FORA's mission statement

FORA ensures a fact based platform for effective business policy development. FORA enables decision makers to make fact based decisions that account for the current and future challenges faced by private enterprises by linking the current state of knowledge to policy making.

FORA's analyses are cutting edge and based on sound research, empirical evidence, public-private dialogue and partnerships with leading knowledge institutions and international organisations. Through dialogue with these key actors, FORA's analyses interconnect the newest knowledge and the shifting challenges faced by the business world.

Concept Design

How to solve complex challenges of our time

By Jørgen Rosted, Tobias Lau, Casper Høgenhaven, Pernille Johansen

Companies investigated in the study share many of the same problem-solving tools.

Workplace tools at Cheskin, California (see case page 170)

Workplace tools at ReD Associates, Copenhagen (see case page 84)

Workplace tools at Prospect, London (see case page 178)
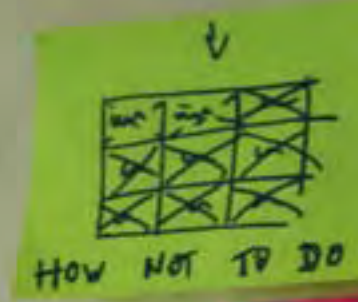
Workplace tools at What If, London (see page 132)
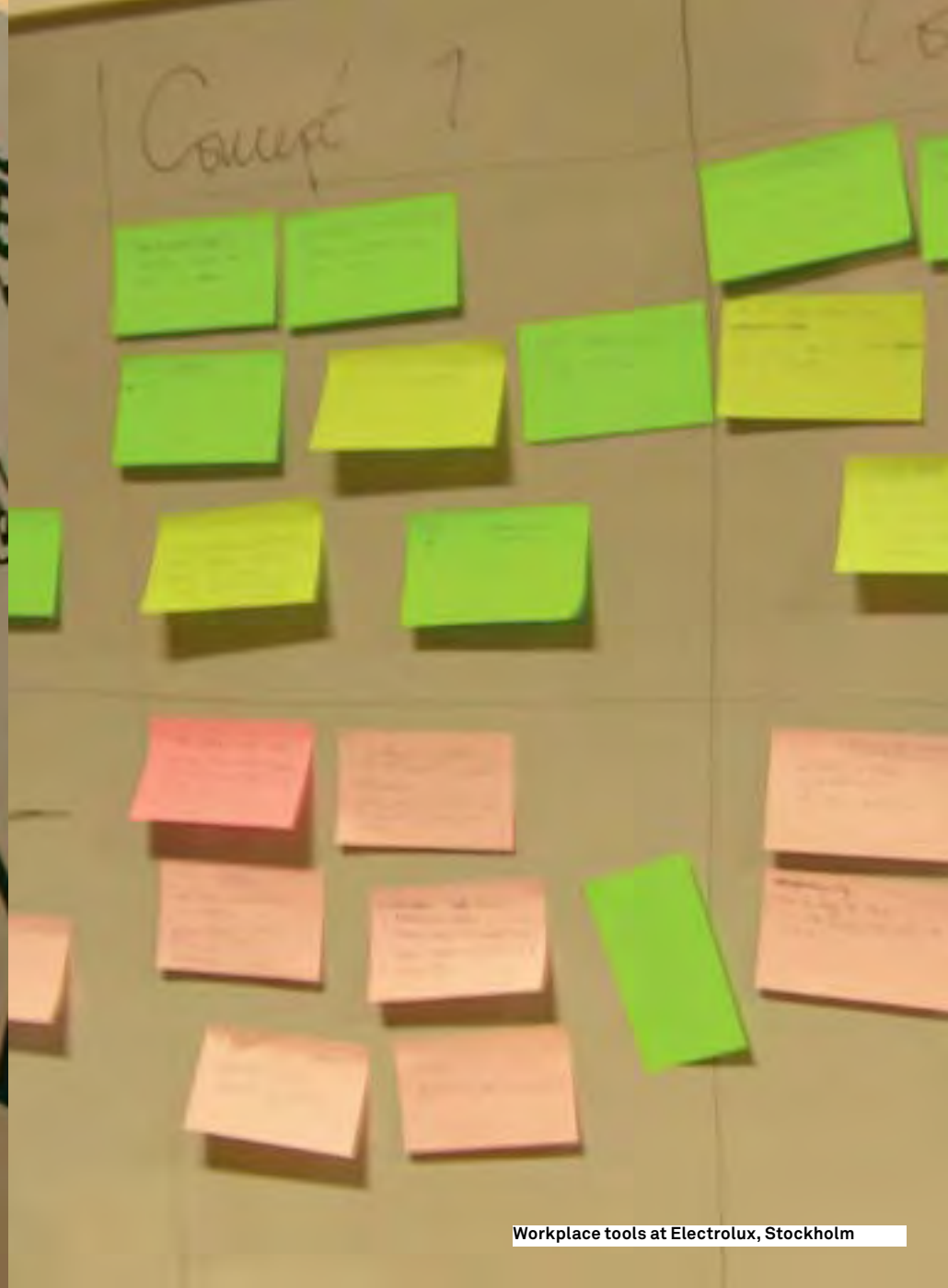
Workplace tools at Electrolux, Stockholm

Workplace tools at Motorola, Motorola Labs, Chicago

Workplace tools, Live/Work, London (see page 144)

Preface

This study has been conducted for The Danish Authority for Enterprise and Construction as a follow-up to the report entitled "Et billede af dansk design" (A View of Danish Design), which was published in April 2007.

The study focuses on how design can be utilised together with other disciplines to create new solutions to the global challenges faced by the private and public sectors in the twenty-first century.

It is our hope that the results of this study will be utilised by a wide range of people – managing directors, marketers, production managers, consultants, designers, engineers and civil servants – both in Denmark and abroad. To design new and groundbreaking products and services that point to a better future requires cooperation that extends across barriers of interest, industry and national borders. It is hoped that this study will contribute to this development.

This study was prepared by a FORA team consisting of the following members:

Jørgen Rosted, Director
Tobias Lau, External Consultant
Casper Høgenhaven, External Consultant
Pernille Johansen, Head of Section

In addition, a number of FORA colleagues have provided valuable sparring throughout the process. These colleagues include:

David Boysen Jensen, Research Assistant
Anders Jørgensen, Research Assistant
Marie Degn Bertelsen, Special Consultant
Tanja Bisgaard, Head of Organisation
Anders Munk Ebbesen, Head of Section
Jakob Øster, External Consultant
Hesham Morten Gabr, Business Strategist
Andreas Graversen, Head of Section

Copenhagen, July 2007

How to read this report

This book consists of seven elements intended to enhance the reader's understanding of the main findings.

The seven elements address different needs of the reader:

The Story For the reader who wants the main findings presented in an easy, direct manner.

The Method For the reader who wants to understand how the main findings are supported.

The Fact boxes For the reader who wants points and topics put into perspective.

The Cases For the reader who wants concrete examples to support the main findings.

The views from the world (quotations) For the reader who prefers subjective opinions on the topics presented.

The Images For the reader who wants a visual perspective of the subjects covered.

Findings For the reader who wants primary sources such as brochures and power point presentations – the 'archaeological finds', so to speak – that have been harvested from travel and company visits.

Enjoy your reading!

1.0
Introduction

Containing the key chapters:

1.1 What is concept design?
1.2 Presenting the study
1.3 Conclusion of the study

1.1 What is concept design?

Today's companies are seeking answers to the question "what?".

What should companies focus on? *What* problems should the companies' innovation solve?

In the past companies wanted answers to the question "how?". *How* do we develop a new product? *How* should it be designed? *How* should it be marketed, and *how* should the company be organised to achieve the best solution?

When companies seek advice and answers to *how* questions they can turn to consulting engineers, designers, advertising agencies or management consultants. Until recently, this has provided a reasonably clear division of labour between different consulting offerings.

In terms of answering questions related to *what* a company should innovate and produce, companies have no obvious place to go. For that purpose consulting engineers, design companies, advertising agencies and management consultants could all be involved. However, none of these companies are single-handedly able to answer the question "what". Hence, we are witnessing industry break-up and gliding.

The study will contribute to shed light on this dynamic and fascinating development – with a particular focus on possibilities and consequences for the design industry.

For the purpose of this study the task of answering the question "what" is termed 'concept design' and the companies working with concept design are termed 'concept design companies'.

Concept design is thus the discipline of creating concepts that answer the question "what".

A new concept is a solution to a problem that has not yet been solved or which so far has been solved in an unsatisfactory way.

A concept can be a single product, a single service, or a combination of different products and services.

New technology can be an important part of a new concept, but a concept can also be created by making surprising new solutions based on well-known technologies or non-technological knowledge.

Creating new concepts and carrying out concept design require at least three different competences that must be combined in a new and untraditional way. The required competences are business, design, and social science.

Business competences are necessary for identifying the validity of the concept in the market as well as potential consequences for the company's business model. Social science competences are necessary to interpret cultural trends, to observe user behaviour and to uncover user needs. Design competences are important when transforming new knowledge on user and market needs into functional and aesthetic products or services.

A successful concept can be measured on several parameters. For example, on whether the solution is a business success or if it solves social or environmental challenges. Successful concepts are not necessarily based solely on their functional characteristics. The experience of the solution can also provide the concept with its primary value■

Figure 1.1 The 3 required competences for doing concept design

concept design

Business

Design   Social science
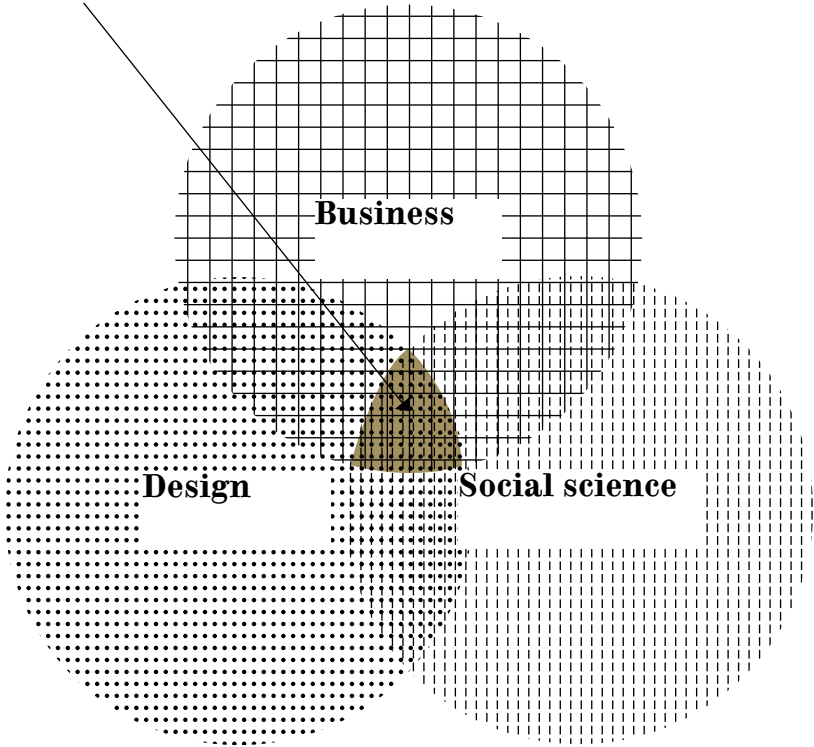
New challenges require a new set of questions…

Concept design companies are faced with a vast array of complex and differentiated problems and questions from their clients. A number of examples have been revealed during interviews with concept design companies. Here follows some examples:

1
What can hospitals do to improve children's experiences during hospitalisation?

2
What can power companies do to make the sale of energy more user-friendly?

3
What can work places do to motivate employees to focus on a healthy lifestyle?

4
What can banks do to motivate their customers to contribute to a pension scheme?

5
What can protein-technology be used for in order to develop new soft drinks?

6
What should the police do when handling pedophilia cases?

7
What will television be used for in the future?

8
What's next after gas-guzzling SUVs?

9
What can companies do to make kilowatt and other energy terms more relevant to people?

10
What does it take to sell water pumps in Africa?

11
What are the greatest challenges faced by kindergartens of the future?

…And new answers

Philips Design, Philips' own design department, has developed a concept that aims to minimise childrens' fear when undergoing a CAT scan. Philips Design has created a room that children pass through on their way to the CAT scan where they can choose a stuffed animal to receive a simulated 'CAT scan' in a miniature CAT scan machine. An animated animal that resembles the stuffed animal then appears on a monitor and 'talks' to the child about what it is like to be scanned. The child's conversation with the stuffed animal provides health workers with the possibility of explaining the process to the child in a calming and comforting manner. Read case page 189.

