation.
Responsibility	Danish Standards
Partner	Ministry of Economic and Business Affairs, relevant business organisations
Date	2006

At European level, the Government will endeavour to achieve that the Commission in cooperation with Member States and the European standardisation organisations carries out strategic prioritisation of the standardisation effort in the service sector. Prioritisation has to take place on the basis of areas where a demand for standards from the market can be identified, where in particular barriers to exports of services can be identified, and where there is believed to be maximum potential

⁸ ECOM Analysis: Standardisering på serviceområdet – nye udfordringer for dansk erhvervsliv (Standardisation in the Service Sector – New Challenges for the Danish Business Community). Drawn up for the National Agency for Enterprise and Construction 2004.

for trade in services. The Government wants, among other things, the prioritisation of initiatives to be based on the application of preliminary feasibility studies, which means that all parties affected will contribute to identifying the needs of the market for service standards.

Target 3: Standardisation is to contribute to developing well-functioning markets for international trade and ensuring that Danish interests are safeguarded in the best possible manner

Target group: The international standardisation system

Progress in standardisation in the EU remains too slow

Huge efficiency improvements in the standardisation environments have been achieved over the last 10-15 years. This has been achieved primarily through a combination of a more business-oriented approach and comprehensive investments in and use of IT technology. However, progress in standardisation in the EU remains too slow. In CEN, where the most complex standardisation takes place, average production time for a standard is six years.

The enlargement of the EU with 10 countries from 2004 brings additional pressure to bear on the standardisation process and time scales. The challenges are, among other things, to make sure that the new countries become fully integrated in the European standardisation culture and to get the standardisation organisations of these countries to function according to the same principles.

Denmark has so far played an active role in promoting a more efficient standardisation process. Denmark has brought pressure to bear on the European standardisation organisations to make them demonstrate in particular a higher degree of efficiency. A result of this is, among other things, that CEN has committed itself to guaranteeing that standardisation projects launched after 2002 will be fully developed in a maximum of three years.

In its Communication on the Role of European Standardisation in the Framework of European Policies and Legislation⁹ of October 2004, the Commission states that there is great potential for making the European standardisation system more effective and efficient. The Commission is aware of some criticism with regard to the effectiveness and speed of the standards developing process, in particular in the areas of new technologies such as ICT. Unless European standardisation is in accordance with the needs of the market, including the needs of industry, there is a risk that enterprises will opt out of the formal standardisation environment. In that case, standardisation work would take place in more closed fora in the form of industry and consortium standardisation.

⁹ COM (2004)674

The Government finds that continuous focus should be given to improving and making European standardisation work more efficient. Therefore, the Government will carry on work to keep regard for efficiency on the standardisation policy agenda in the EU, and the Government will submit proposals for specific initiatives to intensify efficiency.

Initiative 8: Continued focus on the improvement of efficiency regarding standardisation

Content	<ol style="list-style-type: none"> 1. There is a need for monitoring the productivity and effectiveness of European standardisation organisations on an ongoing basis. The Government, therefore, wishes to propose that information on the speed of the harmonised standards developing process should be recorded on the Commission’s Internal Market scoreboard. The scoreboard is drawn up every six months and shows how the Internal Market operates on selected indicators. 2. In order to prevent delays and to systematise the standardisation work from the outset, consideration might be given to making use of one or more experts charged with drawing up the first draft standard. Work would subsequently be left to the open forum. The experts might also be mobilised if a task reaches a deadlock during the process. In cooperation with Danish Standards, the Government will look into the possibility of kick-starting the standardisation process by making use of teams of experts. This might be carried out as a pilot scheme under which the individual projects, supported by the expert model, are evaluated on their success in reaching the target of developing standards in three years on average.
Responsibility	Ministry of Economic and Business Affairs
Partner	Danish Standards
Date	2006

The promotion of a common European quality mark - Key-mark

Trade barrier problems still exist in the EU, including problems of compliance requirements regarding other countries’ standards, technical regulations and private marks demonstrating compliance with standards.

The Commission is increasingly conscious of the problem of the many private compliance marks and states in its Communication on the Role of Standardisation that the producers often feel obliged to use private marks to demonstrate that the product complies with current rules.

It would be an important step forward and a natural part of the development of the Internal Market if producers could, instead, use the common European mark, Keymark, as their point of departure. Keymark is a voluntary compliance mark ensuring that a product meets all the requirements of a European standard.

Initiative 9: Fewer trade barriers – a common European quality mark

Content	The Government finds that it is necessary to put an end to the great number of product marks at European level. The objective is to eliminate this type of technical trade barrier which shrinks the EU Internal Market and imposes extra costs on enterprises and consumers. Instead, Keymark, the common European quality mark must be promoted. Therefore, the Danish Government supports the Commission proposal ¹⁰ to implement a reform of the Keymark system in cooperation with the standardisation organisations and the Member States for the purpose of making Keymark the European quality mark that demonstrates compliance with standards
Responsibility	Ministry of Economic and Business Affairs
Partner	Danish Standards
Date	2006

Future financing of the European standardisation system

The financing of the European standardisation work that is undertaken by the European standardisation organisations CEN, CENELEC and ETSI is based, primarily, on contributions from the business community that bears its own payroll costs, travel expenses, etc. in connection with the drawing up of standards. In 2000, the market actors contributed 93 per cent of estimated annual expenses totalling EUR 700 million. In addition, contributions are made by national standardisation organisations, Member States and the Commission.

