

**The Vision of the
DANISH
DESIGN
2020
Committee**

The Vision of the
DANISH DESIGN2020
Committee

The Vision of the Design2020 Committee

This publication may be ordered from:
Rosendals Schultz Grafisk Distribution
Herstedvang 10,
2630 Albertslund,
Denmark
Tel: +45 43 22 73 00
www.rosendahls-schultzgrafisk.dk

This publication can also be downloaded from:
The Danish Enterprise & Construction's website:
www.ebst.dk

This publication is free of charge

Copies 800

ISBN Printed edition: 978-87-92518-64-4
ISBN Electronic edition: 978-87-92518-65-1

Design: Rosendahls Schultz Grafisk ½

Printed in Denmark, June 2011

Danish Enterprise & Construction Authority
Dahlerups Pakhus
Langelinie Allé 17
2100 Copenhagen,
Denmark
Tel: +45 35 46 60 00
ebst@ebst.dk
www.ebst.dk

LIST OF CONTENTS

1. FOREWORD	6
2. THE VISION OF THE DESIGN2020 COMMITTEE	8
3. DESIGN AS A DRIVER OF INNOVATION	14
4. DESIGN COMPETENCIES	28
5. DESIGN RESEARCH & KNOWLEDGE-SHARING	38
6. BRANDING OF DESIGN FROM DENMARK	46
7. RESUMÉ (IN DANISH)	54

Appendix

MANDATE FOR THE DESIGN2020 COMMITTEE

FOREWORD

Design, stripped to its essence, can be defined as the human capacity to shape and make our environment in ways without precedent in nature, to serve our needs and give meaning to our lives.

John Heskett, 2002

In recent years, developments in the use of design have blurred the boundaries between design and a range of related activities. Design has come to mean more than giving form; it has increasingly become a strategic element in innovation processes in private enterprises and public organisations.

The Danish government expects design to become an even more powerful driver of innovation in the future. In the autumn of 2010, therefore, the government asked a group of six people to articulate a vision for the future – “Design 2020”. The purpose was to suggest how design can be strengthened and

used in order to contribute to growth, productivity, and innovation – areas in which Denmark faces substantial challenges.¹

In this paper, we – the Design2020 Committee – present our overall vision for design in 2020. We also describe the long-term challenges faced by the field of design, and how these challenges could be resolved in order to realize the vision. Our focus

¹ See the appendix: The Mandate of the Design2020 Committee. For a description of Denmark’s challenges, see *Denmark 2020: Knowledge – Growth – Prosperity – Welfare*, 2010, The Danish Government.

areas include design as giving form to products and services and as a driver of innovation, design research and education, and branding of design from Denmark and our region.

The Committee met six times between November 2010 and May 2011 and discussed the above-mentioned focus areas. The Danish Enterprise & Construction Authority and the Danish Ministry of Culture acted as secretariat. We received valuable input and inspiration from the Design Reference Group², from distinguished international guest speakers from some of the best design institutions around the world, and from various design institutions, organizations and companies in Denmark. We express our gratitude to all those who have contributed to and inspired our work.

2 The Design Reference Group is chaired and organized by the Danish Enterprise & Construction Authority and consists of the following members: The Confederation of Danish Industry, the Danish Chamber of Commerce, the Danish Design Council, the Danish Design Association, Danish Designers, the Danish Fashion Institute, Danish Fashion and Textile, the Danish Design Centre, the Danish Agency for Science, Technology, and Innovation, the Danish Ministry of Education, the Danish Design School, and the Danish Ministry of Culture.

The Design2020 Committee hereby presents its vision and recommendations to the Danish government and Parliament. It is our firm belief that design can contribute to improving the quality of people's lives, create economic value for businesses, and make the public sector better and more efficient. It is our hope that these recommendations will be transformed into a new and forward-looking strategy for Danish design.

Members of the Committee:

- Dr. Johan Roos, Moving Minds, Sweden
(former President of Copenhagen Business School)
(Chairman)
- Managing Director Anders Byriel,
Kvadrat 𐀀
- Designer Louise Campbell
- Managing Director Jacob Holm,
Fritz Hansen 𐀀
- Rector Elsebeth Gerner Nielsen,
Kolding School of Design
- Professor Yrjö Sotamaa,
Aalto University, Finland

THE VISION OF THE DESIGN2020 COMMITTEE

2.1 The vision

In short, the Committee envisions that, in 2020, Denmark is known worldwide as *the* design society. By that, we mean a society that, at all levels and in a responsible way, has integrated the use of design to improve the quality of people's lives, create economic value for businesses, and make the public sector better and more efficient.

In the following, this vision will be explained and expanded. It is important to note that this is a vision, *not* a strategy or a detailed plan. We have made no attempt to fill in all the details or imagine all possible obstacles along the way. Rather than challenges, objectives and means, we use the terms *landscape, vision and roadmap*. Instead of precision, we offer perspective.

Nor have we prescribed an exact plan for *how* the vision should be realized. The process of realizing the vision should be discussed and negotiated with all the relevant stakeholders in society. We suggest an inclusive, bottom-up approach allowing all stakeholders to have their say.

We also want to stress that we have not intended to propose a concrete policy – i.e. a program

for government actions and remedies. Indeed, the Danish government, authorities, and public institutions can and should be very instrumental in creating the right framework conditions for design and innovation. But this will never be enough to fulfil the vision.

The fulfilment of this vision requires that all parties – including private enterprises, public entities, and individuals – take part in shaping the future. Judging from the feedback received from Danish design organizations, leaders in private companies, and other stakeholders throughout the process of shaping this vision, the time is indeed ripe for joint action. Therefore, with inspiration from President Kennedy, we ask – not what society can do for design, but what design can do for society.

2.2 A third-generation design policy

Our vision is about creating the conditions for private, public, and third-sector organizations to thrive and generate value for the Danish society at large. It is not about increasing regulation or state intervention. However, policies matter.³ In the '90s,

³ According to a recent study, there is a positive correlation between national design policy and national competitiveness. Gisele Raulik-Murphy, *Comparative Analysis of Strategies for Design Promotion in Different National Contexts*, 2010, PhD dissertation, the University of Wales.

Denmark was among the first countries in the world to adopt a design policy. Among many issues, special emphasis was placed on awareness of the potential of design for enterprises outside of the original design sector. In the 21st century (2000-2009), many countries launched second-generation design policies emphasizing the dissemination of knowledge on how to use design and, in the Danish case, on creating better-functioning markets for design services.

Many countries are now in the process of formulating so-called third-generation design policies, which emphasize the use of design as an important tool for cultivating innovation and meeting societal challenges.⁴ The Committee's vision rests on this assumption, and we recommend making this the core of Denmark's next generation of design policies.

A policy for design as a driver of innovation should benefit Danish start-ups and create new business opportunities, but it should also focus on areas in which Denmark and Danish enterprises have competitive advantages compared to the rest of the world. Thus, the key drivers in a new design policy –

⁴ *Mapping of International Design Policies and the Strategies for Leading Design Schools and Research Institutions*, 2011, Quartz + CO for the Danish Enterprise & Construction Authority and the Danish Ministry of Culture.

knowledge-sharing, design education and research, branding, etc. – should help to sustain Danish strengths, making the best even better.

Denmark should by no means copy the design policies of other countries. We must continuously strive to create our own particular path, combining artistic creation with research-based knowledge about users, market, culture, and society. And we must use the unique Danish design and industrial heritage and the best of our collective efforts as stepping stones in order to realize the vision of Denmark as the design society.

2.3 Realizing the vision

Our vision is indeed very ambitious. However, taking into consideration the innovative potential of design – that is, the ability of design to create better and more efficient solutions - it is clear that nothing less will do. When exploited to its fullest potential and used responsibly, design (broadly defined) can contribute considerably toward creating a better society. Around the world, countries such as Finland, Korea, and Singapore are realizing the new promise of design as an enabler of value creation, and substantial public and private investments are being made at local, regional and national levels in design

research, education, and promotion. If we want Denmark to remain a global leader within the field of design, we have to act now and forcefully.

In Denmark, as in many other Western countries at the moment, resources for new investments are scarce. An economic crisis, an aging population, and a growing demand for better welfare services have led to tighter fiscal constraints. However, the very promise of design as a driver of innovation is in its ability to “do more with less”. Hence, we should not and need not compete with other countries when it comes to new investments in programs aimed at supporting designers or the use of design by business. In order to exploit the potential of design as an enabler of value creation, Denmark needs to become much better at integrating the design-driven approach into investments in society. In building the welfare society of tomorrow, we must make sure that due consideration is given to develop design and its potential to improve society.

In the years leading up to 2020, Denmark is investing much more than DKK 100 billion in traffic infrastructure, new hospitals, daycare institutions, public schools, homes for the elderly, and universities. Furthermore, private Danish foundations and

A definition of “design”

In its original sense, design means “to give form”. As such, design has its roots in art. The designer shares the artist’s ability to create – i.e., to develop something that has not been seen before. However, in contrast to the artist, the designer is bound to address a specific need or function. Design can, thus, be described as a creative process *and* as the result of this process.

This unique combination of creativity and purposefulness has attracted a great deal of attention in recent years as a tool for innovation. Disciplines outside of the design sector *per se* seek to understand and adapt the innovative capabilities of design by examining and copying the various stages of the design process. How does the designer think? What kind of knowledge is created in the design process? How are ideas developed into solutions? How can design be used as a tool for user-driven innovation? What kind of tools does design offer to facilitate dialogue and knowledge-sharing across different disciplines? As such, design could be broadly considered as the bridge, for example, between creativity and innovation, technology and the user, scientific and commercial disciplines.

The development of the uses of design has had two consequences. First of all, design can now be used *strategically* and, second, design becomes a particular way of *thinking*. The designer’s way of working and thinking can be utilized by others, for example, as the basis for management. In this way, other people can tap into the creative capabilities of design for the purpose of transcending known or unknown borders and barriers and thereby increasing innovation. Although strategic design and design thinking have their roots in the field of art, they are, first and foremost, knowledge disciplines with strong ties to the social sciences.

Design – which is commonly understood as products of a certain quality and the process of crafting these products - is now internationally recognized as part of a knowledge-intensive field

characterized by innovation, multidisciplinary, and strategic processes. According to a recent mapping of international design policies, new and emerging design disciplines such as strategic design and design thinking are gaining focus in policies for design, innovation, industry, and education. Recent design policies, thus, tend to focus on design as a strategic tool for innovation, economic progress, and job creation. In addition to this, there seems to be an increased international focus on using design as a tool to meet grand challenges in society.

Supranational institutions, such as the EU, have also recently recognized the potential of design by emphasizing the importance of strategic design as a driver of innovation in the private as well as in the public sector and by introducing a European Design Innovation Initiative.

Due to this expanded notion of design, it is difficult to give an exact description of the term “design”. The EU proposes the following definition: “Design is a tool for the realisation of innovation. It is the activity of conceiving and developing a plan for a new or significantly improved product, service or system that ensures the best interface with user needs, aspirations, and abilities and allows for aspects of economic, social and environmental sustainability to be taken into account.”

In conclusion, design has come to mean more than giving form; it is increasingly becoming a strategic element in innovation processes in the private as well as in the public sector.

Sources: *Mapping of International Design Policies and the Strategies for Leading Design Schools and Research Institutions*, 2011, Quartz + CO for the Danish Enterprise & Construction Authority and the Danish Ministry of Culture. *Design as a Driver of User-Centred Innovation*, 2009, EU. *Europe 2020 Flagship Initiative – Innovation Union*, 2010, EU. *Conclusions on Creating an Innovative Europe*, 2010, EU. *Cox Review of Creativity in Business*, 2005, The British Design Council.

The Danish design DNA

Design reflects the essence of a nation's identity. The building blocks of the Danish design DNA are, among other things, the cooperative movement, democracy, legal rights for all, the welfare society, nature and the sea, freedom, equality, and respect for all individuals. Design is not only embedded in our fundamental values, culture, and aesthetics but also in Danish products, services, and solutions. Design embraces everyone and is present everywhere in the public space.

The concept of “Danish Design” is world-famous. It was created during what has been called the “Golden Age” of Danish design from the 1950s to the 1970s. Behind this concept is a unique design tradition created on a foundation of Danish heritage with a humanistic approach. Concepts such as being user-centered, having an understanding of materials, and having the desire to create functional products of superior quality for the ordinary citizen have been central ingredients in the brand that we today recognize as “Danish Design”. Names such as Arne Jacobsen, Poul Kjærholm, Poul Henningsen, Børge Mogensen, and Hans J. Wegner are not just Danish design classics. They are icons of design throughout the world. This traditional Danish design has contributed to the fact that Denmark is often regarded as a design country.