1 What can hospitals do to improve children's experiences during hospitalisation?

More Associates, a design company located in London, is currently developing a new way to discuss energy that will supplement terms such as 'kilowatt' and 'CO2 ton'. This is taking place in cooperation with the largest power companies and organisations in England and in dialogue with ordinary energy consumers. The intention is to make the discussion of energy more relevant to people on a daily basis, and to drive the public debate concerning future energy challenges. Read case page 205.

2 What can power companies do to make the sale of energy more user-friendly?

Prospect, a strategic design company in London, helped Oxford Health Alliance to design new tools intended to motivate company employees to pursue a healthier lifestyle. Many of the illnesses people suffer from in the Western world are lifestyle-related, such as diabetes, which is often linked to unbalanced diets and lack of exercise. Prospect discovered that by encouraging motivation instead of guilt, employees demonstrated more participation in company health programmes. Among other initiatives, Prospect developed 'Health Futures', which helps people to live in accordance with their own desired state of health. Read case page 177.

3 What can work places do to motivate employees to focus on a healthy lifestyle?

IDEO, a design company in San Francisco, partnered with the Bank of America to improve their brand and customer experience by developing new services. IDEO developed a bank card for Bank of America that allows customers to round up the amount of each transaction. The extra amount is added to the customer's own pension scheme. This enables Bank of America customers to contribute to their pension schemes in a way that is both easy and novel.

Anomaly, an advertising and design agency based in New York City, is currently partnering with protein and health researchers to develop functional soft drinks for a large soft drink company. Anomaly is therefore studying the growing health/wellness market and assisting the client in developing business models and marketing initiatives for the new wellness product.

4 What can banks do to motivate their customers to contribute to a pension scheme?

5 What can protein-technology be used for in order to develop new soft drinks?

Chicago

Gravity Tank

Insitum

Motorola

Skidmore, Owings & Merrill LLP

New York

Frog Design

Anomaly

Nest Home Lab

BBDO Worldwide

Gensler

Smart Design

San Francisco

Cheskin

Jump Associates

McKinsey Global Institute

Adaptive Path

Steve Portigal Consulting

Kickstart International

Prophet Consulting

London

Arup
Live/Work
More Associates
Prospect
WhatIf

The Netherlands

Total Identity
Fabrique
Phillips Design
Van Berlo
Eden
PARK

Denmark

Designit
LEGO
ReD Associates
Kontrapunkt
Hausenberg
1508

Munich

Designworks USA/ BMW
IDEO
Lunar Europe Gmbh
Fujitsu Siemens Computers
Designafairs Gmbh

1.2 Presenting the study

The purpose of this study is to provide a global picture of concept design. How many concept design companies are there in the world? Where are they located? How large are they? And how do they work?

The answers to these questions will help shed light on the term 'concept design'. This will hopefully benefit companies working with concept design or businesses contemplating doing so, but also authorities and institutions participating in establishing the framework that concept design companies depend on.

Constructing a reasonably adequate global picture of concept design companies is of course not a straight forward task. Concept design is a relatively new phenomenon which means that there is no international standard on how to define a concept design company. Therefore, there are no available international statistics on the actual number of concept design companies.

For the purpose of this study we have therefore developed a model for concept design and we have gathered data on concept design companies across the United States and Europe. The study concentrates primarily on independent consulting businesses, but a few in-house concept design departments have also been included.

The study begins in section 2 with an analysis of Danish concept design companies. How many are there? And how do they work? A comparison has also been made between the Danish concept design companies and traditional design companies.

Next, follows a mapping of concept design companies in the United States and Europe. Data on their activities has been collected. On that basis section 3 attempts to identify interesting global hubs for concept design.

The collected data also forms the basis for an assessment of the business models used by the concept design companies, and the future competition and specialisation within concept design and design. These important insights are explored in the first part of section 4 of this study.

Finally, at the end of section 4 we offer an assessment of the driving forces that influence which regions are first and largest in the area of concept design.

1.3 Conclusion of the study

Concepts are solutions to unsolved problems or new solutions to problems that are solved in a poor manner. A new concept can be a product, a service, or a combination of products and services.

The task of creating concepts is referred to as concept design.

For the purpose of this study, a model was created to describe concept design based on the processes and competences applied in concept design.

Concept design works abstractly with questions on what should be produced rather than on how it should be designed. Concepts and business strategies are approached strategically, and multidisciplinary work is performed using a combination of competences from business management, social science and design.

A new concept may require the development of new technology; in that case, engineering competences must be part of the combination of competences, but many concepts are created on the basis of known technologies or through combinations of known technologies.

Concept design may be performed by a company's in-house departments or by independent consulting companies. This study concentrates on the independent consulting or advisory companies.

Through interviews with international experts, the study of websites, and the snowball technique, this study has attempted to map the world's concept design companies.

As part of the snowball technique, follow-up investigations were carried out to determine if the identified companies knew of other companies also working with concept design.

There is no guarantee that all concept design companies have been identified using this process, but it is assessed that the most important and the largest among them have been identified. Most are located in the United States and Europe. A few Asian companies were mentioned, but they are branches of European or US companies, and therefore this study concentrates solely on concept design in the United States and Europe.

Independent concept design companies are a relatively new phenomenon. Just 10 years ago, it was rare that the business world sought advice with regards to concept creation.

Most concept design companies originate in the design industry, but some also come from the world of marketing and advertising. However, concept design is prospering and management consultants and consulting engineers are now moving into the concept design industry. Many new companies have also started working with concept design, and many more are to follow.

As a consequense, all of the companies and international experts approached in connection with this study expect strong growth in concept design, and the discipline is regarded as a critical strategic element in the global competition on innovation.

Concept design company size shows some variation; the smallest companies have between 5 to 10 employees and a few have more than 100, but the typical number of employees seems to be around 70–80. This provides the critical mass necessary to solve complex design challenges, but it is a number small enough for the company to retain its

distinguishing characteristics. If demand for concept design requires a staff of around 100, most companies opt to establish branches in areas with significant client concentration. There are however also smaller companies that focus on solving specialised, complex concept design challenges.

Information has been gathered on the concept design companies' projects, competences, work methods and business strategies. This was accomplished through questionnaires, interviews and reviews of company web sites. The information was used to set up a score system measuring resources companies use when working with concept design.

The score system was used to identify companies working with concept design on a high professional level. Approximately 120 companies were identified in the United States, Canada and in Europe with the resources necessary to work with concept design on a high professional level.

San Francisco, New York and London are home to the greatest concentration of concept design companies with 20 to 30 companies. Los Angeles, Chicago, Boston and Denmark follow with 10 to 15 concept design companies. A Central European belt stretching from the Netherlands to Munich-Stuttgart-Nuremberg also appears to be well on its way to establishing itself as an important concept design region.

The score system was also used to prepare a Top-10 list of concept design companies. This list is dominated by concept design companies from the United States, especially in New York. However, San Francisco, London and Denmark are also home to rather large companies that obtained high scores.

Information on the competences, methods and business strategies also provided the platform for highlighting some of the important characteristics of concept design companies.

The study established 3 archetypes for concept design companies: the holistic concept design company, which focuses on solving the entire problem from the concept planning stage to the design of new products and services; the design-expert concept design company that focuses on the design challenge, but which enters into a dialogue with the client company on concept creation when deemed relevant; and finally, the strategic concept design company that focuses solely on concept creation on a very abstract and strategic level, but which leaves the concrete design task to others.

No basis was found for giving preference to any individual archetype. On the contrary, it is thought that the 3 archetypes may co-exist side by side and in various combinations, but it is recommended that concept design companies work consciously on their business strategies and on building their competences.

Several methods of combining competences were identified. The most widespread is to secure a staff that possesses all the necessary competences, and then designing project teams with the competences relevant to the project at hand. An alternative method – which appears to be on the rise – is collaboration and partnerships. Concept design companies prioritise a single competence or 2 and look for partners that are competent in the lacking competences.

One concept design company was identified in which each individual employee possessed all of the necessary competences. These employees are cost-intensive and require supplementary training, but apparently this method ensures good balance, creativity and effectiveness within the project team.

Information was also obtained from a few in-house concept design departments. Not surprisingly, in-house departments work with concept design in the same way as do the leading, independent concept design companies. It appears, however,

to be an emerging and interesting trend that large multinational companies disengage their in-house innovation and design departments and allow them to work for other companies.

Concept design is undergoing strong progress across the world, and not least with regard to the most abstract and strategic aspects of the discipline. Therefore, it can be expected that we will see a significant rise in the number of strategic concept design companies in the years to come. This does not mean that there will be fewer traditional design projects; on the contrary competition here will increase. There is already a tendency towards the outsourcing of design projects to local design companies that demonstrate a good knowledge of their regional culture. This applies especially to design companies in so-called newly industrialised countries such as China and India. And this is not just because it is cheaper, but also because the quality of design is high.

Concept design companies were asked if there were any special reasons why they had established their businesses or located them in specific areas. One important reason for their location appears to be client company demand. This is the case in San Francisco, New York, London and Central Europe, where there are many leading global companies seeking concept design services.

The presence of universities and design colleges working in a multidisciplinary way with concept design has also been highlighted as an important location factor. This applies especially to institutions such as Stanford University in San Francisco, Parsons The New School of Design in New York, Institute of Design, Illinois Institute of Technology in Chicago and Royal College of Art in London.

Finally, the significance of openness and networking between the business world, design colleges and concept design com-

panies was emphasised as an important element in the formation of global hubs for concept design. Paramount among these were the open culture and interest in knowledge sharing that characterises the atmosphere of the US West Coast in contrast to the East Coast and the more closed working culture found in Europe.

Various government efforts such as educational and research initiatives, and network formation that can drive knowledge sharing and government purchasing, can also play a significant role in the spread of concept design. Denmark is, perhaps, an example of this.

No matter how concept design is nurished it seems an important venture that will help people, companies and organisations to bring design and innovation to life.

The next chapters will unfold the research of the study in more detail∎

Why choose the term "concept design"?

In recent years, we have witnessed the emergence of a range of new concepts describing new ways of creating change and which are related to concept design. International institutions such as the British Design Council and Rotman School of Management use design concepts like "service design" and "business design" whereas the Design Management Institute among others uses the concept "strategic design". However, none of the new concepts offer the exact same focus that is the starting point of this study.

The concept that most closely resembles the purpose of this study is "transformation design" as defined by the British Design Council's research department, RED. This concept describes the need for change in companies and public institutions and offers a way in which the discipline of transformation design can contribute in generating suggestions for improvements.

Transformation design
The term transformation design is defined by 6 characteristics by RED, the former research department of the British Design Council:

1. Defining and redefining the brief
Transformation design begins before the design brief is formulated, working with user groups and organisations to understand the scope of the issue and define the right problem to tackle. In this way, up to half of a project's schedule may be given over to problem definition and creating the right brief to answer.

2. Collaborating between disciplines
In transformation design the designers are not always 'designers'. Whereas most designers will have experience of collaborating with colleagues from related disciplines such as engineering, marketing and R&D, and may seek advice from specialists during a project, transformation design is truly interdisciplinary, forming teams in which economists, policy analysts, psychologists and others all take part in the actual design process.

3. Employing participatory design techniques
Groups in the emergent transformation design community have begun to employ participatory design techniques that involve users and front-line workers in the design process – capitalising on their own ideas, knowledge and expertise, and uncovering some of their latent needs and desires.

4. Building capacity, not dependency
Transformation design acknowledges that 'design is never done'. Because organisations now operate in an environment of rapid and constant change, the challenge is not how to design a response to a current issue, but how to design a means of continually responding, adapting and innovating.

5. Designing beyond traditional solutions
It is no longer possible to predict from the outset that any particular problem can be solved with a new product or market offering. With industries and institutions seeking to reinvent themselves, the right solution may just as easily be found in a new process, service offering, experience, system approach, or indeed a new business altogether.

6. Creating fundamental change
What is noteworthy about transformation design projects is that they aim high: to fundamentally transform a national system or a company's culture.

2.0
Concept design
in Denmark

Containing key chapters:

2.1 Who is doing concept design in Denmark?
2.2 Who is really doing concept design in Denmark?
2.3 Is concept design good business?