¹⁰ Commission working document: Action Plan for European Standardisation, June 2005

The Commission's support is based on framework agreements with the European standardisation organisations. It is granted towards the operation of the organisations' central infrastructure and specific standardisation projects where the support is targeted primarily at the development of harmonised standards that under-pin directives regarding the Internal Market. In 2004, support from the Commission amounted to approximately EUR 16 million annually.

Like national standardisation, European standardisation is under financial pressure these years due to several factors. Among other things, standardisation has been used to growth through the development of the Internal Market in the area of goods, but it is generally believed that the activity level within the traditional product areas has peaked. Therefore, there is a need for finding new areas for standardisation and new sources of revenue. The Government, therefore, supports efforts to the effect that European standardisation organisations, Member States and the Commission cooperate on studying new models that may secure sustainable financing of European standardisation.

New European division of labour regarding standardisation?

The demand for increased effectiveness, the arrival of new tasks and the prospects of a continued tight financial situation as well as the changed global framework conditions call for a new division of labour to ensure that productivity, costefficiency and national influence are safeguarded.

On the European stage, there are prospects of structural changes and new cooperation constellations. An EU with 28 members in the European standardisation organisations CEN and CENELEC is cause in itself to think along new lines.

Simultaneously, it is an open question if, in future, there will be the same room for national standardisation organisations in the EU. Some standardisation organisations are already today relatively small and under competitive pressure from the large countries' organisations. A possible consequence of this would be a new division of labour in European standardisation based on large national and regional standardisation organisations. Another possible consequence could be centralisation, which to a greater extent embeds standardisation activities in the European standardisation organisations CEN and CENELEC.

In a Nordic context, increased cross-border cooperation between the standardisation organisations may lead to economies of scale and increased influence. The opportunities of cooperating on the development

and maintenance of common databases and the development of new service and consulting services should be studied in detail. Similarly, it would be natural to clarify the opportunities of establishing more strategic cooperation on the development of new standardisation areas, the establishment of joint secretariats for standardisation committees, etc.

Denmark enjoys close and constructive cooperation with the Nordic countries and it would in the first instance prove natural for Danish Standards to examine the opportunities of closer cooperation with these countries on a more business-like basis.

At regional level, political cooperation between the standardisation organisations has developed within INSTA – the inter-Nordic cooperation body. In recent years, this work has been replaced by broader cooperation, including also the Baltic States. As part of Danish support to boost the Baltic standardisation organisations, Danish Standards has achieved good cooperation relations. These relations must be maintained and used proactively through further cooperation projects and the establishment of networks, among other things with a view to developing common positions prior to formal votes on standards.

Initiative 10: Cooperation and division of labour between the standardisation organisations in the Nordic countries

Content	The Government has taken the initiative to carry out a study of the prospects of developing the cooperation relations between the standardisation organisations in the Nordic countries. The study is to present potential areas for strategic cooperation development on a voluntary basis, including the development of new standardisation areas, the establishment of joint secretariats, etc. The study will be carried through under the auspices of the Nordic Innovation Center and with the participation of the Nordic standardisation organisations. The study was mentioned at the meeting of the Nordic Council of Ministers for Industrial Policy in the autumn of 2005
Responsibility	Ministry of Economic and Business Affairs
Partner	Danish Standards, standardisation organisations in the Nordic countries
Date	2006

The development of standards of global relevance

In line with increasing globalisation, the need increases for one set of globally recognised international standards to facilitate trade and contribute to removing trade barriers on the world market.

Globalisation implies that it becomes of increasing importance to Danish enterprises which standards become trendsetting on the global market and on regional markets, including especially in the USA and in the new growth economies in China and Asia. It will prove of great benefit to Danish enterprises if global standards apply that take Danish needs into account.

The international standardisation organisation ISO has committed itself to ensuring that international standards will be of global relevance. In practice, however, it is a huge challenge for ISO to meet this commitment, which is due, among other things, to the fact that every country has one vote, and that an ISO standard will not be adopted unless more than 2/3 of the participating countries vote in favour. Consequently, the EU has a number of votes compared with the one vote of the USA. The consequence of this may be that ISO standards do not necessarily become global as some countries will not accept the content of the standard and will decide not to put it into force at national level.

In order to address this problem, ISO's work of global relevance takes its point of departure in making the standards attractive to global trade. It is not necessary for the standard to be 100 per cent global. It may, to a minor extent, hold variations that benefit special regional conditions.

At the electro-technological area, the greater part of standardisation takes place internationally and is subsequently transposed into European standards – either directly or adjusted to European conditions. Throughout the 1990s, a steadily increasing percentage of European standards in CENELEC were based on IEC standards, but in recent years there has been a levelling out so that approximately a quarter of the standard portfolio today is exclusively CENELEC standards. When the number of standards increases in the area, the number of European standards without an IEC reference increases as well. As different standards are a problem to enterprises, a larger proportion of the European standards should be based on the international standards.

In order to strengthen the competitiveness of Danish enterprises at global level, Danish Standards must make an effort to ensure that European standards are, to a great extent, based on principles of global relevance. At the same time, Denmark's position in ISO's decisionmaking bodies

must be maintained, and Danish Standards must play a proactive role and impact on the discussions of global relevance.

It will be a natural task for the inter-departmental committee to discuss and further develop the Danish position in relation to the international effort.

Standardisation - Catalogue of Initiatives