Danish designers are known for a special Nordic or Scandinavian style. A unique combination of skills such as user awareness, simplicity, and functionalism characterizes and differentiates design from Denmark. Danish designers are able to combine aesthetics and functionality in way that makes design accessible and meaningful for every citizen. It is a cultural, humanistic, and social approach to design – rather than a market-driven approach. This capability is embedded in Danish design and shared by only a few other countries.



companies are investing heavily in areas such as the built environment⁵, healthy food for children⁶, and metabolic diseases.⁷ Design should be made an integral part of such large investments from the very onset in order to ensure quality, efficiency, and user friendliness. If we seriously believe that design can improve society, we need to become better at applying design consistently to all relevant areas of society.

Our vision will be realized the day it is no longer necessary to explain and motivate the value of design or promote its use to Danish companies and public organizations. This is the day when design will have become an interwoven part of the psychological, social, and economic fabric of Danish society. This is the day when design will be as natural to Danes as caring for the environment.

The starting point is very good. The Danish humanistic tradition and the legacy of our historical design traditions influence and inspire contemporary Danish design, differentiating Danish design from other design positions in the global market. The

5 www.realdania.dk/English.aspx

6 www.foodoflife.dk/Opus/English.aspx

7 www.novonordiskfonden.dk/en/index.asp



Fotos venligst udlånt af Ted Lahn, Mads Armgaard, Dansk Design Center, Columbus Leth, Nicolai Perjesi, Gregers Reimann, Kim Wyon, Det Gode Køkken, Ireneuz Cyranek, Redia og Leif Orkelbog-Andersen

Danish design DNA consists of a holistic mindset, a multi-faceted approach, and user-centred processes. This contributes to innovation and better solutions for complex problems.

Hence, Danish design has always included the characteristics of newer movements, such as strategic design and design thinking. Denmark has a unique starting point to become a full-blown design society, and in order to succeed in this, we must not only sustain and build on our strong position in form-giving design but also embrace new trends in design disciplines.

If Denmark is to maintain its status and image as a society with a strong design identity, and if Denmark is to become better at harnessing the innovative capabilities of design, we have to adjust our course now. Doing so requires not only a mobilization of the necessary means and resources but also a strong and coordinated focus by Danish decision-makers in the private and public sectors, who must learn to appreciate the design-driven approach as a particular mindset. It requires a coherent and durable strategy to realize the vision of Denmark as *the* design society – a society that, at all levels and in a responsible way, has integrated the use of design

to improve the quality of people's lives, create economic value for businesses, and make the public sector better and more efficient.

In the following chapters, we outline four important areas within the field of design where action should be taken in order to realize the vision:

- 1) design as a driver of innovation,
- 2) design competencies,
- 3) design research and knowledge-sharing, and
- 4) branding of design from Denmark.

These areas should form the pillars of a new national design strategy.

DESIGN AS A DRIVER OF INNOVATION

3

3.1. Landscape

Globalization has integrated national and regional economies, societies, and cultures through a global network of communication and through easier and cheaper transportation. This has led to more trade, outsourcing of economic activities, and a fierce global competition between enterprises for market shares. It has also led to increased competition between countries and regions for the best framework conditions for businesses in order to create jobs and growth. Furthermore, globalization has brought on a new set of grand societal challenges such as climate change and a growing demand for welfare services, which require new solutions. A better and more widespread use

of design as a driver of innovation throughout the entire society is a prerequisite if Denmark is to meet these challenges efficiently.

Design as a driver of innovation in enterprises

Businesses in Denmark and all over the world are experiencing a need to adapt to global transitions. Globalization has increased the number of competing suppliers and products to market, created more and cheaper sales and distribution channels, greater transparency, and shorter product cycles. Along with growing global consumer demand for personalized products, this process makes it constantly necessary for companies to pursue innovation in order to offer the best possible product or service at the right price.

Meanwhile, the global pattern of innovation and the drivers of innovation are changing continually, as innovation has become increasingly dependent on immaterial rather than physical investment and is often not born and nurtured in individual companies but in collaborations between companies or between companies and users.⁸ As a new and promising driver of innovation, design can help companies adapt to globalization by developing new ways of making and

selling products and services or by developing entirely new approaches to their business and ways to deliver value to customers. Furthermore, design-driven innovation can lead to the development of new – even radically new – products and services and be used to commercialize new technologies by making them accessible to users. At its best, design can give new meaning to things.

Design-driven innovation can, thus, complement technology-driven innovation and significantly increase company innovation, productivity, and growth. Furthermore, a design-driven approach can increase company competitiveness by creating differentiation in international markets.⁹ This applies to markets in the developed world, where the perceived value of products and services are at the forefront and to markets in the developing world, where affordability and frugality are central goals of innovation. In fact, there is a large and still growing potential in delivering affordable and life-improving design to the developing world.

In Denmark, large companies such as Grundfos, Danfoss, Maersk, Novo Nordisk, Coloplast, and the

8 *New Nature of Innovation*, 2009, OECD.

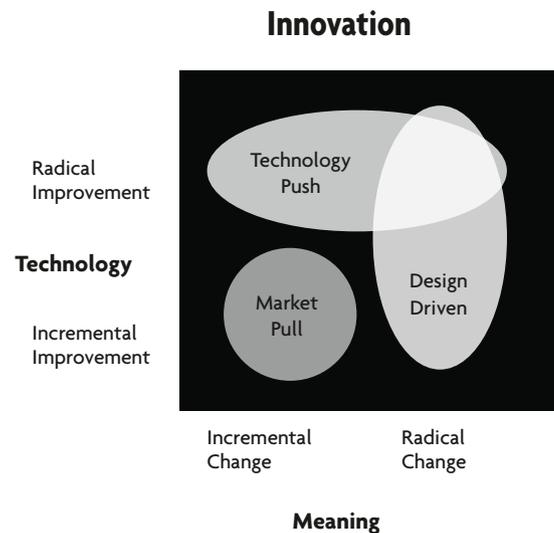
9 Roberto Verganti, *Design-Driven Innovation*, 2009; Design as a Driver of User-Centred Innovation, 2009, EU.

Traditionally, companies have used technology as a source of innovation and development. However, in recent years, more and more companies have discovered that design can be an equally important source of innovation. Design can improve products, services, and processes by making them more meaningful to people. In other words, design is an enabler of innovation because it can innovate the meaning of products and services. This, in turn, leads to a significant growth and profitability because, when products are more meaningful, users attribute to them a higher perceived value.

Roberto Verganti maps the innovation of firms in accordance with two dimensions: Technology and meaning. In addition, innovation can be either incremental or radical in both dimensions. Verganti therefore identifies three possible innovation strategies:

1. Market-pull innovation, which begins with an analysis of user needs and then searches for solutions to those needs. It aims at giving users what they ask for, leading to incremental improvements. For example, in the case of light bulbs, this type of innovation may lead to different bulb shapes (a flame-like bulb) or wattages (e.g. 10 W).
2. Radical innovation of technology – or technology-push innovation, which reflects the dynamics of advanced technological research. For example LEDs, which are now spreading throughout the lighting industry, stem from research in the 1920s which followed the typical pattern of scientific discovery and technological development. Technology-push innovation has been the focus of past strategies and policies because technological breakthroughs have a potentially disruptive impact on industries and are often the source of long-term competitive advantage. However, recent studies have shown that

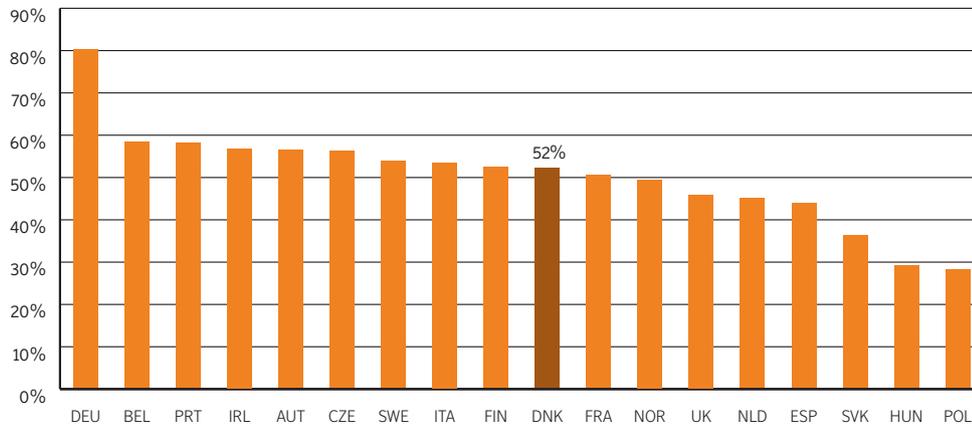
Figure 1



technological breakthroughs are only potentially disruptive: To capture their value fully, firms must understand how to use those technologies to create more meaningful experiences to users, i.e. they have to combine technological breakthroughs with design.

3. The radical innovation of meanings – or design-driven innovation, which is propelled by a firm's vision of possible breakthrough meanings that have more value for people (in retrospect, people often seem simply to have been waiting for them). Design-driven innovation has the capability of creating more value and stronger brands, and competitors can hardly imitate it. Sustained competitive advantage and long-term profit can, therefore, come from radical innovation in technology and meaning, possibly linked together.

Source: Roberto Verganti: *Design-Driven Innovation*, 2009.



Includes companies with at least 10 employees. Innovation activities are defined as having provided product, process, organizational or marketing innovation, or activities focused on introducing new products and/or processes. Source: *Community Innovation Survey, CIS2008*.

Figure 2: The share of innovative companies, 2006-2008.

The Community Innovation Survey (CIS), organized by Eurostat, charts the share of companies with innovation activities. The survey shows that around half of Danish companies had innovation activities in the period 2006-2008.

The CIS2008 is not fully comparable with previous editions of the CIS due to changes in the population surveyed and in the CIS questionnaire. However, it can be shown that the share of Danish companies showing product or process innovation has dropped compared to earlier years. Source: *Community Innovation Survey, CIS2008* and past editions of CIS.

LEGO Group are already using design as an important and integral driver of innovation in order to increase their competitiveness and prepare for a future with a more intense competition for natural resources. Some Danish companies, like Grundfos, are also making a mark by developing solutions that are affordable to consumers in the developing world. Also, small and medium-sized companies are gradually opening their eyes to the innovative capabilities of design. Furthermore, Denmark has a range of well-performing companies based on product design and design services such as Pandora, Copenhagen Fur, Designit, Kontrapunkt, 1508, as well as a large number of small and medium-sized companies with design as their main theme not only in products but also in their culture and communication.

The ever more widespread use of design and the ever more blurred limits of design as a concept mean that the strategies for how to use legal design protection

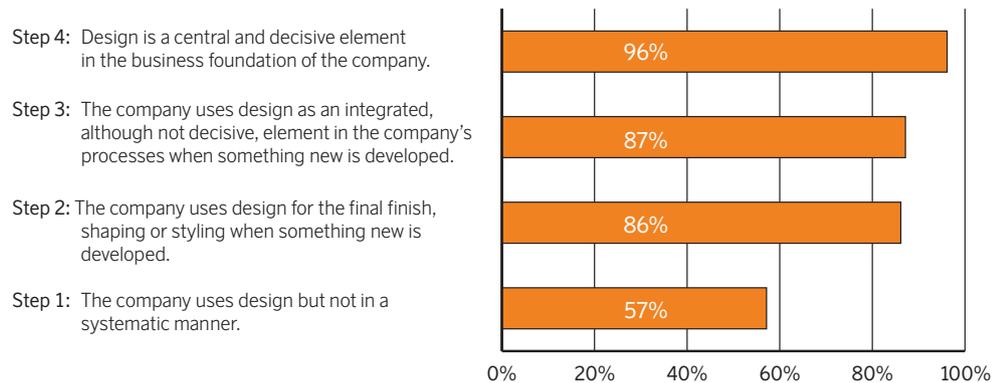
differ among enterprises and sectors. Some enterprises work with so-called open innovation and develop their designs so swiftly that formal protection is not very important – while others, especially companies using form-giving design, are interested in robust design protection. Unlike patents, design protection differs greatly between countries, which is a problem for many exporters.

In the last decade, Denmark has suffered a decline in productivity growth. Furthermore, this decline is more significant than in most other Western European countries. On average, Danish enterprises have become less innovative when measured by the European Commission's CIS review. In recent years, Denmark has dropped to a mediocre place.¹⁰

¹⁰ *Denmark in the Global Economy - Competitiveness Report 2010*, The Danish Government; <http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/cis>.

The Design Survey, organized by Epinion for the Danish Enterprise & Construction Authority, charts the use of design in the business model of Danish companies. The survey shows a positive relationship between the use of design and the innovation activities of a company. When design becomes a more integrated and central element in the business model of the company, the likelihood of the company having innovation activities increases. More specifically, when asked, a little more than half of the companies that make use of design but not systematically, state that they have innovation activities. In comparison, almost all the companies that use design as a central and decisive element in their business foundation state that they have innovation activities, cf. figure 3.