2.1 Who is doing concept design in Denmark?

Concept design is a new phenomenon and the term is not yet covered by a collective perception. This means that the businesses involved in concept design can have quite different ideas on what actually constitutes concept design. This makes it difficult to identify concept design companies by using traditional statistics or by directly asking companies on their use of concept design. Therefore, the approach to data collection was somewhat ambiguous.

The data gathering process began by asking Danish experts within the design area about their knowledge of companies working with design and user insights in Denmark. Experts were also asked if they knew of other experts who may lead the way to additional companies within design and user insights. Following this approach, an 'electronic snowball' was initiated to identify all relevant companies. See the method box on page 56 for more information on the mapping of Danish concept design companies.

In total, we identified 287 Danish companies working with design and/or user insights and which are therefore potential concept design companies. The survey was limited to companies with 3 or more employees (see the background report on www.foranet.dk).

Far from all of the identified companies will consider themselves as actual or potential concept design companies. In fact, many of them are not even familiar with the term. This is, however, unavoidable when new phenomena are investigated and where new territories are defined.

Of the 287 identified companies, 145 agreed to participate in a questionnaire survey in which they were asked about the services they sell, among other questions. 58 Danish companies reported that they sell concept design, which is a surprisingly high number.

For a more nuanced but also a more precise description of the Danish design companies, the questionnaire also investigated which competences they employ in their work, which methods are used and who design companies work with at the client company. It has also been investigated who design companies work with through their network relationships.

The information was used to create a map of the Danish concept design companies and it is estimated that 10 Danish companies have the resources necessary to work with concept design on a high professional level∎

How to map concept design companies

Concept design is a broad field encompassing a variety of competences, knowledge and companies. This implies that it is difficult to precisely delimit and identify concept design companies. Therefore, the analysis has been carried out with the design industry as the starting point, but it has also proved necessary to include companies from outside the design industry.

With traditional industry analyses it is possible to examine the available business statistics and use them to identify specific groups of companies. The problem with concept design companies is that they are defined on the basis of entirely different criteria than those used in traditional business statistics.

As an alternative to the traditional method, it was decided to identify and gather information about the relevant companies. This presupposes a reasonably precise and operational definition of which companies are interesting for the analysis.

The following criteria were used for companies interesting to the survey. The company must meet at least one of the following three criteria:

1. The company sells products and prototypes in which design competences and processes are decisive elements in the creation.

2. The company sells services and creative ideas in which design competences and processes are decisive elements in the creation.

The problem with concept design companies is that they are defined on the basis of entirely different criteria than those used in traditional business statistics.

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3. The company sells new user insights that contribute to change processes and innovation, where social science competences, business competences and design competences and processes are decisive elements in the creation.

The snowball process can be divided into three stages

The 287 identified companies were sent a questionnaire in which they were asked, among other things, about their design services, employee composition, the methods they employ, and who they cooperate with.

The three criteria have been applied using the snowball method combined with desk research and interviews with experts and key knowledge individuals.

The snowball method is used to identify actors in a population or network who are not immediately accessible through quantitative approaches such as business statistics or commodity codes.

The snowball process can be divided into three stages:

1. The snowball is launched by asking a number of design industry experts and key players about their knowledge of companies that meet one or more of the three criteria listed above. These people are also asked if they know of any other experts or key knowledge individuals who may have knowledge of these companies.

2. The snowball continues by sending new questionnaires to those experts identified by the key knowledge individuals and companies identified during stage 1.

3. The snowball continues until it is determined that all interesting companies have been referred to.

The snowball rolled for 3 months and we experienced a maximum of 3–4 days between replies. 287 companies meeting at least one of the three criteria were identified.

There is, of course, no guarantee that all relevant companies have been identified, but it is likely that the most important players have been found.

The 287 identified companies were sent a questionnaire in which they were asked, among other things, about their design services, employee composition, the methods they employ, and who they cooperate with. They were also asked about profits, turnover, number of employees and the industries from where their clients come. Of the 287 companies surveyed, 145 companies completed and returned the questionnaire.

Since concept design is a multidisciplinary approach normally undertaken by interdisciplinary teams, it was decided to only use data for companies with 3 or more employees. 49 of the 145 companies that completed the questionnaire had fewer than 3 employees. This results in 96 companies employing 3 or more employees being included in the analysis. Omitting companies with fewer than 3 employees also means that the material can be considered representative (*see also background report on www.foranet.dk*).

Of the 96 companies, 58 indicated that they sell concept design.

Fashion design

As a starting point companies in fashion design were part of the study. A few fashion design companies completed the questionnaire and have shown that they work with concept design. However, since only a few companies completed the survey the material cannot be considered representative; hence fashion design is not included in the study.

2.2 Who is really doing concept design in Denmark?

The information gathered from the questionnaire was used to create a score system by which to grade the 58 companies that had indicated that they sell concept design. The score system was based on an assessment of competences, methods, strategic interplay with clients and network relations.

Companies that extensively apply the competences and work methods when creating concept design were assigned a high score.

Concept design necessarily involves the top management of the client company as well as the innovation department. Therefore, a high score was also assigned to companies that cooperate with the client's top management and/or innovation departments whereas no score was accredited to companies working with client departments that are further removed from the strategic decision-making.

Since concept design is multidisciplinary and often requires joint cooperation, a high score was also assigned to companies that engage in extensive collaboration with other players. See the method box on page 64 for more information on the score system structure.

The maximum achievable score is 55 points. No company was awarded the highest possible score, but a number of companies did score well.

The score system was used to identify concept design companies with the resources and methods needed to work with concept design on a high professional level. If a company selected the *to a large extent* option for questions about competences and methods while selecting the *to some extent*

Table 1.1 Company ranking in the score system

Points	Number of companies
0-10	4
11-20	20
21-30	10
31-40	18
41-50	6
51-55	0
total	58

option for the other relevant questions then the company will score a total of 38 points, which was the score subsequently chosen to serve as the lower limit for identifying companies working with concept design on a high professional level.

10 Danish concept design companies were assigned total scores of 38 points or higher.

Since concept design is a relatively new phenomenon the fact that as many as 10 Danish consulting firms work with concept design on a high professional level may seem surprising. Only 10 years ago there was scarcely a single Danish consulting firm working with concept design. Of the 10 companies, 4 started operations within the last 5 years and an additional 4 within the last 10 years. Companies older than 10 years originate from the traditional consulting and design industries and have only in recent years moved into the concept design business.

There is no doubt that the increased competition on in-novation leads the business world to increasingly engage in developing new concepts and demanding more concept design. Therefore, it is interesting that in addition to the 10 companies already working with concept design on a high professional level, 48 other companies indicated that they also work within the field of concept design. 14 of these scored between 31 and 38 points and are thus ranked closely behind the top-scoring companies.

The study also revealed that an increasing number of micro-companies are entering the concept design business, and that more will surely follow in the years to come. There are also signs that consulting companies within design and architec-ture, advertising agencies, consulting engineers and manage-ment consultants are also moving into concept design.

Thus, much indicates that Danish concept design is currently experiencing an extremely interesting dynamic development.■

How to rank concept design companies

The companies were assessed on the basis of 11 criteria that together make up the score system used to assess the individual company's ability to work with concept design.

58 of the 96 companies that completed the questionnaire indicated that they sell concept design.

It is apparent, however, that the term 'concept design' may be perceived differently from company to company. Therefore, it was important to explore each of the 58 companies in depth to investigate the extent to which they meet the criteria established for concept design companies for the purposes of this analysis.

The companies were assessed on the basis of 11 criteria that together make up the score system used to assess the individual company's ability to work with concept design.

The score system results are based on the completed questionnaire submitted by each individual company.

The questionnaire included questions on how companies apply their competences, methods and approaches and how they interact with their networks etc. These are the answers that make up the 11 criteria.

The companies were asked to provide their answers on a 5-interval scale ranging from not at all to a very large extent. Companies indicating a reply

of a very large extent were assigned 5 points in the score system. If a company indicated a reply of a large extent it was assigned 4 points and so on. The highest possible score in the score system is thus 55 points.

The 11 criteria are weighted differently depending on their importance of working with concept design. The weighting was performed by selecting a critical value as the lowest possible value needed for the company to be assessed on the criterion in question. For example, a company in criterion 1 (competence in gathering data on user behaviour) would have to answer to a large extent or a very large extent to achieve any points at all in this criterion category. If the company replies to some extent, to a small extent or not at all, no points are assigned. Critical values for the remaining criteria were selected in a similar manner (Table 1.2). *See the following page.*

Companies indicating a reply of a very large extent were assigned 5 points in the score system.

Note: Criteria weighting 'High' implies that companies are to answer either to a very high degree or to a high degree to honour this criterion. 'Medium' implies that a company is to answer to a very high degree, to a high degree or to some degree in order to achieve a score in this category.

Table 1.2 Overview of the weighting of criteria in the score system

Criteria	Criteria No.	Description	Criteria weighting (note)	Minimum points to be categorised as concept design company	Maximum points to be categorised as concept design company
	1	Competences in collecting data regarding user behaviour	High	4	5
Competences used today	2	Competences in interpreting user data	High	4	5
	3	Competences in utilising knowledge about users	High	4	5
	4	Competences in collecting data regarding user behaviour	Medium	3	5
Importance of competences 5 years from now	5	Competences in interpreting user data	Medium	3	5
	6	Competences in utilising knowledge about users	Medium	3	5
Methods and tools	7	From the social sciences and the humanities	High	4	5
	8	From economy and business economy	High	4	5
Client level	9	Consumer insight	Medium	3	5
	10	Strategy or innovation department	Medium	3	5
Network	11	Companies from other industries	Medium	3	5
Total				**38**	**55**

By looking at how companies apply their methods and tools you can assess which kind of challenges the company must be equipped to handle.

The basis for the individual criterion weighting is as follows:

Criteria 1, 2 and 3 deal with the companies' current utilization of competences. These criteria are weighted more heavily in the score system as the companies must have replied to a large extent or to a very large extent in order to obtain points for these three criteria. It is important that a company master these three competences as this will lead to a better understanding of the client-company's market as well as customers.

The next three criteria – 4, 5 and 6 – deal with the company's assessment of the importance of competences 5 years from now.

These three criteria are not weighted as heavily as the previous three criteria concerning the company's current utilization of competences. Companies could answer to some extent, to a large extent or to a very large extent and still receive 3, 4 and 5 points, respectively. Since concept design is a new discipline for many companies they may not be very strong in the area of competence utilization.

Therefore, it was decided to include the criteria on the importance of skills 5 years from now. The answers may provide an indication of the extent to which companies not currently mastering the required skills are conscious of their own potential.

The two method criteria – 7 and 8 – are heavily weighted in the score system. For both criteria the companies were to indicate replies of to a large extent or to a very large extent (4 and 5 points). By looking at how companies apply their methods and tools you can assess which kind of challenges the company must be equipped to handle.

Client-level criteria – 9 and 10 – are weighted with 3, 4 and 5 points, respectively, in the score system. These two criteria provide information on the type of problem the company faces. There are typically some differences in the type of problems a company is faced with depending on which client department the concept design company is working with. If the company is a competent concept design company, it will be possible to cooperate with the client company on a higher and more strategic level. However, these criteria are not weighted as heavily as e.g. the company's competence utilisation.

The last criterion – 11 – deals with the company's use of networks. This criterion is weighted with 3, 4 and 5 points.

Particularly in smaller companies networks may serve as an important element in working with concept design. Companies that lack the required skills may bring these competences in by cooperating with other companies.

The score system does not take into account the composition of the workforce in the company. Companies who may not possess the right resources on paper may still possess the skills in-house to carry out concept design.

For a company to be considered a qualified concept design company, it must have obtained a total point score equivalent to the total of the minimum values possible within each of the 11 criteria categories – that is 38 points or higher as shown in table 1.2.

However, it is not necessary for companies to obtain points in all of the criteria categories. A company may very well obtain 0 points on an individual criterion if this is compensated by a higher score in the other categories. This approach was adopted because companies that do not possess all the necessary skills to perform concept design may succeed in doing so by working with other companies that do possess these skills. Therefore, the company in question can be ranked as a concept design company (*see also the background report on www. foranet.dk*).

1508

Copenhagen
est. 2000

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Number of employees: 45
Professional tradition: Design

Case:
What characterises the kindergarten of the future?