Figure 3: The share of companies with innovation activities in relation to their use of design, year 2010.



Includes companies with at least 10 employees. Innovation activities are defined as having provided product, process, organizational or marketing innovation in the period 2007-2010.

Source: *The Design Survey 2010* by Epinion for the Danish Enterprise & Construction Authority (FORA).

Analyses show that there is a positive correlation between the level of investment that companies make in design and their innovation capability.¹¹ According to a recent Danish study, companies using design as a central part of their innovation and business processes are more innovative than companies that only use design to add a final styling or finish to their products.¹² The study, thus, indicates that companies can become more innovative if they integrate design into their innovation and business processes. Danish companies need to accelerate this positive development, and future Danish policies should enable it.

Design-driven solutions to societal challenges

Globalization has not only transformed the world of business but also brought on a new set of complex and grand societal challenges, which require new and complex solutions created in public-private partnerships.¹³ Climate change, pollution, and congestion problems in many major cities,

and a growing demand for health care and other welfare services are examples of such challenges. Design-driven innovation can play a key role in the development of new solutions to such challenges by designing business systems, manufacturing processes, services, and products that consume as few resources as possible, thereby reducing the impact on the environment.

Moreover, in the near future, many Western societies will face substantial challenges due to an increasingly aging population, large segments of which are older than 70 or 80 years. Welfare services, such as the healthcare system, will need to improve without receiving additional funding. A number of successful Danish service design projects and experiences from the British Design Council have shown that design can be an efficient tool in developing innovative and cost-efficient solutions that are better suited to meet the real – sometimes unrecognized – needs of consumers within fields such as healthcare. Furthermore, design can be used to “nudge” or change behavioral patterns or habits – for example, reducing trash in the streets by designing more attractive garbage receptacles.

11 *The Design Survey 2010* by Epinion for The Danish Enterprise & Construction Authority (FORA); *Design as a Driver of User-Centred Innovation*, 2009, EU; www.designfactfinder.co.uk.

12 *The Design Survey 2010* by Epinion for The Danish Enterprise & Construction Authority (FORA).

13 *Europe 2020 Flagship Initiative – Innovation Union*, 2010, EU.



Keep Denmark Clean – partnership to reduce waste

Denmark spends DKK 500 million annually to clean up after itself. In this context, garbage dumped at rest areas and along our roads presents a challenge.

In addressing this challenge, the Danish Design Centre has teamed up with the organization “Hold Danmark Rent” (“Keep Denmark Clean”) and the design consultancy Goodmorning Technology to develop new, innovative solutions. The result has been the preparation of eight specific solutions, ranging from the refurbishment of rest areas and smart waste solutions in cars to a new business concept using waste as a resource.

It has been crucial to involve the user in the design process in order to ensure that the proposals can actually solve the problems. All of the solutions are, thus, based on thorough research and ethnographic studies of user needs and behavior on roads and at rest areas.

As the waste challenge is not only Danish but global, it is estimated that there is an export potential for Danish companies that seize this opportunity. The organizations behind the project are currently in dialogue with stakeholders and other companies about the possibility of testing and producing various solutions.

Source: www.ddc.dk / www.holddanmarkrent.dk

Design Bugs Out – improving the British health care system

Among the many challenges of the healthcare system is how to keep hospitals clean and safe. In the UK, design is seen as a tool to keep hospital furniture and equipment clean, thereby reducing the risk of infection in British hospitals.

Along with the British Department of Health and the National Health Service (NHS), the British Design Council challenged the UK's design industry and manufacturing community to design and prototype new hospital furniture and equipment that will help reduce infections incurred in the healthcare system. The Royal College of Art was challenged to develop "quick wins", while a national design competition was thrown open to designers and manufacturers.

The designers brought their creative approach to problem-solving, including their unique way of understanding users, making things visible by prototyping and iterating. This resulted in the development of new functional furniture and equipment that benefitted both staff and patients.

Besides these benefits, recent forecasts show a potential return on investment of £23 per £1 investment and an additional £11.3 million in turnover for participating manufacturers and designers involved in the Design Bugs Out project.

Source: www.designcouncil.org.uk



New and intelligent solutions such as these not only reduce energy consumption and improve public healthcare for the greater good of the climate, the individual, and society in general, they also give the service provider a competitive edge in the global market. Thus, design is not simply an important tool for business; it is also a highly relevant instrument for meeting societal challenges and developing public services with higher quality, better usability, and lower costs.

Design-driven approaches to innovation can increase growth in Denmark

The importance of design grows as companies and organisations use design-driven approaches to innovate and improve products, services, and processes and to engage users. The design-driven approach mediates between technology, business, and end-user perspectives, thereby substantially improving the success rate of innovation processes. More and better use of design cultivates creativity and the willingness of both private and public parties to experiment with new and better solutions. A more widespread use of design can be a very strong impetus for improving Denmark's innovative capabilities and growth.



Aunsbjerg Auto Company – design used to develop a strategic business model

Aunsbjerg is an example of a Danish SME that has successfully used design as a driver of innovation. The auto company currently employs around 100 people in its three divisions in Jutland and has been using design actively to meet current and future challenges in the car industry.

In the strategic development of the company, design has been used to identify the entire value chain of a car from a retail perspective and, then, determine where in the process the greatest increase in value is located. The work has been carried out in collaboration with *etrans*, a user-driven innovation project managed by Kolding School of Design and funded, among others, by the Danish Enterprise & Construction Authority.

In addition, Aunsbjerg used design to ensure that their business model makes them competitive in the most important areas of the value chain. Attention was also paid to services that did not originally appear in the company's value chain. In an extension of this, Aunsbjerg used design to develop new concepts, including the new company "Zapbil" that, in return for a subscription, offers people the opportunity to book and rent a car even if it is just for a short period of time.

To help improve customer satisfaction, design has also been used for process optimization, which resulted in an increased level of customer satisfaction in just nine months.

Source: Aunsbjerg

So, what does the scenario of design-driven innovation in Denmark look like in 2020?

3.2. Design as a driver of innovation – the Committee's vision

In 2020, design permeates Danish public and private organizations and plays a key role in meeting societal challenges:

- Danish public-private partnerships use design to develop innovative solutions to societal challenges, especially in areas in which Denmark and Danish companies have advantages such as the green economy and welfare services.
- A majority of Danish companies use design as an important and integrated driver of innovation to strengthen their productivity and global competitiveness.
- Denmark has a significant number of specialized design firms that offer a wide variety of cutting-edge design products and services to the global market.
- The Danish public sector consistently utilizes design to develop better and more efficient services.
- Denmark remains a country where materials and products are shaped, developed, and produced in innovative ways.

3.3 Roadmap

A transformation into a more innovative society cannot be achieved by the government or the private sector alone – it requires collaboration. A number of steps along the road can be identified:

Establish public-private design partnerships

- The public and the private sectors should join forces in partnerships committed to the development of solutions to societal challenges such as climate change, pollution, scarcity of natural resources, city congestion, and health problems. None of these problems can be solved by single brilliant individuals or enterprises. The magnitude and complexity of these challenges call for partnerships and collaboration. Such partnerships could be facilitated by a more open mindset in public institutions and authorities and by more flexible and innovation-friendly procurement rules. The possibility of creating a public-private “Grand Challenge Fund”, merging public funds available for innovation and development with resources from private foundations in order to support the development of design solutions to grand challenges, should be investigated.

CHALLENGE SOCIETY – Exhibition at the Danish Design Centre (DDC)

The world is transforming, creating complex, societal challenges. Educational systems and health care systems are under pressure, and the future sees fewer hands to care for the increasing number of elderly. In general, the model of the welfare state is under pressure. The Danish Design Centre’s exhibition, CHALLENGE SOCIETY, shows how design can meet such challenges. It is not a question of inventing new accessories for the world, but of inventing new ways to design the world. It is necessary to design systems and services that match the complex demands of the future public and private sectors, both individuals and companies. The DDC is not claiming that design is the solution to the world’s problems. But it can help.

DIN – A model for design driven innovation

The Danish Design Centre has developed a model for design driven innovation. The model is based on user-driven innovation, design principles, and design methods. The purpose is to increase innovation, precision, and successful implementation in the private and the public sectors. The model is based on practical experience from projects and concepts concerning social challenges. Throughout 2011, the Danish Design Centre will exhibit cases, and discuss how and why design thinking can help solve some of the grand challenges of our society.



Danish enterprises should improve their innovative capabilities and approach to innovation

- The various bodies organizing Danish enterprises (Confederation of Danish Industry, Danish Chamber of Commerce, etc.) should develop a joint strategy for using design as a driver of innovation. Such an effort would also strengthen Danish product designers and strategic design consultancies, thereby creating a better functioning Danish market for design services.

Design companies should be more proactive and better at demonstrating user benefits, including cost and resource savings

- Designers and design companies should be more active in cooperating across all borders – national, mental, and inter-disciplinary – and expand their understanding of client needs both in the private and the public sectors. Design companies must be able to demonstrate that their service is cost-efficient and that it adds value to processes as well as products. Thus, design services and products should be sold not on a nice-to-have basis but rather on an efficiency and life-enhancing basis, inferring that even though good design increases value, it is not necessarily an extra cost.

Different IPR rules (Intellectual Property Rights) should not be a barrier for Danish design companies

- Denmark should argue for an international reconciliation of the various design protection systems.

Design should consistently be used to develop better and more efficient public services and solutions

- The design-driven approach should be made an integral part of planning and realizing large societal investments such as new hospitals, educational facilities, urban development, infrastructure, etc. This would not only make an important contribution toward ensuring the quality, efficiency, and user-friendliness of such investments and their results, it would also be a source of continuous development of new products and competencies with a significant commercial potential. In order to achieve this, Denmark must maintain and build on its strong position in form-giving design but also embrace a broader perspective of design such as service design, strategic design, and design thinking in order to meet societal and environmental challenges.
- In procurement, the public sector should not only take into consideration short-term purchase costs

but also focus on total life-cycle costs, thus taking into account maintenance and repair costs as well as implied costs or benefits in other related areas. Well-designed products and services will often save money or resources in the long run. Well-designed furniture can last for centuries and age with beauty; well-designed buildings may increase employer satisfaction and productivity or speed up patients' healing processes; and well-designed web services may decrease user costs, misunderstandings, and waiting time, thereby increasing user satisfaction.

- In developing new solutions, public entities at all levels should be more open to experimentation and innovation and get rid of risk-averse, “zero-fault”, or “not-invented-here” attitudes. Furthermore, design competencies should come into play when public bodies evaluate and select projects for public support.

Improve the dissemination of knowledge about the use of design as a driver of innovation

- The dissemination of knowledge to companies and public institutions on how to use design to strengthen innovation and efficiency should be improved by a clearer division of labour or a better structure of the institutions in this field.

Now, how can success in adopting and using design to drive innovation be measured?

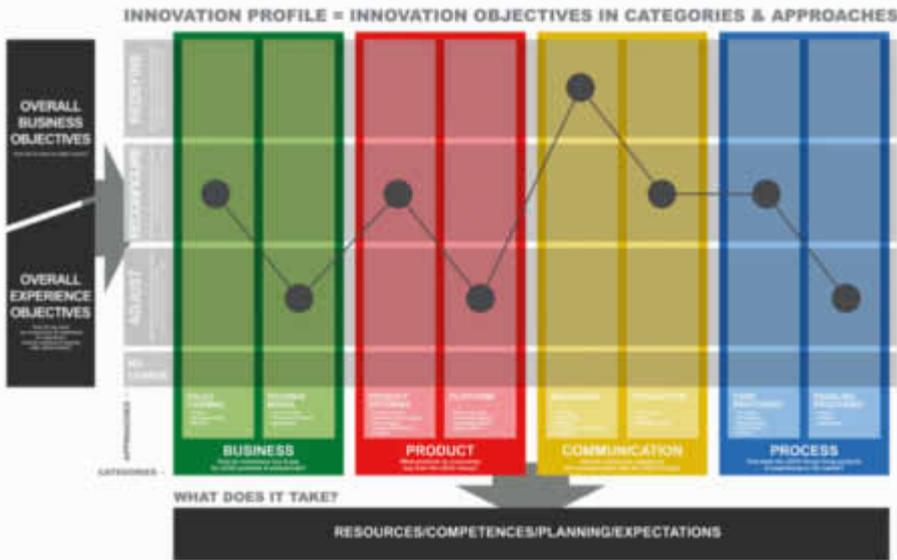
3.4 Measurement or success criteria

First of all, measures for innovation exist and are published annually – e.g. the Global Innovation Index or the EU's CIS indicators. In 2020, Denmark should have strengthened its position considerably by such indices.