1508 is a multidisciplinary design company working within three business areas: digital design, identity design and service design. Deeply rooted in the user centered tradition 1508 has since its foundation engaged in a policy of involving end users in the design process. In recent years, 1508 has strengthened its design offerings within intangible products such as service and experience.

1508 was given the task of challenging a classic core public service – childcare. How could the service be improved for children, parents and educators alike? Copenhagen Living Lab and the Copenhagen Institute of Interaction Design partnered on the project which was commissioned by the Danish Authority for Enterprise and Construction. The focus of the project was a kindergarten called "Jorden Rundt", located in Ørestad City in Copenhagen.

The project was carried out over the course of four months and consisted of research, analysis, idea development and conceptualisation. Among other things the research aimed to map the complex system of relations and "touch-points" that characterise childcare service. This mapping was performed using a combination of observations of the everyday lives of both parents and the kindergarten with interviews and workshops covering both educators and parents. In close cooperation with CIID and CLL, 1508 mapped a range of needs and problems that led to the birth of new concepts for childcare services.

One group of ideas and problems generated by the project dealt with preparing parents and children for the kindergarten world. What needs to be done when a child begins kindergarten? Which unwritten rules would be useful to know? How does everyday life look from the kindergarten's perspective? The concept encompassing this group of ideas is called *Ready smart start* (*Klart smart start*).

When a child starts kindergarten the parents receive a suit-case containing information on everyday life and rules at the kindergarten. The suitcase symbolises the journey about to be embarked upon by both parents and children alike. It can be used both in a practical way and experientially to guide children and parents through a good childcare experience. The contents of the suitcase provides parents with insight into otherwise unspoken cultural codes that later on might lead to misunderstandings if not sufficiently explained.

1508, Copenhagen (photo Monica Bach)

1508, Copenhagen (photo Monica Bach)
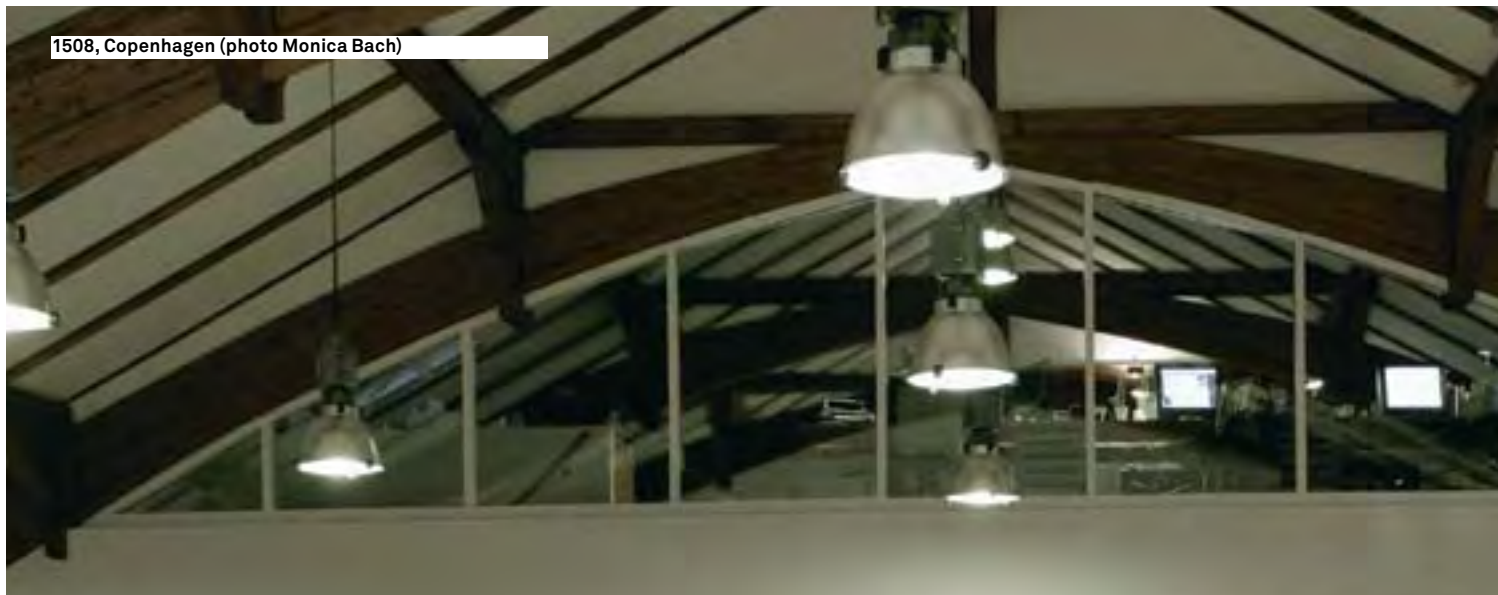
Designit

Århus | hq.
est. 1991

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Number of employees: approx. 75
Professional tradition: Industrial design, communications design and innovation.

Case:
What does a new product do better than an existing product targeting the same customer on the same market?

Designit is a strategic design company focusing on four main areas: communications design, product design, digital design and innovation. Designit implements design on all levels of a client's value chain, and has the skills to perform all of the services necessary when launching a product in the market including research, user studies, prototype development, testing, product design, packaging design and marketing campaigns.

Designit does not offer all of these services to every client every time. They may focus only on one individual phase such as product design and communications if that is what the client requires – but the service provided is always influenced by the total skill set. Today in fact, product design, communications and product launching are Designit's primary sources of income.

Projects concerned with clients' future innovation strategy comprise approximately 25 percent of Designit's work, and according to Designit partner David Fellah, this will become increasingly important to the business in future. "We are becoming better and better at either helping to manage our client innovation processes or assuming the innovation processes on their behalf", explains Fellah.

Presently Designit is working with a food company to utilise a new technology in developing a new type of product intended to replace the customer's existing product. This is an approach that will prove costly to the food company as an entire product type potentially could be phased out before its time, which poses a big challenge to the profitability of the product.

The food company gave Designit a free hand to explore how the product could be "thought" and Designit began to develop insights into the opportunities and consequences related to the client's production apparatus and sales channels.

All relevant Designit departments were part of this interaction. User research was carried out to provide designers and developers with input and insights. The collected information was explored in cooperation with the client in ongoing workshops in which a number of concepts were proposed or created. The concept has not yet been made public, but is scheduled to be launched on the European market within the next 3 years.

DesignIt, Århus

"We are becoming better and better at either helping to manage our client innovation processes or assuming the innovation processes on their behalf"

David Fellah,
partner, Designit, Copehagen,
in conversation about this study

ReD Associates

Copenhagen | hq.
est. 2004

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Number of employees: 50
Professional tradition: Anthropology, sociology, economics, psychology, political science

Case:
What is the long-term innovation strategy for an industrial company?

ReD Associates is an innovation and strategy company that provides consulting services to companies and public authorities in the areas of innovation strategy, methods, and concrete innovative solutions. ReD Associates assist their clients in achieving a deeper understanding of customer and user needs. The companies' product and business development is targeted to match this understanding.

ReD Associates has five designers working full time to develop and design concepts, but it does not consider itself to be a design company. "We don't do pure design projects. We don't work with solutions that are pre-defined and pre-conceived with regard to content", says Frederik Wiedemann. "Working in the early innovation phase necessitates an openness towards understanding that solutions might not involve designing a product – it may perhaps be more important to transform the client's development processes or to develop entirely new business models".

Among others, ReD Associates is working for one of Denmark's largest industrial enterprises in a number of areas. One of their projects is to develop a general direction and ambition for the client's innovation efforts over the next 10–20 years. ReD Associates calls this concept the client's 'Innovation Intent', which refers to the general purpose of uniting and directing a company's innovation strategy. In order to reveal this 'intent' ReD Associates prepares a selection of future scenarios to illustrate what the company could be producing in the future, which markets the company could focus on, and how it might understand its own role in the world.

Among other findings, the project includes new proposals for concepts and solutions based on insights on user needs, market challenges and analyses of the company's existing innovation ability.

User needs are identified with the help of ethnographic field work and subsequent anthropological and psychological analyses of the data. This is compared with a more macro-orientated perspective of the technological and market-based developments. "Our strategic recommendations are heavily based on our insights into human behaviour," says partner Frederik Wiedemann.

This is one example of the way in which ReD Associates works. The strategic recommendations are often delivered to the client in unorthodox ways: text-heavy consultant's report are generally substituted by user profiles, need patterns and illustrated concepts for products, services or business models.

ReD Associates, Copenhagen

LEARNING PROCESS

YOUR DAILY CHALLENGES

"We don't do pure design projects. We don't work with solutions that are pre-defined and pre-conceived with regard to content"

Frederik Wiedemann,
partner, ReD Associates, Copenhagen,
in conversation about this study

Of the 96 companies with three or more employees which responded to the questionnaire, 58 companies indicated that they work with projects within the product area of concept design.

Most companies engage in several different product areas and some companies engage in quite a few. The majority engage in 2 – 3 product areas while a handful of companies focus on a single product area.

For the companies as a whole, concept design constitutes the largest product area, comprising 21% of total turnover. Next are three areas that comprise between 16% and 17% of total turnover: graphic design, communications design and digital and multimedia design. The least important product areas in terms of turnover are product and industrial design, interior and exhibition design and the category 'other' with between 9% and 11% of annual turnover (see figure 1.2 on the following pages).

Figure 1.2 Distribution of total turnover of selected product areas

16% — Digital and multimedia design

21% Concept design

11% Product and industrial design

17% Communication design

10% Interior and exhibition design

16% Graphic design

9% Other
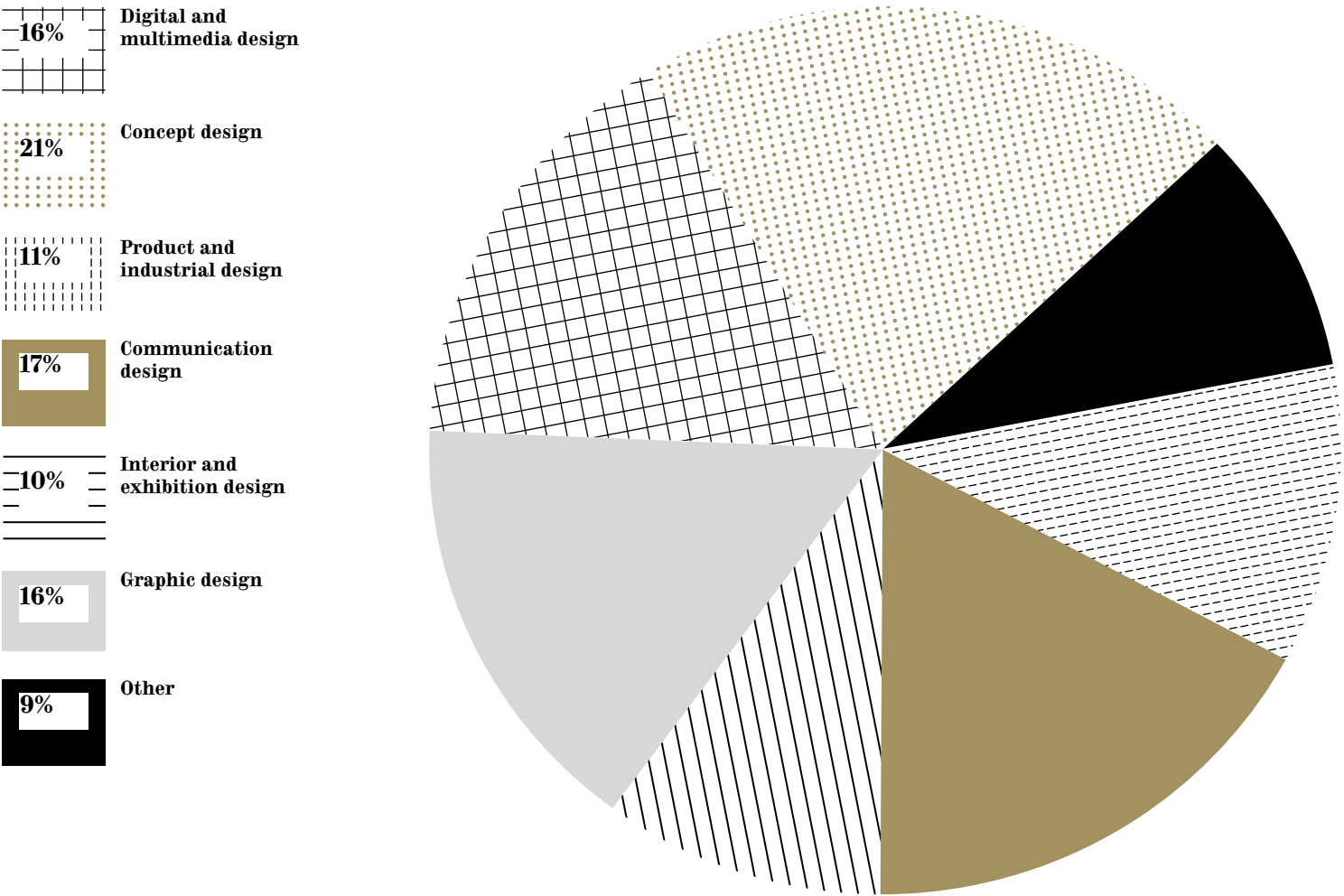
Note: calculated on the basis of the companies' assessment of the percentage of turnover generated in the different product areas within the following ranges: 1–24%, 25–49%, 25–74% and 75–100%.