Secondly, the value of design could be measured by the revenue of new products and services and by its contribution to the improvement of the quality of life and society. The possibility of measuring the direct impact of design in these areas is limited, but Denmark should strive to develop more refined tools such as *The Design Survey*¹⁴ in order to achieve this.

¹⁴ *The Design Survey 2010* by Epinion for the Danish Enterprise & Construction Authority (FORA).

LEGO INNOVATION MODEL



The LEGO Group's innovation model is designed as a 'quick guide' to help foster a shared understanding and language around innovation at The LEGO Group. The model and tools help the entire company to:

- Participate in a dialogue early in the process to define project objectives and the innovative approach needed to realize them.
- Anticipate and acknowledge the resources and skills required for success.
- And enable the assessment of results in accordance with a set of objectives at different stages of the project.

In order to prevent unnecessary redesign or replication of work without stagnating creativity, the LEGO Group's innovation model is applied to the four fundamental areas of business at The LEGO Group: business, product, process and communication. In each area, activities are constantly reviewed and the appropriate level of change is selected.

The innovative approaches used in the model are:

- No change – a product or process is currently fit for its purpose
- Adjust – minor changes and optimization of known parameters are used to update products or modify processes in order to improve performance
- Reconfigure – known parameters are put together in a new way in order to meet existing business and/or customer needs better
- Redefine – an entirely new approach is introduced in a business area or market sector – existing products and processes may undergo fundamental modifications

The LEGO Group – A holistic approach to design as a driver of innovation

Over the past 4 years, the LEGO Group has enhanced its innovation strength by applying design methods in a holistic approach to both process management and product development.

The LEGO Group had wanted to become more innovative and to develop a common innovation language for some time, but the solution to these challenges did not emerge until four years ago when the design department of the LEGO Group developed an innovation model along with a Dutch design bureau.

Prior to this, innovation processes were mainly aimed at physical products; whereas the LEGO Group's new innovation model encompasses four areas: business, product, communication, and process. The LEGO Group has benefited from the designers' holistic approach combined with their practical and visual skills.

This holistic approach has resulted in stronger concepts and far more effective resource management. Furthermore, the innovation model has created a common mindset and a consistent approach throughout the whole company with regards to innovation. In addition, the LEGO Group uses design research methods to gain new insights into the market and customer behavior.

Source: The LEGO Group

The Good Kitchen – service design in the public sector

The number of senior citizens is growing, and some seniors tend not to eat enough, which affects their health and quality of life. In the future, senior citizens are also expected to demand better service and a wider selection of meal services.

In order to address current and future challenges, “The Good Kitchen” was formed as a partnership between the Municipality of Holstebro and the design agency Hatch & Bloom. Design anthropologists made home observations to explore what might explain the lack of appetite among the elderly. This, along with user workshops and kitchen observations, led to the transformation from a municipal kitchen with a ‘one size fits all’ attitude to a more holistic, restaurant-inspired experience: “The Good Kitchen”, which includes a new and improved menu with a more flexible selection of foods, a new corporate image, and ongoing user involvement and dialogue.

For senior citizens, this new concept has resulted in increased satisfaction with the overall meal experience and a better appetite among malnourished seniors. The staff is now experiencing a greater sense of professional pride and commitment, and the number of customers has increased significantly.

“The Good Kitchen” received the Danish Design Prize 2008/2009 in the Service Design category. In 2009, the project also received the innovation prize from Local Government Denmark and was nominated for the official German Design Award.

Source: *Why Service Design? Simple Solutions to Complex Challenges*, 2010, The Danish Enterprise & Construction Authority, The National Board of Social Services, and Danish Regions.



DESIGN COMPETENCIES



4.1 Landscape

One of the most important long-term investments any society can make is building competencies. In light of the recent focus on design as a driver of innovation, design competencies are becoming increasingly relevant for companies and public entities. Design competencies, broadly defined, are becoming important for many people not directly involved in design activities, and cutting-edge design skills are vital for designers if they want a position in future markets for solutions to all kinds of problems. If Denmark is to become the design society, it is essential that the right design competencies are available to companies and to the public sector.

New competencies – for designers and for people working with design

Danish design is firmly rooted in a highly-acclaimed form-giving practice. However, as the concept and use of design evolve, the role of the designer evolves as well. Design is becoming an important part of strategic, cross-functional, and multidisciplinary innovation activities, which implies a broader role for the designer, building bridges between different disciplines and transforming input into solutions. Designers are beginning to value the “T-shaped” model of education, which combines a “vertical”

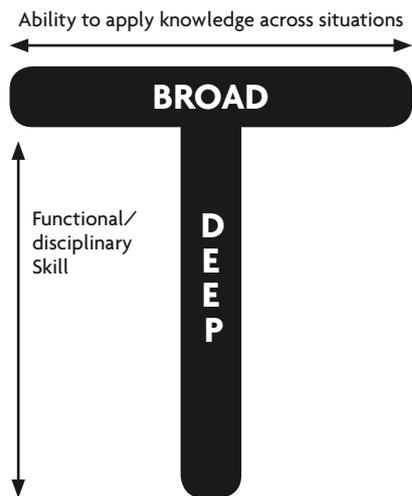
T-shaped people

The concept of T-shaped people originates with the design and innovation consultancy IDEO. The T-shape consists of a vertical and a horizontal bar. The vertical bar represents depth of skill and professional specialization. The horizontal bar represents the ability to collaborate across disciplines.

In order to contribute to the creative process of a team project, all members must possess deep professional knowledge, be able to share their perspective, and understand the perspectives of the other team members.

The T-shaped model has acquired a wide currency in design circles as a representation of the desired skills for designers. For IDEO, however, it represents the desired skills of all members of multidisciplinary design teams.

Following this lead, the challenge of creating T-shaped people in the Danish design field does not apply to designers alone. Design can only fulfil its promise in a combined effort shared by engineers, business people, politicians and civil servants, social scientists, etc.



specialization with a “horizontal” capability of cooperating with other disciplines.

The development within the field of design also requires others working with design (e.g., managers,

engineers, researchers, policy makers, etc.) to be educated on how to leverage the value of design. They need to learn how to incorporate design into a company strategy, how to attract and select talented designers, how to brief and lead a design team, and

how to profit from design. The path to excellence in design passes through a better understanding of design by other players. In particular, this implies educating managers on design management.

This evolution is reflected internationally, as many foreign design schools and universities are focusing to an increasing degree on multidisciplinary and design thinking in their curricula. Furthermore, international cooperation within the field of design will become more and more important.¹⁵

The importance of art-based design competencies

Even though Denmark needs designers equipped with new analytical tools, it is very important to stress that Danish design is firmly rooted in an artistically-based material- and form-driven practice. It is, therefore, vital for Denmark – along with expanding the notion of design by using it as a driver of innovation – to pay attention to sustaining and strengthening the position of design as an art form. As such, design contributes in a multitude of ways to innovation, and in order for strategic design or design thinking to thrive, design in

¹⁵ *Mapping of International Design Policies and the Strategies for Leading Design Schools and Research Institutions*, 2011, Quartz + CO for the Danish Enterprise & Construction Authority and the Danish Ministry of Culture.

The landscape of Danish design education

The concept and use of design have evolved and been reinvented over recent years, and Danish design programs have evolved along with them. The background for these design programs is the knowledge base and skills that originate from craftsmanship and design as an art form, but the concept of design has migrated to and been reinvented in other disciplines. To understand this development, education in design can be divided into design and design-related programs.

Danish design education is under the aegis of the Danish Ministry of Culture, the Danish Ministry of Science, Technology and Innovation, and The Danish Ministry of Education.

The Danish Ministry of Culture is responsible for design education programs that originate from craftsmanship and have their knowledge base in art, materials, and design as a form-giving discipline. These design programs are now accredited with bachelor and master's-level degrees, and the programs have expanded from form-giving into disciplines such as strategic design and design thinking.

The Danish Ministry of Education is responsible for non-university higher education programs and the vocational training of skilled professions – including,

for example, jewellery, textiles, fashion, and a number of programs integrating design and business of which most are design-related.

The Danish Ministry of Science, Technology and Innovation is responsible for Danish universities and other higher education programs. The universities offer a variety of design-related programs including, integrated design, interaction design, strategic design, and design management. The universities also offer design education programs with a focus on design practice in disciplines such as industrial design and technology.

The overall figures for 2010 are presented in the following table*:

	Programs	Students
Ministry of Culture	5	1220
Ministry of Science, Technology and Innovation	14	2648
Ministry of Education	9	1601
In total	28	5469

*) These figures are based on a questionnaire sent to the Danish design education programs and are, therefore, based on the institutions' own definition of design.



itself – that is, as an art form – must be subject to the best growth conditions in order to excel in the global competition. The Design Academy Eindhoven and the Umeå Institute of Design in Sweden are international examples of how this balance can be achieved.

Thus, art-based design schools should reserve and cultivate a space for free, experimental, and visionary design work. The fewer the restrictions – as is the case with all the arts – the more visionary the outcome is likely to be. Results achieved here feed not only into culture in its elite form but also aids in extending the horizons of both society in general and industry. Art-based design work inspires – and should continue to do so.

Improving design competencies in Denmark

Design education in Denmark is in the process of adapting to recent developments in design. Recent years have witnessed a transformation of Danish art-based design schools, and there has been a growth in the supply of design-related programs in universities, business schools, and vocational schools.

Based on the Danish design tradition of aesthetics, human-centeredness, creativity, and artistic development, the Danish art-based design schools

have begun to focus on new design disciplines such as strategic design and design thinking. Furthermore, the art-based design schools have increased their collaboration with businesses – also on an international level – and local authorities, thereby strengthening the cross-disciplinary capabilities of students while providing value to society.

Based on classical academic traditions, Danish universities and business schools offer a variety of design and design-related programs. The programs cover subjects such as integrated design, interaction design, strategic design, and design management. They also focus on design practice in disciplines such as industrial design and technology.

The Danish educational system also offers a number of non-university higher education programs and vocational training of skilled professions in design. This field includes programs related to jewellery, textiles, fashion, and a number of other educations integrating design and business.

The positive developments within the broad landscape of Danish design education, however, need to be focused and further strengthened in order to equip designers with new concepts, models, and tools, and



to make people working with design understand better how to leverage the value of design.

Looking ahead from the current landscape of design competencies, we envision the following scenario in 2020.

4.2 Design competencies – the Committee’s vision

In 2020, Denmark is a society in which people and institutions are influenced by and are a part of the unique Danish design tradition – with the courage to experiment with innovative solutions:

- Design competencies and creative competencies are an integral part of education at all levels in Denmark, from primary to tertiary education.
- Denmark is a frontrunner in educating “T-shaped” designers with a combination of highly specialized skills and general competencies such as creative problem-solving, a global outlook, and the ability to work in cross-disciplinary teams.
- A substantial number of graduates from the social, natural, and technical sciences, especially engineering and business, have competencies in design-related problem solving.

- The Danish design schools have enhanced their solid Scandinavian grounding through material- and form-based design, and at least one school is among the world’s leading design institutions – measured by international student applications, visiting scholars, and global reputation.
- Danish design graduates appreciate the need for design to permeate into the broader society, and they have a global outlook, international experience, and are internationally competitive.
- Danish design programs attract highly-qualified, international design students, staff, and researchers.

4.3 Roadmap

The path to better design competencies can be laid out as follows:

Creativity throughout life

- At its core, design identifies and solves problems in a creative and innovative way. Therefore, everyone should have the opportunity to nurture and develop their creative capabilities throughout life. This should be reflected in the entire educational system from elementary school to post-graduate level. The ability of children, teenagers, and adults to develop ideas

must be strengthened, and they should be given tools to help them develop, organize, prioritize, and realize an idea in collaboration with others.

Better, more flexible, and more specialized design programs

- In order to achieve world-class and internationally competitive design education, the educational institutions must build the best possible environments for teaching design and developing design solutions. Therefore, all institutions and programs should continue to be evaluated according to established international criteria, especially the Bologna Criteria. These include, e.g., critical mass in the individual institution, cooperation with business, and quality of research.
- Denmark has an abundance of design education programs, and the quality of these programs could be strengthened by increasing coordination and cooperation between the programs in order to achieve a higher degree of quality through specialization.
- There is a need for a much greater degree of transparency in the Danish design education system, and it should be possible to obtain a clear overview of the various design programs in Denmark, which is not easily done today.

Furthermore, it should be made easier for students to transfer credits between different institutions within Denmark and the EU.