Note 2: Turnover distribution applies to the 89 companies that provided turnover figures in the study. These figures may be considered representative of turnover distribution in design companies employing more than 3 people, but not for the design industry as a whole, which in 2007 also covered 4,800 companies with fewer than 3 employees. (see background report available at www.foranet.dk)

That concept design is a new and diversified area is evident when looking at the industry categories of the 10 selected concept design companies. Industry categorisation is the method by which the Danish Commerce and Companies Agency categorises all Danish companies within a particular industry sector. Industry categorisation is made on the basis of information provided by the company and submitted to the Danish Commerce and Companies Agency. 2–3 concept design companies work within design, advertising and architecture, respectively. A single concept design company is categorised within software development, R&D and management consultancy (Table 1.3).

Table 1.3 Industry categories in which the concept design companies in this study are categorised

Industry code	Industry	Number of concept design companies
748720	Fashion design and industrial plant design	3
744010	Advertising	2
742040	Consulting architectural activities	2
741490	Other business and management consultancy activities	1
743090	Other technical consultancy	1
742200	Software consultancy and supply	1

"It's more common for clients outside the executive suite to ask big, open-minded questions about how to disrupt the category. Maybe they were asking those kinds of questions a long time ago, they just didn't know where to go."

Steve Diller, partner, Cheskin,
innovation consultancy firm, San Francisco,
in conversation about this study

"I think that what this new industry has in common is that there are complex problems out there. And clients don't know who they should call to get them solved. Normally they would call their advertising agency, market researcher, design house or what have you, and today a lot of these people are handed complex problems by clients because it's not quite clear who should be doing them."

Dinesh Goburdhun, Senior Team Lead,
Gravity Tank, creative consultancy firm, Chicago,
in conversation about this study

Architecture firms and concept design

The Danish study identified a number of companies working with concept design within architecture and city planning.

These include independent planning and consultancy companies focusing on the importance of global development to architecture and city planning, as well as to public usage of architecture and urban spaces.

Based on surveys and methods equivalent to those employed by concept design companies within other sectors, concepts and models are created which architects and city planners use when designing buildings and urban spaces.

3 of the Danish concept design companies working within architecture and city planning achieved a score equivalent to the scores of the 10 identified Danish concept design companies.

The international study identified only 2 concept design companies specialised in working with concept design within architecture and city planning.

Concept design within architecture and city planning appears to be more widespread in Denmark than elsewhere.

The Danish concept design companies within architecture and city planning were not included in the study, as their presence may have led to a slightly skewed impression of concept design in Denmark.

2.2.2 What characterises a concept design firm?

Concept design companies in Denmark are different from traditional design companies in a number of areas. The most important of these are: competences, methods, client cooperation, and client industries.

The differences are not fundamental, they are rather subtle in their nature. Some of the traditional design companies utilise the same competences and methods as the concept design companies, but this practice is not as widespread and it is not considered as important.

The following section covers the most important differences and characteristics.

"An increasing number of clients come to us and say 'We don't know what products to bring to market – tell us what to do'. So the recommendation we do is around the clients' products, services, financial models and customer experience."

Stuart Hogue,
Strategic Director, Frog Design, New York, in conversation about this study

Competences

There is a striking difference between the competences employed in design companies and concept design companies. Among other things there is a significant difference in the extent to which the concept design company uses its competences to investigate the client's users. While all concept design companies utilise these competences only 21 to 43% of traditional design companies do so. (Figure 1.3)

The questionnaire asked:
"How often does your company use the following competences?" The percentages indicate the share of companies replying "to a large extent" or "to a very large extent".

Figure 1.3 Competences used by concept design companies and design companies

	0	20	40	60	80	100

Product design — 60% / 72%

Technological competences — 60% / 39%

Competences in surveying the client's current and potential markets — 80% / 24%

Competences in collecting data on user behaivour — 100% / 22%

Competences in compiling user data (finding patterns) — 100% / 21%

Competences in applying knowledge about users to create new concepts — 100% / 43%

Competences in testing user reactions to new product concepts — 70% / 21%

Competences in multidisciplinary cooperation — 70% / 56%

Other competences — 60% / 37%

Concept design
Design company

Note: 10 observations for concept design companies and 72 observations for design companies.

Methods

Concept design companies use markedly different methods than the other design companies included in this study. In particular this applies to methods taken from market economics, the humanities, economics and business economics. (Figure 1.4)

The use of the three academic methods shows that concept design companies are more science-orientated compared to the traditional design companies.

The qualitative interviews show that the concept design companies use methods from economics, including market and business economics, to help them understand their clients' international competitive challenges and opportunities. The mapping of the industries' global competitiveness suggests that concept design companies work with a greater global perspective compared to traditional design companies.

Methods from the humanities and social sciences are used to gather information about user behaviour. Often ethnographical interviews and observations are employed to further understand the social and cultural values that users ascribe to the client's market.

Concept design companies make frequent use of intuitive methods, though to a lesser extent than do traditional design companies. Concept design companies typically begin a project with a hypothesis that may be more or less consciously employed to information generated through the course of the project with the aim of assessing whether or not at project is moving in the right direction. Read more about the working process of concept design companies on page 118.

The questionnaire asked:
"To what extent does your company use the following methods and tools?" The percentages indicate the share of companies that replied "to a large extent" or "to a very large extent".

Figure 1.4 Methods used in concept design companies and design companies

	Concept design	Design company
From design	60%	82%
From natural science	20%	18%
From market economics	90%	9%
From the humanities and social science (excluding economics)	100%	19%
From economics and market economics	70%	12%
Intuitive methods	60%	76%
Other methods	50%	31%

Concept design
Design company
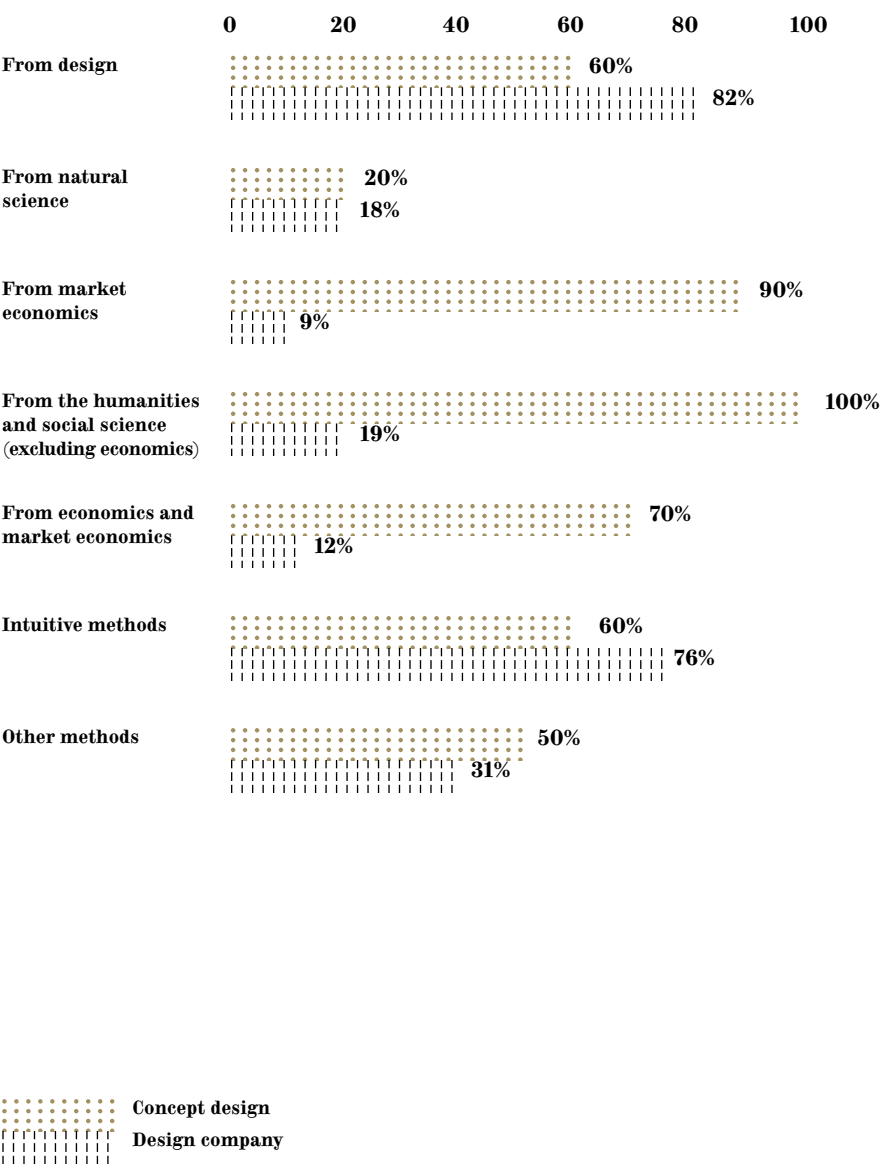
Note: 10 observations for concept design companies and 68 observations for design companies.

Client departments

Concept design companies also differ from design companies in terms of client entry-points. The client's strategy or innovation departments are the usual contact points for concept design companies. (Figure 1.5.)

90% of concept design companies maintain contact with the client's strategy or innovation department when selling a product or service. The concept design companies also maintain distinctly more contact to the client's R&D department and consumer insights department than do traditional design companies.

The reason for these differences appears to be that concept design companies often receive projects with a strategic dimension. The information that concept design companies work with or gather is often business-sensitive and requires frequent contact with client strategy or innovation departments. The qualitative interviews revealed that a concept design company often begins a project for the client's marketing department, but as insights grow and the potential for the new concepts are recognised by the client, the project will often find its way to the management level of the strategy and innovation departments.

Figure 1.5 Customer contact points for concept design companies and design companies

Strategy or innovation department
Concept design: 90%
Design company: 72%

Consumer insight
Concept design: 60%
Design company: 15%

R&D department
Concept design: 60%
Design company: 30%

Logistics and transport
Concept design: 10%
Design company: 4%

Product manufacturing
Concept design: 40%
Design company: 30%

Internal communications department and/or human resource department
Concept design: 50%
Design company: 55%

Design department
Concept design: 60%
Design company: 57%

Marketing department
Concept design: 70%
Design company: 93%

···· Concept design
╷╷╷╷ Design company

Note: 10 observations for concept design and 67 observations for the remaining group.

"One of the interesting things we discovered working with marketing and innovation is that quite often the relationship between research departments and marketing departments of an organisation can be disfunctional. Mainly because of their focus. Research development often needs more time and more funding and wants to make the results thorough. They also tend to be interested in the technology behind their particular discipline. Marketing teams are often focused on next quarterly results, immediacy and stories. So there's a tension between the two departments. One of the roles we often play between those two departments is a kind of United Nations. So we are obviously thoroughly interested in technology and the understanding that goes into a product. But as marketers, we also speak marketing and play the role of the garants who promote both parties so they understand the needs of each other while we extract the best from both worlds to deliver the result to the overall company."

Johnny Vulcan,
Anomaly, advertising and design firm, New York,
in conversation about this study

Client industries

Concept design companies work with many different types of clients. A markedly higher percentage share of concept design companies have clients within several industries than do design companies. (Figure 1.6)

The reason why concept design companies reach out to a wider client audience is because most concept design companies can provide their clients with solutions across industries.