Focus on new and emerging design disciplines

- New and emerging design disciplines such as strategic design and design thinking should be an integral part of the curriculum in the various design and design-related educational programs. This will enhance the problem-solving capabilities of students. Competencies within the field of innovation processes and methods – in particular, ideation/creativity, understanding users, and conducting experiments (data gathering, data analysis, etc.) are becoming increasingly relevant as design problems become more complex, expanding from products to services to solutions. In general, design education can benefit from being more open to the developments outside of its own disciplines and more inclusive in its approach to the outside world.

Strengthen design as a human-centred, applied art form

- Art-based design education cannot and should not be separated from aesthetics and material-based craftsmanship since these skills are the very

foundation of design. Therefore, the art-based design schools should continually strengthen their foundations based on artistic talent, materials, and aesthetics, especially within areas where Denmark and Danish companies have strongholds (furniture, textiles, jewellery, etc.). The schools should establish a think tank with the task of creating an ideas catalogue and a strategy for developing Danish art-based design and crafts culture.

Create post-graduate design programs at the highest level

- Internationally competitive and privately-paid educational programs for people working with design and design-related topics should be offered to Danish and international participants. The programs should target both the international design community and companies that value the latest design competencies. The programs should include classic design disciplines, strategic design, and design thinking within fields such as sales, marketing, supply-chain management, and innovation.
- Managers in the private and public sectors should use design as a driver for innovation and development complementary to technology-driven innovation. Therefore, executives and designers on all levels

should be able to update their skills through a variety of post-graduate education programs.

Enhance cross-disciplinary collaboration

- Danish design education should increase collaboration with other education programs in order to teach students a multidisciplinary approach. Design education should find ways to bring design students together with students from the natural sciences, the humanities, and the social sciences in general, especially business students. It should be mandatory for art-based design students to engage in at least one major project involving students from other educational programs.

Danish designers and people involved in design-driven innovation must have a global outlook

- Danish design education should increase cooperation with its best foreign counterparts and other foreign educational institutions of the highest quality in order to give their students and staff a global outlook. The mobility and international aspect of Danish design and design-oriented education should be strengthened through exchange programs with the best international schools and by the participation of highly-qualified foreign students in Danish courses.

Design2innovate – collaboration between Kolding School of Design, the University of Southern Denmark, and businesses

With a special commitment to creating responsible economic growth, Kolding School of Design in Denmark is one of the main players in a major regional project focused on inspiring companies to innovate through design.

The project will, among other things, focus on the use of innovative design techniques in businesses and organizations and on user-involvement and user-driven innovation. Design2innovate will offer a course in design-driven innovation targeted at companies with no design experience. In addition, the project will organize a new DesignCamp in autumn 2011 and set up a series of events called “Design Update”, which will present companies and

designers at the international forefront of design. In the long run, the project aims at developing a specialized cradle-to-cradle/ sustainability program for companies, and Design2innovate is currently developing a concept for a “reverse internship”, offering companies the opportunity to camp out at the school for a while.

The project, which was kicked off on 4 March 2011, runs for nearly four years and is funded by the Region of Southern Denmark and the European Regional Development Fund. Project partners are the University of Southern Denmark, Kolding School of Design, Spinderihallerne Vejle, IBC, The LEGO Group, Dong Energy, Design City Vest and the Triangular Area of Jutland.

Source: www.designskolenkolding.dk



Strengthen the collaboration between design education, business, and the public sector

- The collaboration between design education, business, and the public sector should be enhanced. Internships for design students and staff, corporate guest lectureships, and joint development projects enable design students and their teachers to practice their skills, gain insights into the world of business and public service, and provide companies and public authorities with their knowledge and skills. Stronger ties to business and the public sector will ensure that design programs provide designers with relevant skills.
- Designers should increase their understanding of the dynamics of business (strategy, business modelling, and project management) in order to integrate design value better into the workings of business. In addition, business skills (entrepreneurship, innovative business models for creative firms, developing a business plan, managing human resources, and organization) are needed if more designers are to create, manage, and grow larger design firms. Thus, business skills should not only be part of the curriculum in design education, they should also be bolstered through close and ongoing cooperation with business.

4.4. Measurement or success criteria

How can progress and success in this area be measured?

First of all, design graduates should be able to achieve the same level of income and employment as other graduates with equivalent qualifications. Today, many design graduates suffer from higher unemployment, especially in the first years after graduation – and many must eventually find an occupation in activities or jobs not related to design.¹⁶

Secondly, the quality of design education should be subject to evaluation in order to ensure that the quality meets high international standards. This quality evaluation could be done by an international board.

¹⁶ A Danish analysis shows that designers from university education programs more often find employment within the design sector than designers from non-university education programs. However, the unemployment rate is higher for designers with a university level education. *Et billede af dansk design, 2007*, Erhvervs- og Byggestyrelsen.



DESIGN RESEARCH & KNOWLEDGE-SHARING

5.1. Landscape

Design research is a relatively new academic discipline that is still developing. It borders on a multitude of disciplines and offers new ways to identify, re-define, and solve problems. New insights and discoveries in the field of design can improve design education and lead to the invention of new products, services, and concepts that benefit companies and providers of public services. A strong field of design research is a prerequisite for any society that wishes to utilize the full potential of design-driven innovation.

The promise of design research

Overall, design research offers two promises:

- 1) Practice-based design research through which design researchers collaborate with researchers from other disciplines and with businesses or institutions, which can lead to incremental as well as radical innovation. This kind of design research is comparable to the services of professional designers and design consultancies.
- 2) Theory-based design research, which is essential for building the knowledge base of design disciplines and for making design knowledge valuable for people working with design. This kind of design research is comparable to the development and testing of concepts, models, and theories done in other academic fields.

Traditionally, design has been a skilled profession based on vocational training rather than a knowledge profession based on research. The culture of a skilled profession poses a challenge to the development

of design into a knowledge profession. It is the responsibility of the design research community to bridge the gap between well-established research disciplines within the natural and social sciences and the humanities in order to support and enhance the theoretical and methodological qualities of design.

On the other hand, research communities from other fields must be equally open to working with design at the theoretical and methodological level. To some extent, this is already happening in management and engineering as illustrated by Alto University in Helsinki, the new Singapore University of Technology and Design, the D-School at Stanford, ETH in Zurich, the Politecnico di Milano, and similar initiatives to merge design and other fields of research and education. The Creative Enterprise Design platform, launched at the Copenhagen Business School in 2010, is also a way to expand research and education in design from a narrow focus on creative industries to a broader application to enhance innovation, productivity, and growth.

It is, however, important for design research not to get lost when entering into collaboration with other research disciplines. In order to remain relevant and have an impact design research must have a

substantial focus on practice-based research as well as artistic research¹⁷, building on the methodology and thinking which is essential and unique in design.

Danish design research

Denmark holds strong positions in practice-based as well as theory-based design research. In the last decade, Danish design research has taken a big step forward. This is documented by a recent international audit.¹⁸ In order to become *the* design society, design research needs to continue to be strengthened, matured, and accelerated – optimally, embedded in a national educational and research strategy.

So, what is the vision for Danish design research in 2020?

¹⁷ The term "artistic research" describes a kind of research based on art and not on science. Internationally the terms "practise-based research" and "arts-based research" are also used to define this kind of research.

¹⁸ *Evaluation of the Design Research under the Danish Ministry of Culture Overall 2004-2009, 2010*, the Danish Ministry of Culture.



DCDR – The Danish Centre for Design Research

The Danish Centre for Design Research aims to promote design research in Denmark in general and to contribute to the establishment of a strong design research environment that embraces the schools of architecture and design in particular. This research environment has been the foundation for the cooperation between the four schools involved in design research under the Danish Ministry of Culture.

The Danish Centre for Design Research engages in active collaboration with private enterprises. The goal is to make the results of design research available to Danish companies. Thus, the DCDR aims to facilitate the exchange of knowledge about design research and the identification of potential areas of collaboration for researchers, schools, and enterprises on a national as well as an international level.

The Danish Centre for Design Research is charged with:

- gathering and disseminating knowledge about design research in the participating educational institutions
- coordinating ongoing research and facilitating the initiation of new research projects at individual schools as well as in partnerships involving several schools as well as private enterprises
- supporting research environments that engage in active research activities that enable participating researchers to qualify for positions as assistant and associate professors in the university system
- establishing a collaboration with other research institutions in Denmark as well as abroad and forming networks and consortiums within the area of design research
- hosting seminars, conferences, symposiums, etc.
- striving to increase external funding for the centre's activities
- acting in an advisory capacity for research students

Source: www.dcdr.dk and the Danish Ministry of Culture

5.2. Design research and knowledge-sharing – the Committee’s vision

In 2020, Danish design research significantly leverages Danish design education and contributes substantially to innovation in the public and private sectors:

- Danish design research has matured and reached a high international standing.
- Danish design research is acknowledged as an important research discipline and integrated in many other fields of research.
- Design research is a key element in driving Danish innovation and in the development of design professions.
- Danish design research is actively used by – and developed together with – Danish design education, business, and the public sector.

5.3. Roadmap

The following roadmap could be instrumental in strengthening Danish design research.

Strengthen design as a research discipline

- Design research is often multidisciplinary and tends to ignore the traditional demarcations of research

fields. Radical innovation often takes place in the intersections between knowledge fields; yet, design research faces challenges in the form of fierce competition for research funds. Design research must improve its quality and competitiveness and build stronger research consortiums within academia and with public and private partners. This development should give a boost to design research in the competition for public research funding (i.e., the Council for Independent Research and the Council for Strategic Research). Research projects that target societal challenges and integrate design with science, technology, sociology, anthropology, etc. would strengthen Danish research and innovation.

- Steps should be taken in the Danish design schools to initiate PhD-programs focusing on high quality research, including artistic research, thereby providing platforms for unrestricted and, potentially, visionary work.

Establish “Named Professorships” in design and design-based research through international competition

- Danish research institutions must compete with the best in the world. In order both to generate visibility and to attract talent, a number of

chaired or named professorships (time-limited, high-status professorships) should be established. The professorships should be based on private donations similar to the two existing LEGO Professorships at the Massachusetts Institute of Technology (MIT) and the International Institute for Management Development (IMD) in Lausanne.

Increase the coordination of design research and knowledge-sharing

- Danish design research is carried out in a number of fields and in different research environments. Therefore, a national strategy mediating and communicating design research should be developed in order to ensure coordination across all these different fields.
- Postgraduate design research programs should continue to be developed. This implies strengthening and coordinating various design-related research programs.
- There should be a clearer division of labour between the many museums and institutions that disseminate design knowledge. At least one institution should offer an entirely contemporary outlook on design, showcasing cutting-edge design and design solutions to Danish and international audiences.

Create a better and internationalized design research education

- Danish design research should have a regional, national, and global perspective and collaborate with research institutions and businesses abroad. Denmark should work actively to attract talented international students and faculty to contribute to academic programs and research projects on all levels.

Build bridges between design research and business and the public sector

- Close collaboration between design research and business and the public sector is mutually beneficial and should be strengthened. Research can play a key role in the development of new areas of business or as a source for spin-outs (companies founded on the basis of research results). The knowledge and insight created by design researchers should, therefore, be made available to business and public institutions so that they can make use of these new insights in, e.g., innovative and sustainable materials and processes. Moreover, collaboration with companies, etc., will allow researchers to test their results continuously in practice and, thus, broaden the scope of their research.

Redia – a company founded in design research

Redia is a software and design company specializing in rethinking digital dialogue through innovative communication tools. The company is two years old and employs a multidisciplinary team of 9 people. Clients include Arla, Polfoto, and a large number of libraries and museums.

Redia is an offspring of very fruitful collaborations between the Aarhus School of Architecture and the Computer Science Department at Aarhus University. The joint program, called Interactive Spaces, combines design, computer science, and engineering in research and development projects with a strong industrial focus.

All projects are co-funded with industry partners on a 50/50 basis, and all projects have produced 6-7 scientific publications per million Danish crowns spent. The collaboration among design research, computer science, and industry puts a creative pressure on all parties to ensure a payoff in their specific areas.



Bringing substantial added value, the collaborators learn from each other. The companies learn to engage designers and research; the computer science departments learn about end-user value and the value of testing through prototyping; and the design researchers learn about scientific methodology from process to publication. It has heightened the research profile of the design department at Aarhus School of Architecture and made it one of the finest design research units in the world.

Once launched with its original partners, Redia took over the commercialization of the product. It is now in use in a number of cultural institutions, and it has been adapted to tourism agencies, and as a local information channel. After two years, Redia retains a close collaboration with the Alexandra Institute. The collaboration ranges from commercialization to joint research centered on PhD students from the Alexandra Institute.

Source: www.Interactivespaces.net / www.redia.dk

5.4. Measurement or success criteria

How can success in this area be measured?

First of all, research in general is relatively easy to measure on the input side, i.e. the cost side. However, as with innovation or education, what really matters is the output. The output of design research should not only be measured by citation indices or academic rankings but, ultimately, by the impact of design research on society, i.e. on businesses and the public sector.

What matters most is that highly esteemed and influential scholars have an impact on research agendas, policy, and business practises. This requires a "critical mass" of students, graduate students, and researchers. As in sports, a sufficient number of active participants is a prerequisite for an elite – and vice versa.

Since research is a very long-term investment, however, one will have to rely on a mixture of indicators measuring both input and output.

Second, the design research field can be measured by its share of national research funds and private funding and by its quality, size and volume, based on increased interaction with top international research institutions.

BRANDING OF DESIGN FROM DENMARK

6

6.1 Landscape

To be visible in a competitive and global world, one has to make a mark. The benefit of successful branding and a known brand is an established fact – with the right attributes, a brand can create the perceived value needed to outperform competition. In order to become known as the design society, it is necessary to make use of a variety of branding tools to portray what design from Denmark can offer to the world.

The propensity to brand what is not there must however be avoided, meaning that the conveyed image must correspond to reality. If the roadmaps in the chapters 3-5 (for design-driven innovation, design competencies, and design research) are

followed, design from Denmark will to some extent “brand itself”, making isolated branding activities more or less superfluous. Hence, the branding of design from Denmark calls for a clever and balanced approach.

“Danish design” must be brought up to date

In addition to universities and businesses, many countries, regions, and cities now aspire to become world leaders within the field of design.¹⁹ Denmark cannot and should not compete with, for example, Asian countries when it comes to investment in design promotion. If Denmark is to become known as the design society in 2020, it is necessary to develop further and brand the unique Danish design DNA in order to differentiate us from other countries with strong design heritages, such as Finland, the Netherlands, the UK, Singapore, and Korea. A clear and positive image is crucial in the effort to attract international design talent and investments from design companies.

¹⁹ *Mapping of International Design Policies and the Strategies for Leading Design Schools and Research Institutions*, 2011, Quartz + CO for the Danish Enterprise & Construction Authority and the Danish Ministry of Culture.

The term “Danish design” primarily refers to Danish product design from the ‘50s and ‘60s. “Danish design” is widely known and internationally recognized, but the term does not entirely reflect recent developments in the field of design in Denmark. It is necessary to develop further the holistic, human-centred Danish design approach and also to apply it to new and emerging areas such as strategic design and design thinking. Since these new disciplines focus on the very same aspects, it should be possible to revitalize and update the image of design from Denmark and Denmark as a leading design society. Thus, the image of design from Denmark needs to be brought up to date, while, of course, sustaining and promoting the already existing strengths of form-based design, which are very effective branding tools.

Denmark’s reputation as a design nation is still good. In recent years, substantial resources have been devoted to national branding efforts – also in the field of design. The biannual INDEX: Award is, in many ways, a branding success that could be further developed focusing on solutions to grand, societal challenges; the biannual International Design Week



INDEX: Design to Improve Life

INDEX: is a Danish non-profit organization with a global reach. It was established in 2002 and coined the concept “Design to Improve Life”. INDEX: Design to Improve Life is in lockstep with tenets that made Danish design widely renowned in the last century, focusing on humanism, social understanding, and democratic thinking.

INDEX: works globally to promote and implement design and design processes that have the capacity to improve the lives of people worldwide. INDEX: has four tools to fulfill its mission: Large-scale public events, education programs, design labs, and communication. Among these is the INDEX:Award, which is not only the largest monetary design prize in the world but also one of the most recognized international design prizes.

INDEX: offers the Danish design community new knowledge and international networks, new markets, and new business opportunities.

Source: www.indexaward.dk

attracts a great deal of international attention²⁰; and the future Design Consortium will aim at attracting design talent and investment to Denmark.²¹

How Denmark becomes known as the design society

Although events such as INDEX: create international attention, they cannot stand alone. In order to convey the image of Denmark as a leading design society, we need to seize existing opportunities to tell the story of how design from Denmark can improve life and society. We need to integrate branding into the proposed national strategy for Denmark as *the* design society, using existing and future investment in our society as a showcase, whether it is something tangible such as buildings, roads or bridges, or something intangible such as research, education, art, and culture. In order to brand ourselves as *the* design society, we have to become *the* design society. The image of Denmark as portrayed must correspond with reality – otherwise, the branding effort becomes useless propaganda.

²⁰ www.copenhagedesignweek.dk.

²¹ The Design Consortium is part of the Danish government's Action Plan for the Global Marketing of Denmark 2011-2012. Source: www.brandingdanmark.dk.

Furthermore, we must acknowledge that Denmark is a small country and that our image – especially in distant parts of the world – is unclear and, to some extent, outdated.²² In order to increase the awareness of design from Denmark in, e.g., Asia and South America, it could be instrumental to join forces with other Scandinavian countries with which we share a great deal of our design DNA. “Scandinavian Design” is already an established brand, and we should not hesitate to use this brand as a vehicle for promoting design from Denmark.

With respect to design, Denmark is not an island. Our design tradition is heavily influenced by design practice and philosophy in, e.g., Germany and the other Nordic countries. Therefore, many Danish enterprises and designers do not necessarily think of themselves, and do not brand themselves, as particularly Danish. They recognise themselves as part of a Copenhagen Metropolitan Region, an Oresund Region, a Scandinavian or a Nordic tradition. Thus, branding is not just about the one-way promotion of a particular image abroad. It is also about listening and entering into dialogue with

the world surrounding us, finding out what we can learn from foreign design practises. Branding will only truly succeed if we can offer something that the world around us finds relevant.

Another challenge within the field of branding is the lack of coordination between government and business. Designers and design-driven companies often market their products and services without emphasizing their Danish origin. Meanwhile, the government and the public sector use many resources to brand our national strengths, values, and perceived virtues – often, with little or no involvement from the private sector. A higher degree of cooperation between public and private sector branding activities would undoubtedly be mutually beneficial and create a stronger Danish brand.

In summary, if Denmark is to become known as the design society, it is necessary to update the image of Danish design, use existing and future investments as showcases, cooperate with our Scandinavian partners when relevant, and increase coordination among the various branding activities.

The question is: How should design from Denmark be perceived in 2020?

²² *Action Plan for the Global Marketing of Denmark, 2007*, The Danish Government.

6.2 Branding of design – the Committee’s vision

In 2020, Denmark is known as *the* design society:

- Denmark is a global showcase for how design can be used to improve the quality of people’s lives, to create economic value for business, and to make the public sector better and more efficient. Design professionals, university students and faculty, executives, and policymakers from all over the world will come to Denmark to experience the benefits of design throughout society.
- Denmark is a global design hub, attracting international design talent and companies in need of new solutions.
- “Design from Denmark” is an internationally-recognized brand that combines the well-known story of Danish product design, characterized by simplicity, form, function, and aesthetics, with a new story of how Danish companies in collaboration with the public sector and education and research institutions have created a unique capability to implement human-centred design as a driver of innovation.



6.3 Roadmap

The road to fame on the international scene is undoubtedly long, but the following map may be instrumental in achieving success.

Tell the story of “Design from Denmark” and Denmark as *the* design society

- The Committee’s vision of “Denmark as *the* design society” should be at the centre of future government marketing activities. A new communication platform should be developed and made available for all companies and institutions that brand design from Denmark. The platform should focus on design as an important element in a certain Scandinavian lifestyle or experience in which design is a central element, such as architecture, fashion, food, and social behavior, as well as the very fabric of the welfare state model. Furthermore, a special focus should be put on attracting international decision-makers (politicians, executives, investors) and design talent (students, researchers, design professionals).



**THINK
HUMAN**

BUT

THINK
DESIGN

**COPENHAGEN
DESIGN WEEK '11**

1-6 September 2011

By Danish Design Centre
copenhagendesignweek.com

Coordinate existing and future branding activities

- The government should – in close collaboration with companies and institutions that brand design from Denmark on an everyday basis – continue to strengthen its coordination of activities that brand design from Denmark globally. The coordination will increase impact by utilizing the synergies between different branding activities and by aligning the various images of design from Denmark being portrayed abroad.

Use multiple and diverse communication channels

- It is important for Danish design to communicate to all relevant audiences and interest groups internationally. Denmark should, thus, seek to host design-related events, arrange visitation programs to Denmark for international design VIPs, participate in high-profile design events abroad, and make extensive use of the Internet, social media, and new mobile communication devices. The communication activities should be tailored for the relevant target

groups, taking into account their geographic location, cultural background, and age.

Host international design events

- In 2010, Denmark's participation in EXPO, Shanghai, was praised for its presentation of Danish values, including an iconic architectural pavilion. The Municipality of Copenhagen is considering whether to apply to host the "small" EXPO in 2022. If Copenhagen is selected, designed solutions should be made a central part of the EXPO theme.
- The World Design Capital seeks to highlight the accomplishments of cities that are truly leveraging design as a tool to improve the social, cultural, and economic life of cities through a year-long program of design-related events. Designating Copenhagen as World Design Capital in 2020 would further strengthen Denmark's international position in design.
- Finally, the possibility of creating a Danish event focusing on design-driven solutions to societal challenges should be investigated. The event

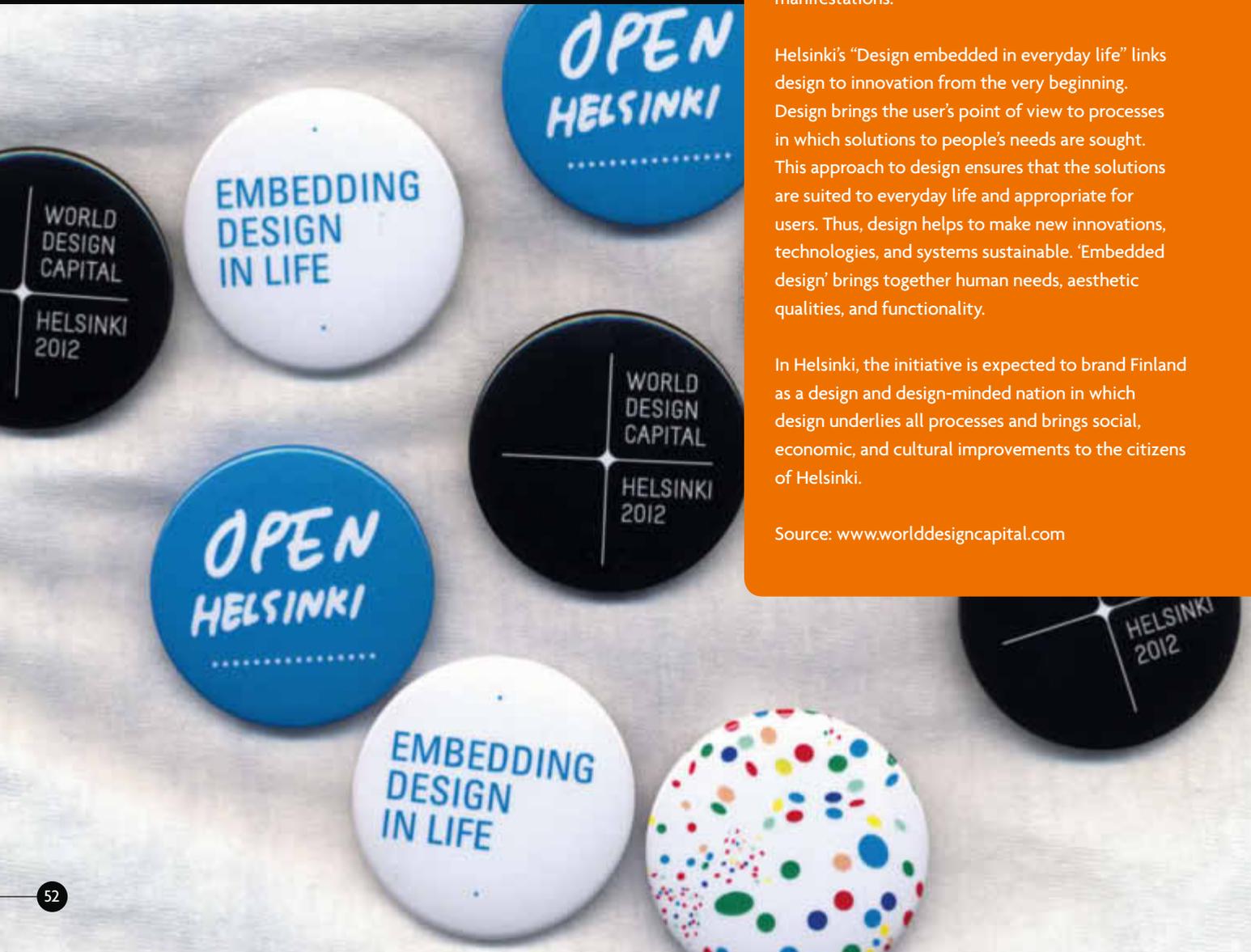
World Design Capital in Helsinki 2012

“Design embedded in everyday life” is the overarching theme of Helsinki’s year as World Design Capital (WDC) in 2012, comprising a wide range of events and projects related to design and its manifestations.