Concept design companies also originate from a variety of business sectors, which may assist the companies in attracting clients within a wide range of industries.

Of the various industries and sectors with which the concept design companies maintain contact, 70% state that their primary clients come from within 'knowledge-heavy' industries such as the pharmaceutical industry and the public sector.

The qualitative interviews show that concept design companies are often tasked with solving complex projects within these 2 sectors. For example, these could be complicated tasks such as "what can a new enzyme technology be used for in order to create user-friendly products?" or "what does the future hold for kindergartens?" (see case on page 72).

A large share of concept design companies also work with companies in the area of business services. This could be accredited to the fact that concept design companies not only develop new products and services but also offer consultancy and in some cases assist in developing new business models.

The questionnaire asked:
"To which industries and sectors do your primary clients belong?" The percentages indicate the percentage of the companies stating the industries and sectors to which the company's primary clients belonged.

Figure 1.6 Client distribution for concept design companies and design companies

Industry	Concept design	Design company
Sub-suppliers	60%	40%
Suppliers to other design firms	20%	19%
Telecommunications industry	50%	18%
Private consaumers	0%	28%
Public sector	70%	54%
Furniture industry	20%	24%
Fashion industry	10%	19%
Pharmaceutical industry	70%	31%
Machine industry	30%	22%
Trade and transport	20%	21%
Business service	40%	37%
Consumer goods industry	40%	34%
Retail industry	50%	33%
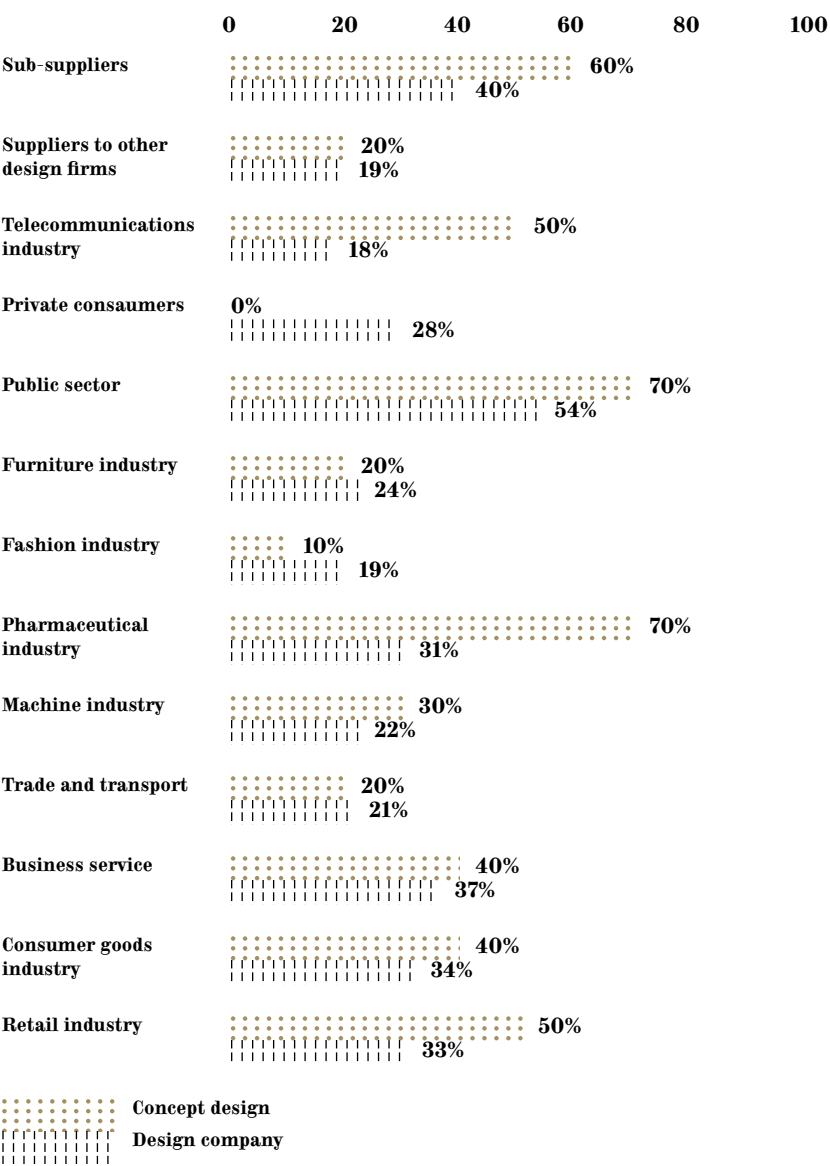
Note: 10 observations in concept design, 67 observations in the remaining group.

Characteristics of concept design companies

Based on the quantitative and qualitative studies and significant analytical freedom, a concept design company can be described based on 5 characteristics:

Global vision
Concept design companies maintain a global vision when it comes to determining their clients' markets and opportunities.

Science-based
Concept design companies base their methods on academic disciplines to understand user and market needs.

Using intuition to create unprecedented concepts
Concept design companies dare to apply their own intuition to increase the likelihood of creating amazing new concepts that the world has not yet seen.

Understanding the value of an insight
Concept design companies are conscious of the value that a previously uncovered user and/or market insight may create for the client.

Working on a strategic level
The concept design company work with the client's strategy and innovation departments and management to implement the concept within the client company.

The 5 characteristics listed above are interpretations of the replies submitted by the companies in their questionnaires coupled with the insights discussed during the qualitative interviews.

Typical work processes in a concept design company

Based on interviews with concept design companies in Denmark and abroad, the following phases were uncovered which are typically applied by concept design companies when attempting to solve a problem:

1. Hypothesis
2. Field work/Research
3. Pattern recognition and analysis
4. Concept development and design
5. Tests and implementation

1. Hypothesis

When concept design companies work on solving a problem, they base their work on a hypothesis that they attempt to validate or reject. A hypothesis that describes the problem "what are the greatest challenges faced by kindergartens of the future?" may be summed up in a sentence like: "parents need more information on what their children do in kindergarten". The concept design company often uses intuition when developing these hypotheses.

Whether a concept design company is faced with a concrete problem ("design a toothbrush") or an abstract problem ("what are the greatest challenges faced by kindergartens of the future?"), an intuitive hypothesis is typically advanced early in the project phase. The concept design company has often developed a wide range of hypotheses which are in the back of their minds when they go out and study users in phase 2 (Field work/Research).

In most cases, hypothesis development is performed by a project manager. Project managers come from a number of academic backgrounds, including social science, business, or design depending on the industry in which the concept design company is originally based.

2. Field work/Research

Phase 2 often runs along two parallel tracks: a) the concept design company studies user needs, and b) the concept design company collects the latest relevant information available concerning the issue at hand.

a) The concept design company studies the recognised and unrecognised needs of users in order to obtain a user insight that can help the company to understand which products and services carry value and relevance to the user. This can be accomplished by using qualitative interview techniques that prompt the users to reflect upon their immediate and recognised needs. Unrecognised needs can be uncovered by observation and studying behavioural patterns revealed on video recordings. Observation and video are used because people often will say one thing and do something else (cognitive dissonance).

The methods used in these studies originate in the academic disciplines of anthropology and ethnography. To find out more about user needs studies, see the report entitled "User-driven innovation – Results and recommendations" published by FORA in October 2005. See www.foranet.dk

b) The concept design company gathers the latest information available concerning the problem that they are working on. This is done in order to understand the project's opportunities. Areas that the concept design companies may wish to further investigate may include "research in hygiene and protein research" or "kindergartens and services". The concept designers gather and combine information – not just within the area under investigation, but also concerning a wide range of parallel areas such as technology, politics, the environment, materials or business models which may directly or indirectly be tied to the project. This is done to understand opportunities that can either be combined or which may provide inspiration thereby creating a unique concept. In this phase, concept designers can be described as "opportunity-hunters" investigating the opportunities embedded in a given project.

This track also uncovers international best-practice cases (such as newly introduced and successful kindergarten-service-schemes from various places around the world) – again with the intent of generating input and inspiration for the analysis and concept development stages. Commonly used methods include desk research, interviews with experts across a range of knowledge areas, subscriptions to leading international periodicals and magazines, and contact with knowledge institutions and research centres.

The field work/research stage is often performed by employees with academic backgrounds in ethnology, anthropology, sociology, psychology, business and marketing, or political science. However, the field work is generally performed by employees with a social science background, sometimes in cooperation with the designers.

3. Pattern recognition and analysis

When user insights have been gathered and research performed in the relevant knowledge areas, phase 3 – the anaysis phase – begins. The analysis phase is referred to by some concept design companies as "pattern recognition". By pattern recognition the companies

refer to the intersection between two knowledge areas (e.g. where knowledge of a new technology intersects with knowledge of a new user need) in which a new pattern – or product – emerges. Pattern recognition combines insights from an array of knowledge areas in creating a new solution and a new way of telling the solution's story.

This phase is often referred to as the one where "the magic happens". The phase is often characterised by the structuring and systemisation of often chaotic and fragmented user and market knowledge into new insights and patterns. For a kindergarten project, this pattern could be "parental interest in hearing about a child's experiences" combined with "mobile solutions" and "stress occurring during drop-off and pick-up". At the same time, quotes of particular interest pulled from user interviews or cases particularly relevant to the project's main objective are also gathered.

The main purpose of this stage is to structure the collected information in themes that may kick off the concept development phase, but typically this phase also generates the first tentative ideas for new solutions as well.

Usually the work of the pattern recognition and analysis phases is performed by the same employees who conducted the research and field work. The project manager also has an important role to play during this stage as it is he or she who must ensure that the analysis is directed towards finding a solution to the client's original problem.

4. Concept development and design
Concept design is the phase in which the collected knowledge and analysis from phase 3 is used to develop concrete solutions to the client's original problem. At this stage in the process, a great deal of knowledge on the client's problem has been gathered . This knowledge deals with the client's market possibilities, the client's product users and new, global trends within the client's home industry. A range of ideas are now in the pipeline, awaiting formulation, discussion and illustration. These ideas are developed and discussed in the concept development stage.

Clients are often involved in the discussion phase and are invited to participate in workshops. This is a forum where the client can put forth suggestions on how they believe the gathered information can be used to shape new concepts. Client's are brought in because the story behind the concept proposals are to be presented. This is often carried out by presenting the new insights and patterns revealed in the research and analysis phase. This can also inspire the client, who may suggest new types of concepts that may solve the client's original problem.

The concept proposals can be presented in a number of ways, and include outcomes such as:

Power-points
Reports
Posters (which illustrate insights or new strategies)
Videos (which summarise insights, often by showing clips from user interviews)
Renderings (3D graphics or products, landscapes etc.)
Prototypes (models of new products)

Concept development and the creation of prototypes are generally performed by the same employees that were responsible for conducting the research and analysis stage in cooperation with the designers.

5. Tests and Implementation
If the concepts are approved by the client, the product(s) or service(s) must be tested, developed and launched. It is during this phase that the concept is tested and realised. Tests are often performed with the help of focus groups in which a number of people (usually not more than 10) are presented with the concept, generally in the form of a prototype, and are asked to comment on the prototype. As the concept has already been developed on the basis of user studies, this stage rarely leads to radical changes in the product or service, but rather minor adjustments to the concept or prototype.

Implementation of the final product or service requires a detailed assessment of its production, which is typically led by the client's design and production department and, in some instances, in cooperation with the concept design company.

It is also during this phase that the marketing, packaging and visual identity are discussed and designed. This can be carried out by the client, by a marketing agency or by the concept design company itself. Whether the concept design company is involved during this stage depends on the type of concept design company concerned (see page 163).

Typically involved actors at this phase include those with backgrounds in industrial design, graphic design, civil engineering and marketing.

When this phase is completed, the product or service is ready to be launched and the process is complete.

Finding:

Gravity Tank's work process

Gravity Tank is a creative consulting firm that helps clients to uncover new opportunities for innovation potential using tools including qualitative consumer research and market research.