Helsinki’s “Design embedded in everyday life” links design to innovation from the very beginning. Design brings the user’s point of view to processes in which solutions to people’s needs are sought. This approach to design ensures that the solutions are suited to everyday life and appropriate for users. Thus, design helps to make new innovations, technologies, and systems sustainable. ‘Embedded design’ brings together human needs, aesthetic qualities, and functionality.

In Helsinki, the initiative is expected to brand Finland as a design and design-minded nation in which design underlies all processes and brings social, economic, and cultural improvements to the citizens of Helsinki.

Source: www.worlddesigncapital.com



could be based on a competition, inviting leading design schools and design companies from all over the world to develop solutions to particular challenges. Potential synergies with INDEX: which also addresses societal challenges must, of course, be taken into consideration.

6.4 Measurement or success criteria

How do we know when branding activities are successful?

Branding may be the area in which success is hardest to measure. Like beauty, the output of branding is in the eyes of the beholder and can, in principle, only be assessed subjectively. Even though international benchmarks such as the Anholt-GfK Roper Nation Brands Index²³ exist, it would be very difficult to isolate the effect of design branding on Denmark's overall position with this index. Furthermore, there have been efforts to create particular competitive design rankings, but such surveys are sporadic and

the methods tend to vary over time. Therefore, one should not rely heavily on these rankings.²⁴

That, of course, does not make measurement impossible. Indirectly, factors such as the number of international decision-makers within the field of design, design talents, and investments attracted to Denmark, the amount of international media coverage of design from Denmark, the level of exports of design products and services, and our position in the above-mentioned rankings are all positively affected by a successful branding effort.

Another objective is to ensure that upcoming Danish designers are represented at the leading exhibitions, collections, and competitions in the world.

²³ The Anholt-GfK Roper Nation Brands Index measures the range of a country's 'brand image' by combining six dimensions: Exports, governance, culture & heritage, people, tourism and, investment & immigration. Source: www.gfkamerica.com/practice_areas/roper_pam/placebranding/nbi/index.en.html.

²⁴ E.g., *Building a Case for Added Value through Design*, 2003, NZ Institute of Economic Research.

RESUMÉ

IN DANISH

Forord

I de senere år er design blevet andet og mere end formgivning. Det er i stigende grad blevet et middel til innovation i private virksomheder og offentlige organisationer.

Den danske regering forventer, at design som innovationsdriver bliver endnu vigtigere i fremtiden. I efteråret 2010 nedsatte regeringen derfor et udvalg bestående af seks personer - Visionsudvalget Design2020 – som fik til opgave at formulere en vision for dansk design. Udvalget skulle komme med anbefalinger til, hvordan vilkårene for design bedst muligt styrkes, så design i højere grad end hidtil kan bidrage til at løse Danmarks vækst-, produktivitets- og innovationsudfordring.

I denne rapport præsenteres Visionsudvalgets overordnede vision for dansk design i 2020. Rapporten beskriver også de langsigtede udfordringer inden for designområdet, og hvordan disse udfordringer kan løses. Fokusområderne er design som innova-

tionsdriver, designkompetencer, designforskning og vidensspredning samt branding af dansk design.

Det er udvalgets overbevisning, at design kan bidrage til at forbedre kvaliteten af folks liv, skabe vækst i erhvervslivet og gøre den offentlige sektor bedre og mere effektiv. Udvalget anbefaler, at regeringen og Folketinget med udgangspunkt i rapporten udarbejder en fremadrettet strategi for dansk design.

Medlemmer af udvalget:

- Dr. Johan Roos, Moving Minds (tidl. rektor, Copenhagen Business School) (formand)
- Administrerende direktør Anders Byriell, Kvadrat ^{1/2}
- Designer Louise Campbell
- Adm. direktør Jacob Holm, Fritz Hansen ^{1/2}
- Rektor Elsebeth Gerner Nielsen, Designskolen Kolding
- Professor Yrjö Sotamaa, Aalto Universitet, Finland

Udvalgets vision

Udvalgets vision er, at Danmark i 2020 er kendt verden over som førende designsamfund – et samfund, der ansvarligt og på alle niveauer anvender design til at forbedre kvaliteten af folks liv, til at skabe vækst i erhvervslivet og til at gøre den offentlige sektor bedre og mere effektiv.

Visionen vil blive præciseret og uddybet i det følgende. Det er vigtigt at understrege, at der er tale om en vision og *ikke* en strategi eller en handlingsplan. I stedet for udfordringer, mål og midler, anvendes derfor udtrykkene *landskab, vision og køreplan*. Udvalget fokuserer på de langsigtede perspektiver for dansk design – ikke på kortsigtede midler og mål. Af samme årsag fremlægger udvalget heller ikke en præcis plan for, hvordan visionen bør realiseres, da dette bør drøftes og afklares sammen med de relevante interessenter.

Det skal også understreges, at udvalget ikke har haft til hensigt at foreslå en politik for dansk design eller konkrete designpolitiske initiativer. Regeringen, myndighederne og de offentlige institutioner kan og bør være medvirkende til at skabe de rette ramme-

betingelser for design og innovation, men dette er ikke tilstrækkeligt, hvis visionen skal realiseres.

Realiseringen af visionen kræver, at alle parter – herunder virksomheder, individuelle designere og private institutioner – tager medejerskab og bidrager aktivt til at forme fremtiden. At dømme ud fra tilkendegivelserne fra danske designorganisationer og andre berørte parter er tiden moden til en fælles indsats. Udvalget spørger derfor - med inspiration fra præsident Kennedy - ikke hvad samfundet kan gøre for design, men hvad design kan gøre for samfundet.

En tredjegerations designpolitik

Men designpolitik spiller naturligvis en rolle. I 90'erne var Danmark blandt de første lande i verden til at vedtage en designpolitik. Designpolitikken af første generation fokuserede bl.a. på designs potentiale for virksomheder, der ikke normalt anvender design. I "nullerne" (2000-2009) blev der i flere lande lanceret andengenerations designpolitikker, der fokuserede på anvendelsen af design, og i det danske tilfælde på at skabe bedre fungerende markeder for design.

Mange lande er lige nu i færd med at formulere tredjegerations designpolitikker med fokus på design som innovationsdriver i erhvervslivet og i den

offentlige sektor. Udvalgets vision tager udgangspunkt heri, og udvalget anbefaler, at dette også bliver kernen i Danmarks næste designpolitik. En sådan politik bør medvirke til at skabe nye forretningsmuligheder for iværksættere og virksomheder men også understøtte videreudviklingen af eksisterende erhvervsmæssige styrkepositioner. Hovedelementerne i en ny, innovationsrettet designpolitik – dvs. designuddannelse, designforskning, videnspredning og branding – bør underbygge danske styrkepositioner med henblik på at gøre de bedste endnu bedre.

Danmark bør ikke kopiere andre landes designpolitikker. Vi skal formulere en designpolitik, der tager udgangspunkt i eksisterende styrkepositioner og i den danske designtradition, som kombinerer kunstnerisk skaberkraft med forskningsbaseret viden om brugere, marked, kultur og samfund.

Realiseringen af visionen

Udvalgets vision er ambitiøs. Men ambitionsniveauet modsvarer af designs potentiale for at skabe bedre og mere effektive løsninger. Design kan i høj grad medvirke til at skabe et bedre samfund. I udlandet har bl.a. Finland, Korea og Singapore investeret betydelige offentlige og private midler i at fremme brugen af design som en katalysator for værdiskabelse.

Hvis Danmark skal bevare sin plads blandt verdens førende designlande, er det derfor nødvendigt at handle nu.

I mange vestlige lande, herunder Danmark, er der p.t. begrænsede ressourcer til nye investeringer. En økonomisk krise, en aldrende befolkning og stigende efterspørgsel efter bedre velfærdsydelser begrænser ressourcemulighederne. Men da design anvendt som innovationsdriver netop indeholder et løfte om at ”gøre mere for mindre”, er der hverken behov for eller grund til, at Danmark melder sig ind i den internationale konkurrence om nye investeringer i støtteordninger til designere og designvirksomheder. For at udnytte designs potentiale som innovationsdriver skal vi i Danmark generelt blive bedre til at integrere design i større samfundsinvesteringer – eksisterende såvel som kommende. Design skal spille en større rolle end hidtil, når vi bygger fremtidens velfærdssamfund.

I årene frem til 2020 investeres der mere end 100 milliarder kr. i trafikal infrastruktur, nye hospitaler, daginstitutioner, folkeskoler, plejehjem og universiteter. Desuden investerer private danske fonde og virksomheder kraftigt i områder som byggeri, fødevarer og sundhed. Design bør helt fra begyn-

delsen gøres til en integreret del af sådanne store investeringer for at sikre kvalitet, effektivitet og brugervenlighed.

Danmark har et godt udgangspunkt for at blive et førende designsamfund. Den humanistiske tradition er med til at løfte dansk design op på et særligt niveau. Den forbinder Danmarks historiske design-traditioner med nutidig dansk design og differentierer dansk design fra øvrige designnationer. Dansk designs DNA er karakteriseret ved en holistisk og tværfaglig tilgang samt et stærkt fokus på brugeren, hvilket bidrager til innovation og bedre løsninger på komplekse problemer.

Dansk designs DNA rummer således mange af de aspekter, der kendetegner nye designdiscipliner som strategisk design og designtænkning. Danmark har dermed et unikt udgangspunkt for at blive et førende designsamfund. For at nå dertil er det nødvendigt at fastholde og udbygge vores stærke position inden for formgivning samt at omfavne de nye tendenser inden for designområdet.

Hvis Danmark skal bevare sin plads blandt verdens førende designlande, og hvis Danmark skal blive bedre til at anvende design som innovationsdriver,

er det nødvendigt at justere kursen nu. Dette kræver ikke kun en mobilisering af de nødvendige midler og ressourcer men også et stærk og koordineret fokus blandt beslutningstagerne i Danmark. Det kræver en sammenhængende og langsigtet strategi for at realisere visionen om Danmark som førende designsamfund – et samfund, der ansvarligt og på alle niveauer anvender design til at forbedre kvaliteten af folks liv, til at skabe vækst i erhvervslivet, og til at gøre den offentlige sektor bedre og mere effektiv.

I det følgende beskrives udvalgets visioner og forslag til køreplaner for fire områder, hvor handling er nødvendig, hvis visionen skal realiseres:

- 1) Design som innovationsdriver,
- 2) Designkompetencer,
- 3) Designforskning og videnspredning, og
- 4) Branding af dansk design.

Disse områder bør danne fundamentet for en ny, national designstrategi.

1. Design som innovationsdriver

Vision:

I 2020 er design en integreret del af offentlige og private organisationer, og design spiller en central rolle i løsningen af samfundsudfordringer:

- Offentlig-private partnerskaber anvender design til at udvikle innovative løsninger på samfundsudfordringer særligt inden for områder, hvor Danmark og danske virksomheder har styrkepositioner - f.eks. grønne løsninger og velfærdsløsninger.
- Flertallet af danske virksomheder anvender design til at styrke deres innovation, produktivitet og globale konkurrencekraft.
- Danmark har et stort antal specialiserede designvirksomheder, der tilbyder en bred vifte af nyskabende designprodukter og designydelse til det globale marked.
- Den offentlige sektor bruger konsekvent design i udviklingen af bedre og mere effektive ydelser.
- Danmark er fortsat et land, hvor materialer og produkter skabes, udvikles og produceres på nye og innovative måder.

Køreplan:

- *Etablér offentlig-private designpartnerskaber* til udvikling af løsninger på samfundsudfordringer. For at understøtte udviklingen af sådanne løsninger bør muligheden for at etablere en offentlig-privat "Grand Challenge Fund" undersøges.
- *Danske virksomheder bør forbedre deres innovationskraft* ved at brancheforeningerne i fællesskab udvikler en strategi for virksomhedernes brug af design som innovationsdriver. Dette vil på sigt desuden skabe et bedre fungerende marked for designydelse.
- *Designvirksomhederne bør blive bedre til at synliggøre værdien af design* ved at demonstrere, at designydelse kan være omkostningseffektive samtidig med, at de tilfører værdi til både processer og produkter.
- *Internationale IPR-regler (intellektuelle rettigheder) bør ikke være en barriere for danske designvirksomheder.* Danmark bør derfor internationalt arbejde for en harmonisering af de forskellige regler for designbeskyttelse.
- *Den offentlige sektor bør konsekvent benytte design til at udvikle bedre og mere effektive ydelser og løsninger.* Design bør integreres i planlægningen og gennemførelse af større samfundsinvesteringer for at sikre kvalitet, effektivitet og brugervenlighed, og

for at skabe rammerne for udvikling af nye designløsninger med kommercielt potentiale. Offentlige indkøbere bør fokusere på totaløkonomi snarere end indkøbspris samt, hvor det er muligt, inddrage afledte omkostninger og besparelser på andre budgetter end indkøberens eget. Endelig bør den offentlige sektor være mindre risikoavers og mere åben for nye ideer. Designkompetencer bør komme i spil i udvælgelsen af offentligt støttede projekter.