The Gravity Tank work process includes a thorough investigation of the client's new business possibilities. The entire process is described in the Gravity Tank capabilities brochure. http://www.gravitytank.com/GT_Capabilities.pdf
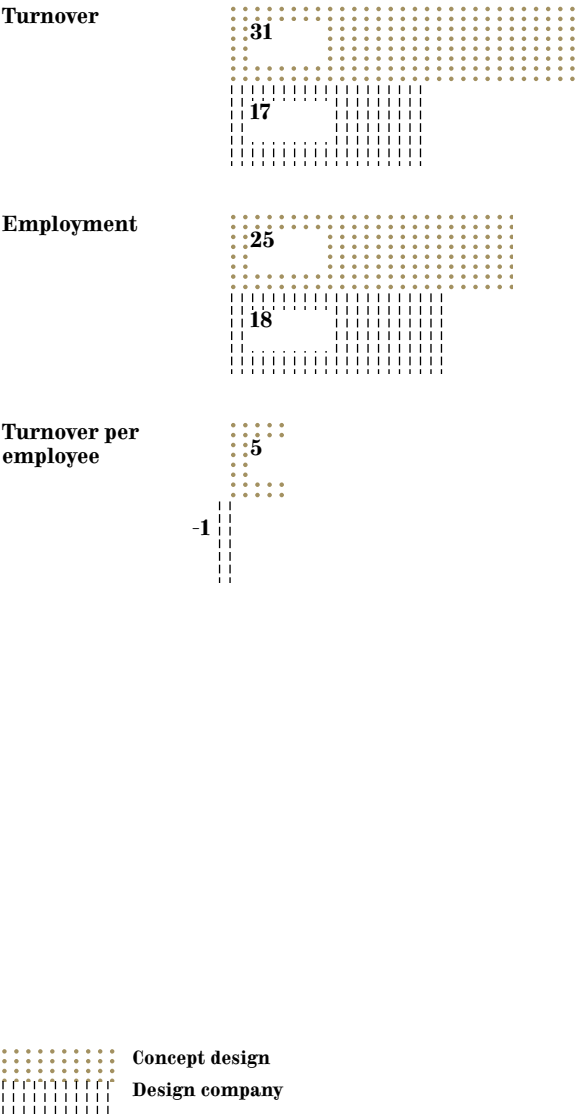
2.3 Is concept design good business?

As with other industries such as management consultancy and planning engineers, the design industry has benefited from the booming Danish economy and has enjoyed extremely positive economic development in recent years; an average yearly increase in turnover of 10% has been a common occurrence for companies in the industry.

The 10 Danish concept design companies working with concept design on a high professional level have collectively achieved excellent economic results.

The average annual increase in turnover for the 10 concept design companies has been approx. 14% higher than what was achieved by design companies during the period from 2002 to 2006, and employment has risen approx. 7% more per year in the same period. This is a clear difference; whether it is significant from a statistical standpoint is less clear, as the available data is relatively limited (see working document available at www.foranet.dk).

Concept design companies have seen minor progress in terms of turnover per employee, whereas turnover per employee has remained unchanged for the design companies∎

Figure 1.7 The average yearly growth rate in percentages for turnover, employment and turnover per employee for the period 2002–2006

Turnover: 31 (Concept design), 17 (Design company)

Employment: 25 (Concept design), 18 (Design company)

Turnover per employee: 5 (Concept design), -1 (Design company)

Concept design
Design company

Note: Concept design companies (n=5) and others (n=43). Includes only companies in existence for the entire period (2002–2006)

The Danish design industry

The Danish design industry is currently undergoing rapid development. From 1999 to 2004 turnover increased from DKK 1.8 billion to DKK 2.9 billion and employment rose from 1 904 to 2 970 employees. Design companies also became more international. Income from international clients rose from 15% of annual turnover in 1995 to 24% in 2004, and a few Danish companies have established international branches.

During the same period the number of companies grew from 2 300 to 3 800. According to StatBank Denmark a design company must have either six months of full-time work or a turnover of DKK 135 000 each year to be registered as an active business. In 2004 there were in general just as many inactive as active design companies, that is, approximately 2 000 inactive design companies.

The design industry has always been populated by a myriad of very small companies, and this has become even more noticeable in the past 5 years while the number of larger companies has declined in the same period. In 2000 there were 189 companies employing more than 10 people, while in 2006 there were 110 companies employing more than 10 people.

Denmark has never been home to very large design companies. In 2006 there were actually no companies employing more than 100 people. This is not a particularly Danish phenomenon; there are indeed very few design companies worldwide that employ hundreds of people.

The significant growth enjoyed by the design industry is not unique in comparison with other industries providing similar services to businesses. Consulting engineers and management consultants have also seen rapid development. This is of course tied to the strong Danish economic growth in recent years. Along with the significant progress witnessed in the traditional consulting companies, there is a renewed tendency towards business sector break-up and gliding.

For a more in-depth analysis of the Danish design industry, see the Danish Enterprise and Construction Authority report entitled "Et billede af dansk design – udfordringer og perspektiver" (A View of Danish Design – Challenges and Perspectives) (2007).

3.0
Concept design
around the world

Contains key chapters:

3.1 Who is doing concept design around the world?
3.2 Where are the biggest concept design hubs in the world?
3.3 Where have concept design companies opened branches?
3.4 Who is really doing concept design around the world?

3.1 Who is doing concept design around the world?

As a starting point, we have used the same method to collect international data which was used when collecting the Danish data. However, collecting data for all the design companies in the world has not been possible. Therefore, the international segment of this study concentrates on concept design companies.

Based on desk research, a literature review and contact with international experts, a number of geographical areas in the United States and Europe have been selected as being interesting "hubs" to concept design companies.

A 'snowball' was launched in the selected regions, workshops were held, and leading concept design companies as well as international experts were interviewed.

Close to 160 concept design companies were identified.

The study attempts to assess the competences and methods of each concept design company using the same approach that was employed in the Danish segment of the study.

The companies were encouraged to respond to the same questionnaire that was used in the Danish study, but unfortunately the response rate was not equally satisfactory in all regions examined.

Using the questionnaire, the interviews, conversations with regional experts and information from company websites, an attempt was made to find the concept design companies with the resources to work with concept design on a high professional level, just as in the Danish part of the study.

This exercise identifies 111 concept design companies which together with the 10 Danish companies, possess the resources necessary to work with concept design on a high professional level (see also background report available at www.foranet.dk) ∎
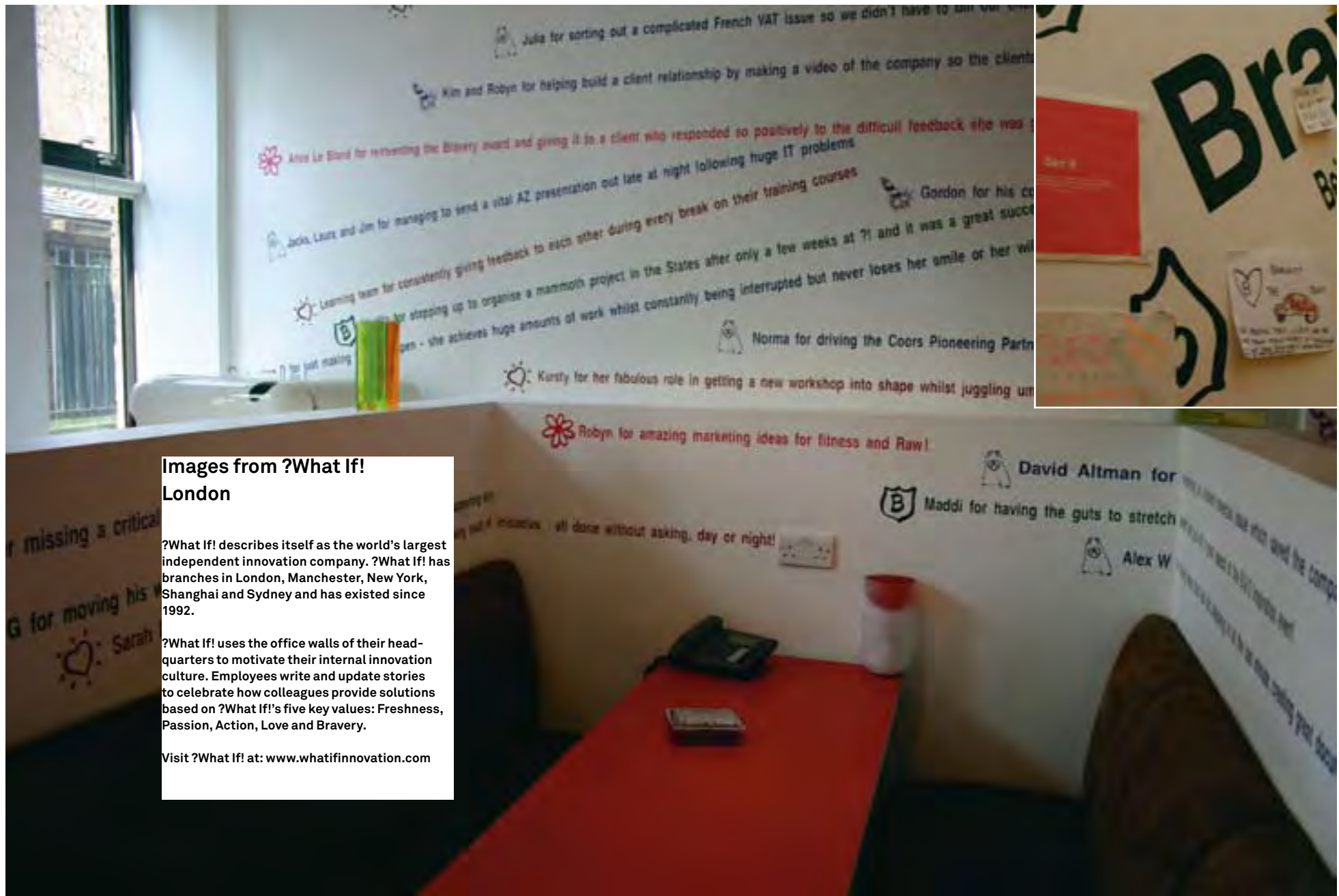
Images from ?What If! London

?What If! describes itself as the world's largest independent innovation company. ?What If! has branches in London, Manchester, New York, Shanghai and Sydney and has existed since 1992.

?What If! uses the office walls of their headquarters to motivate their internal innovation culture. Employees write and update stories to celebrate how colleagues provide solutions based on ?What If!'s five key values: Freshness, Passion, Action, Love and Bravery.

Visit ?What If! at: www.whatifinnovation.com

"The physicality of the outcome doesn't matter. What matters is how you best can engage with the idea you've come up with."

Sal Pajwani,
**CEO, WhatIf, London,
in conversation about this study**

How to map concept design companies around the world

Using desk research, literature reviews and interviews, 7 areas were designated as particularly interesting regions with regard to concept design.

In each of the 7 areas experts and knowledge people were contacted and asked about their knowledge of concept design companies in their own and other regions. They were also asked if they could direct the study to other experts and knowledge people. Based on the information they provided, a snowball was launched in each of the 7 regions – see background report for more information on the snowball method.

The snowball was satisfactorily or somewhat satisfactorily rolled out in Holland, San Francisco and London. The mapping was not adequate in the remaining regions, and therefore this was supplemented with visits to the regions in question. (Boston was not visited, but design experts from Boston participated in a workshop held in New York).

In all, 36 concept design companies and 18 experts were interviewed about their knowledge of concept design companies located both inside and outside of their own regions.

Using the snowball method and interviews almost 160 companies were identified, of which 18 were located outside of the 7 regions where the study had begun. All of the companies were asked to complete a questionnaire identical

In all, 36 concept design companies and 18 experts were interviewed about their knowledge of concept design companies located both inside and outside of their own regions.

to the one forwarded to companies in Denmark. A total of 30 of these companies submitted their completed questionnaires. The remaining identified companies were either assessed on the basis of interviews with the companies themselves, interviews with experts or through desk research and review of company websites.

In all, 111 of the international companies were identified as companies working with concept design on a high professional level, and are therefore comparable to the 10 leading Danish concept design companies.

3.2 Where are the biggest concept design hubs in the world?

The international mapping process confirms that a number of regions claim a relatively high concentration of concept design companies, but the process also reveals significant differences across the regions.

2 regions have such a great concentration of concept design companies that the regions can be termed as global hubs for concept design. These two regions are San Francisco with 30 concept design companies and the New York area with 24 concept design companies.

The London region follows closely with 17 concept design companies.

After London, there are 6 regions with approximately a dozen concept design areas each: Chicago, Denmark, Boston, Los Angeles and Munich-Stuttgart-Nuremberg. In the Netherlands we have identified 4 concept design companies (see map on page 140–141).