- *Formidlingen af viden om design som innovationsdriver* bør forbedres gennem en omstrukturering eller en klarere arbejdsdeling mellem de institutioner, der formidler viden til virksomheder og offentlige institutioner om designs innovative potentiale.

2. Designkompetencer

Vision:

I 2020 er Danmark et samfund, hvis medlemmer og institutioner er præget af den unikke, danske designtradition og har mod på at udforske nye, innovative løsninger:

- Designkompetencer og kreative kompetencer er en integreret del af alle uddannelser i Danmark, fra folkeskolen til de videregående uddannelser.

- Danmark er førende i uddannelsen af ”T-formede” designere med en kombination af dybe, specialiserede designkompetencer og brede, generelle kompetencer såsom kreativ problemløsning, globalt udsyn og evnen til at arbejde i tværfaglige teams.
- Et betydeligt antal kandidater fra samfundsvidenskab og naturvidenskab, særligt fra ingeniørvidenskab og handelshøjskoleuddannelserne, er i stand til at anvende designkompetencer i løsningen af komplekse problemer.
- De danske designskoler har udbygget deres solide, skandinaviske fundament inden for formgivning, og mindst én af skolerne er blandt verdens førende designskoler – målt på omdømme samt antallet af internationale ansøgere og gæsteprofessorer.
- Kandidater fra danske designuddannelser forstår behovet for, at design anvendes bredt i samfundet, og de har globalt udsyn, international erfaring, og er konkurrencedygtige på internationalt niveau.
- Danske designuddannelser tiltrækker højt kvalificerede, internationale studerende, undervisere og forskere.

Køreplan:

- *Livslang kreativitet* skal styrkes ved at give alle børn, teenagere og voksne redskaber til at udvikle, organisere, prioritere og realisere en ide i samarbejde med andre. Dette bør afspejles i hele det danske uddannelsessystem.
- *Bedre, mere fleksible og mere specialiserede designuddannelser.* Alle uddannelsesinstitutioner bør fortsat evalueres i henhold til anerkendte, internationale kriterier, især Bologna-kriterierne. Disse omfatter bl.a. kritisk masse i den enkelte institution, samarbejde med erhvervslivet og kvaliteten af forskningen. Endvidere bør koordinationen og samarbejdet mellem det overvældende antal designuddannelser styrkes med henblik på at øge kvaliteten via specialisering. Derudover bør der skabes et overblik over alle designuddannelser i Danmark, og det bør være nemmere for studerende at overføre point mellem de forskellige uddannelser i Danmark og EU.
- *Fokusér på nye designdiscipliner* såsom strategisk design og designtænkning i de forskellige designuddannelser for at øge de studerendes evner til at løse komplekse problemstillinger.
- *Styrk design som anvendt kunstform*, da det er selve grundlaget for design. Fundamentet for de kunst-baserede designskoler er kunstnerisk talent, materialeforståelse og æstetik, og det bør som sådan styrkes især inden for områder, hvor Danmark og danske virksomheder har styrkepositioner (møbler, tekstiler, smykker mv.). Skolerne bør etablere en tænketank med det formål at skabe et idékatalog og en strategi for videreudviklingen af dansk design og kunsthåndværk.
- *Etablér design-efteruddannelse på højeste niveau* så f.eks. ledere og designere kan opgradere deres kompetencer. Der bør etableres brugerbetalte design-efteruddannelser på højeste niveau rettet mod personer, der arbejder med design og designrelaterede områder.
- *Styrk det tværfaglige samarbejde* mellem de danske designuddannelser og de øvrige uddannelser for at øge de studerendes tværfaglige samarbejdskompetencer. Det bør være obligatorisk for designstuderende ved de kunst-baserede designuddannelser at deltage i mindst ét større projekt sammen med studerende fra andre områder som humaniora, naturvidenskab og samfundsvidenskab.
- *Danske designere og personer, der er involverede i designdrevet innovation, bør have et globalt udsyn.* Derfor bør de danske designuddannelser øge samarbejdet med de bedste internationale designskoler og med andre, toneangivende uddannelsesinstitutioner, f.eks. via udvekslingsprogrammer for studerende og undervisere.

- *Styrk samarbejdet mellem designuddannelserne, erhvervslivet og den offentlige sektor gennem fælles udviklingsprojekter, praktikordninger for designstuderende og undervisere, og gæsteforelæsnings fra erhvervsfolk og ledere i den offentlige sektor. Forretningsforståelse bør være en fast del af pensum i designuddannelserne og styrkes gennem tæt og kontinuerligt samarbejde med erhvervslivet.*

3. Designforskning og videnspredning

Vision:

I 2020 agerer dansk designforskning løftestang for de danske designuddannelser samt bidrager væsentligt til innovation i den offentlige og den private sektor:

- Dansk designforskning er modnet og har nået et højt internationalt niveau.
- Dansk designforskning er anerkendt som en vigtig forskningsdisciplin og er integreret i mange andre forskningsfelter.
- Designforskning spiller en nøglerolle i dansk innovation og i udviklingen af designprofessionerne.
- Dansk designforskning anvendes af og udvikles sammen med de danske designuddannelser, erhvervslivet og den offentlige sektor.

Køreplan:

- *Design som forskningsdisciplin bør styrkes, så designforskningen bedre kan begå sig i konkurrencen om offentlige forskningsbevillinger. Designforskningen bør øge sin kvalitet og konkurrencekraft ved at bygge stærkere forskningskonsortier på tværs af forskningsinstitutionerne og med inddragelse af offentlige og private partnere. Derudover bør designskolerne påbegynde opbygningen af ph.d.-uddannelser med fokus på forskning og kunstnerisk udviklingsarbejde.*
- *Etablér MSO-professorater (professor med særlig opgaver) i design og designforskning på højeste niveau for at skabe international opmærksomhed om dansk designforskning og for at tiltrække talenter til de danske forskningsmiljøer.*
- *Styrk koordinationen af designforskning og videnspredning ved at udvikle en samlet, national designforskningsstrategi. Udviklingen af designforskerskolerne bør fortsættes, bl.a. via øget koordinations og samarbejde med øvrige designrelaterede forskningsprogrammer. Derudover bør der indføres en klarere arbejdsdeling mellem de museer og institutioner, som formidler viden om design. Mindst én institution bør koncentrere sig om samtidigt design.*
- *Skab en bedre og mere international ph.d.-forskerskole ved at øge samarbejdet med internationale*

forskningsinstitutioner og virksomheder og ved at arbejde aktivt for at tiltrække dygtige, internationale ph.d.-studerende og forskere til Danmark.

- *Byg bro mellem designforskningen, erhvervslivet og den offentlige sektor* for at udnytte synergieffekter såsom udvikling af nye og innovative materialer, produkter, processer mv.

4. Branding af dansk design

Vision:

I 2020 er Danmark kendt som førende designsamfund:

- Danmark er et globalt udstillingsvindue for, hvordan design kan anvendes til at forbedre kvaliteten af folks liv, til at skabe vækst i erhvervslivet og til at gøre den offentlige sektor bedre og mere effektiv. Professionelle designere, universitetsstuderende og undervisere, ledere og politikere fra hele verden kommer til Danmark for at opleve fordelene ved at anvende design overalt i samfundet.
- Danmark er et globalt design hub, der tiltrækker internationale designtalenter og virksomheder, der har behov for nye løsninger.
- "Design fra Danmark" er et internationalt anerkendt brand, der kombinerer den kendte historie om

dansk produktdesign karakteriseret ved enkelthed, form, funktion og æstetik med en ny historie om, hvordan danske virksomheder i samarbejde med den offentlige sektor og uddannelses- og forskningsinstitutioner anvender design som innovationsdriver.

Køreplan:

- *Fortæl historien om "Design fra Danmark" og Danmark som førende designsamfund.* Der bør udvikles en ny kommunikationsplatform, som stilles til rådighed for virksomheder og institutioner, der markedsfører design fra Danmark. Kommunikationsplatformen bør have særligt fokus på at tiltrække internationale beslutningstagere (politikere, ledere, investorer) og designtalenter (studerende, forskere, professionelle designere).
- *Koordinér eksisterende og fremtidige markedsføringsaktiviteter* for at øge effekten af indsatsen. Regeringen bør i tæt samarbejde med de virksomheder og institutioner, der markedsfører design fra Danmark, styrke koordineringen af den samlede danske designmarkedsføring.
- *Anvend en bred palet af kommunikationskanaler* såsom begivenheder, besøgsprogrammer, inter-

nettet, nye sociale medier mv. for at ramme de relevante målgrupper i udlandet.

- *Støt bestræbelserne på at vinde værtskaber for internationale, designrelaterede begivenheder* såsom The World Design Capital i 2020 eller The World EXPO i 2022. Endvidere bør muligheden for at skabe en dansk designevent med fokus på løsningen af samfundsudfordringer undersøges.

MANDATE FOR THE DESIGN2020 COMMITTEE

Background

It is a stated objective of the Danish government that Denmark is to become one of the ten richest countries in the world, and that Danish enterprises are to be among the most innovative. Denmark faces substantial challenges when it comes to growth, productivity, and innovation.

Internationally, there is an increasing awareness of the possibilities afforded by design policies and design when it comes to creating stronger innovation policies and more innovation²⁵. The Danish government introduced its design policy, “DesignDenmark”, in 2007, but this policy expires in 2010.

Recent years have seen a development in the use of design, as well as in design philosophy and design research. Design has come to mean more than shaping and aesthetics; it has increasingly become a strategic element in business innovation processes as well as in a number of societal development processes. A designer’s ability to combine, for

instance, designing with user understanding and overall solutions is becoming more and more of a competitive parameter when companies develop new products and services.

The government expects design to become an even stronger driver of innovation in the future. The government has therefore decided to launch a vision study, “Design 2020”, which is to investigate how the conditions surrounding design can be strengthened, so that design can contribute more to the resolving of Denmark’s growth, productivity, and innovation challenges than it has till now.

Objective

The government will appoint the Design 2020 Vision Committee, which is to help bring into focus the long-term challenges of the field of design. The Design 2020 Vision Committee is to present a suggestion as to how the future use of design, design thinking, and design research can help resolve Denmark’s growth, productivity, and innovation challenges. This includes a description of the long-term challenges faced by the field of design.

²⁵ *Design as a driver of a user-centred innovation*, 2009, EU.

Assignments

The Design2020 Vision Committee is to provide input and suggestions as to how the government can strengthen the conditions for design in the years leading up to 2020. The Vision Committee is to consider the direction of the use of design, design philosophy, and design research. More specifically, the Vision Committee is to,

- Draw up a vision for Denmark as a design nation in 2020.
- Discuss and outline the major challenges in the field of design leading up to 2020, and suggest focus areas that will contribute to the fulfilment of this vision within five to ten years.

The Vision Committee is, among other things, to address the following areas,

- *Design as a driver of innovation* – including suggestions as to how even more companies might use design strategically and practically in connection with innovation processes and business development that increase the value increment of these companies.
- *Competencies* – including a description of the educational competencies presently available and

those that ought to become available to – and in – the business community in order for the business community to be able to use design both strategically and in practice.

- *Research and knowledge sharing* – including a prioritisation of research areas, preferably identifying the key research areas that will be central to the vision in question.
- *Marketing* – including an identification of what Denmark is to be known for abroad when it comes to design, and a coordination of the marketing effort that presents a clear and focused strategy.

Any additional expenditure related to the recommendations of the committee is to be defrayed within the existing financial framework of the ministries.

Organisation

The Vision Committee will consist of an external chairman and five to seven other members who will be chosen on the basis of their personal qualities, their professional activities, and their insight into the field of design.

The Vision Committee will be serviced by the secretariat of the Ministry of Economic and Business Affairs (The Danish Enterprise and Construction Authority), in cooperation with the Ministry of Culture. Other relevant ministries, including the Ministry of Science, Technology and Innovation, the Ministry of Education, and the Ministry of Foreign Affairs, will be involved as needed.

Process and reporting

The Vision Committee is to meet three or four times and is to conclude its work in the spring of 2011. Subsequently, the committee's recommendations are to be presented to the government.

The Vision Committee is to involve the existing design reference group in its work. The latter consists of representatives from the design industry, the general business community, trade organisations, knowledge institutions, and ministries.