Outside of the 9 regions with a certain level of concentration of concept design companies, 15 concept design companies were identified: 2 in Paris, 3 in Milan, 2 in Toronto, 1 in Barcelona, 1 in Zurich, 1 in Stockholm and 5 across the United States.
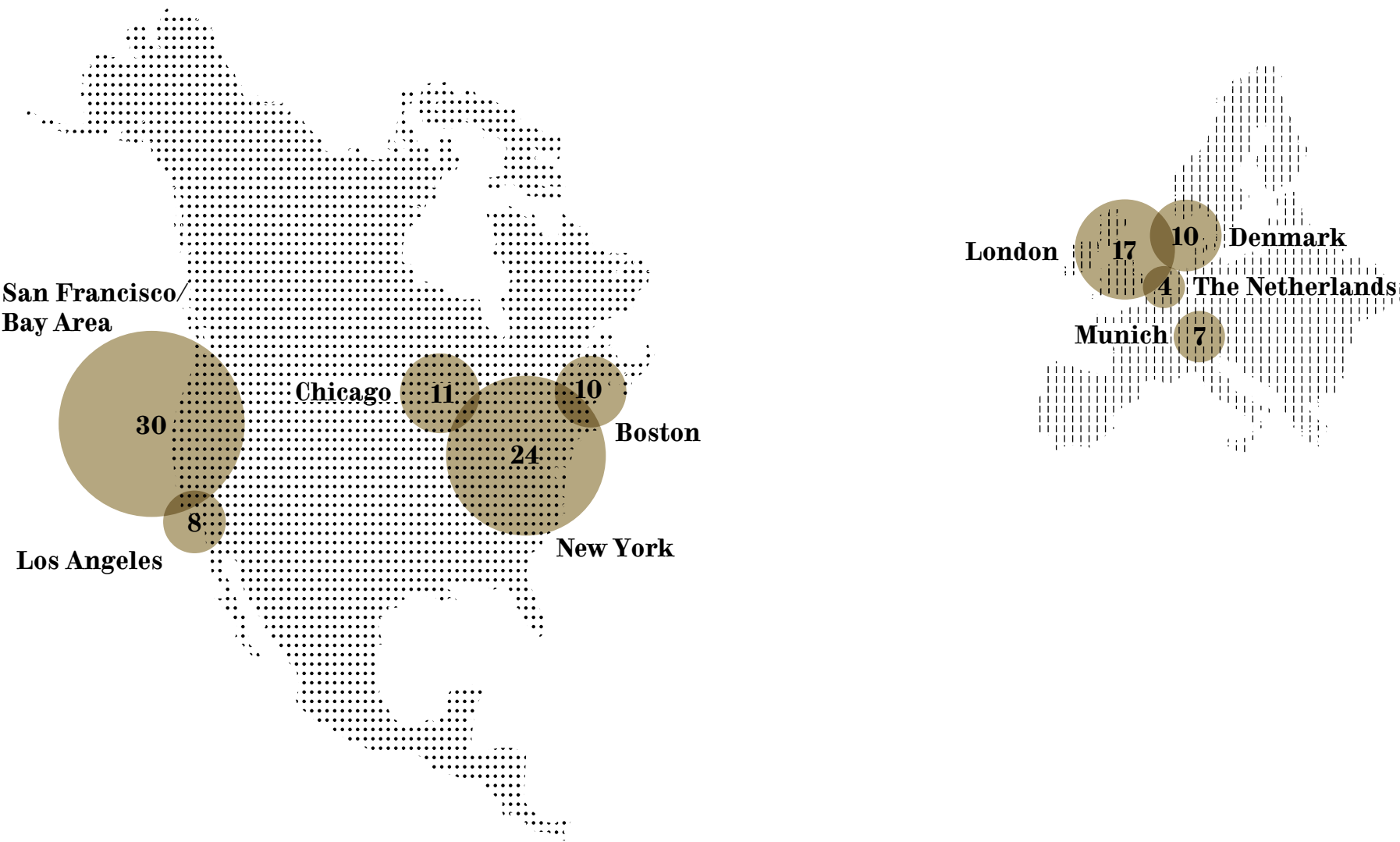
A few concept design companies were identified in Asia, but all were branches of US or European concept design companies. This is why the analysis concentrates on the US and European concept design companies.

The study only includes independent concept design companies. Of these, former in-house concept design departments that in recent years have begun working as independent consultant companies are included as in the case of Phillips Design.

There is of course no guarantee that all concept design companies have been identified. However, it is assessed that the most important and largest of the concept design companies have been identified as a result of the large number of experts and concept design companies which participates in the study.∎

3.2 | where are the biggest concept design hubs in the world?   **138**

139   3.2 | where are the biggest concept design hubs in the world?

Figure 1.8 The number of concept design companies found in each concept design hub

San Francisco/
Bay Area

30

Chicago

11

10

Boston

24

New York

8

Los Angeles

London

17

10

Denmark

4

The Netherlands

Munich

7

3.3 Where have concept design companies opened branches?

The large concept design companies often have several branches. A normal pattern appears to be that a concept design company is born in one of the leading regions such as San Francisco or New York. When the company grows to employ 70 – 80 staff members, a branch is opened in the region where most of the new clients are found, or where the company perceives the existence of interesting client potential.

Of the 121 concept design companies included in the study, 29 have branches while the largest companies have 5 or more branches.

In the United States, San Francisco and New York have produced the greatest number of concept design companies. San Francisco has 21 concept design companies that originated in the region and 9 branches from other regions. New York is home to 13 concept design companies from the region and 11 branches from other regions.

In Europe, Denmark and the London area are the regions that have produced the most concept design companies. In Denmark, all 10 concept design companies originated in the region and there are no foreign branches in Denmark.

This may have something to do with the relatively high number of concept design companies in Denmark, but the explanation is more likely that there are not yet that many interesting Danish clients in concept design. Therefore, the foreign concept design companies have not yet found it financially attractive to locate within Denmark.

London hosts 10 concept design companies that originated in the region, and 7 that are branches from concept design companies headquartered in other regions.

In the Netherlands, all 4 concept design companies originated in the region, but the 7 concept design companies in the Munich-Stuttgart-Nuremberg area are all branches of concept design companies from other regions – from San Francisco in particular, but also one company from Denmark.∎
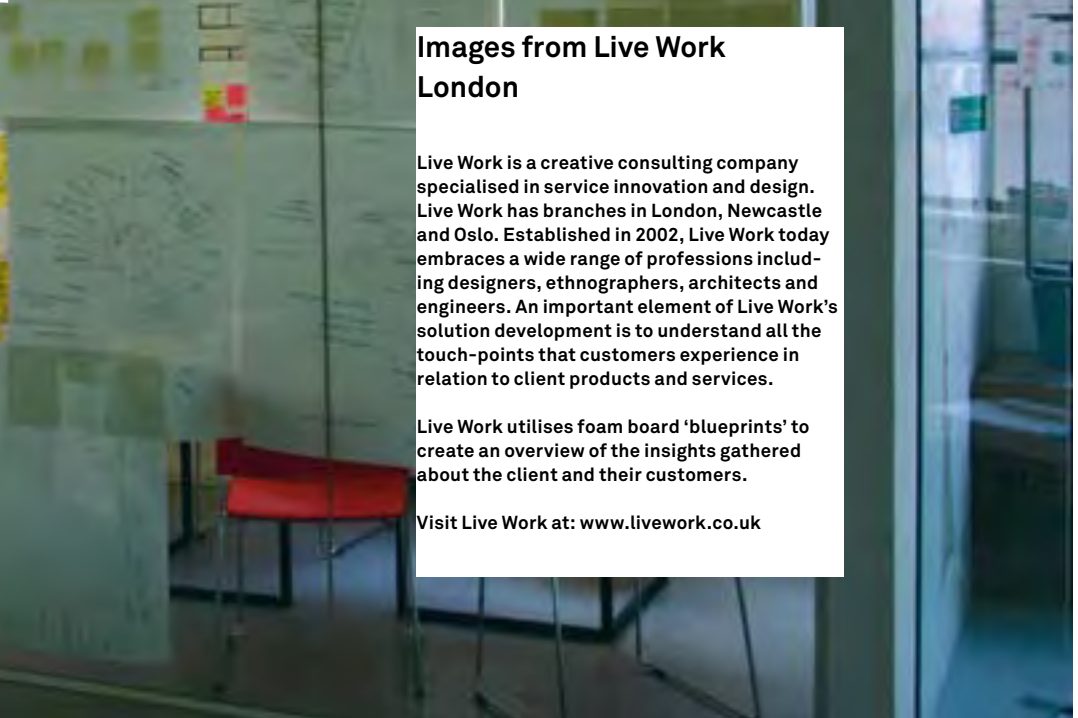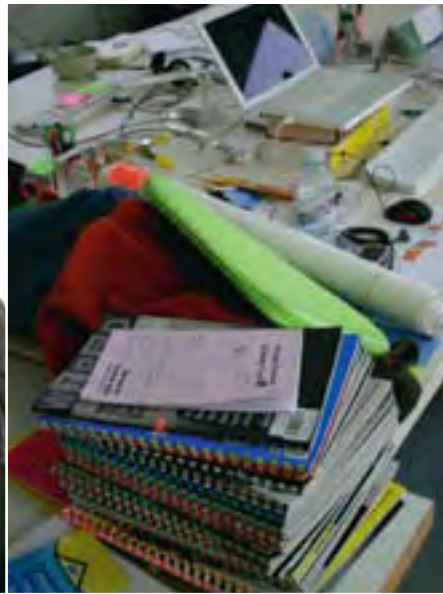
Images from Live Work London

Live Work is a creative consulting company specialised in service innovation and design. Live Work has branches in London, Newcastle and Oslo. Established in 2002, Live Work today embraces a wide range of professions including designers, ethnographers, architects and engineers. An important element of Live Work's solution development is to understand all the touch-points that customers experience in relation to client products and services.

Live Work utilises foam board 'blueprints' to create an overview of the insights gathered about the client and their customers.

Visit Live Work at: www.livework.co.uk

3.4 Who is really doing concept design around the world?

It has not been possible to assess concept design companies based directly on their output. How good are the concepts that they create? What value do they hold for the client, and what do they mean to the end users?

Instead, as described in the Danish section a score system was developed providing an indication of the companies' qualifications for working with concept design on a high professional level.

Information used included the competences mastered by the concept design companies, the methods they use, their partnerships with clients and their network relations.

Of course, only companies that responded to the questionnaire were assigned a score.

The top-10 list is dominated by US companies (Table 1.4).

The Top-10 list should be treated with some reservation as relatively few companies responded to the questionnaire in the international section of the survey.

Among the companies that did not respond, but which were considered of particular interest to the study, interviews were conducted that made it possible to assess the companies' abilities to work with concept design.

On that basis it was considered that 5 concept design companies that did not respond to the questionnaire would have scored at the same level as those in the Top-10. Of these companies, 2 are located in New York, 2 in San Francisco and 1 in the Netherlands.

Table 1.4 Ranking of located concept design companies by point score

Top 10 companies	Region	Point score
1	New York	50
2	New York	49
3	New York	49
4	Munich	49
5	London	48
6	New York	47
7	Denmark	46
8	Denmark	46
9	San Francisco	45
10	Denmark	45

Note: Companies participating in the study are invited to contact FORA to receive their individual score and ranking.

Among the Top-10 companies we find small, medium-sized and large concept design companies.

It is assumed that the companies must be of a certain size in order to work with concept design. The majority of the companies designated by international experts employed 40 or more people.

Of the 121 concept design companies participating in the study, 41 indicated that they employ more than 40 people (Table 1.5).

Of the 121 concept design companies participating in the study, 18 did not disclose the number of employees, but of those 5 are believed to have more than 40 employees. Therefore, approximately 45 companies were identified as having more than 40 employees.

Of those 45 companies only a few companies employ more than 100 people. And among the slightly larger concept design companies there is a widespread notion that 70-80 is the optimal employee number. This number provides the company with the potential to solve the more demanding concept projects, while at the same time allowing the company to maintain its uniqueness.

The capability to solve complex concept problems does not appear to be contingent upon company size. Concept design is a very special offering that requires high levels of professional ability, but it also requires intuition and thus very person specific competences. There are a lot of smaller companies solving complex concept design challenges for some of the world's largest companies. Of the 3 companies that were assigned the highest score, there are 2 companies employing just 10 – 20 employees each∎

Table 1.5 Number of located concept design companies with more than 40 employees

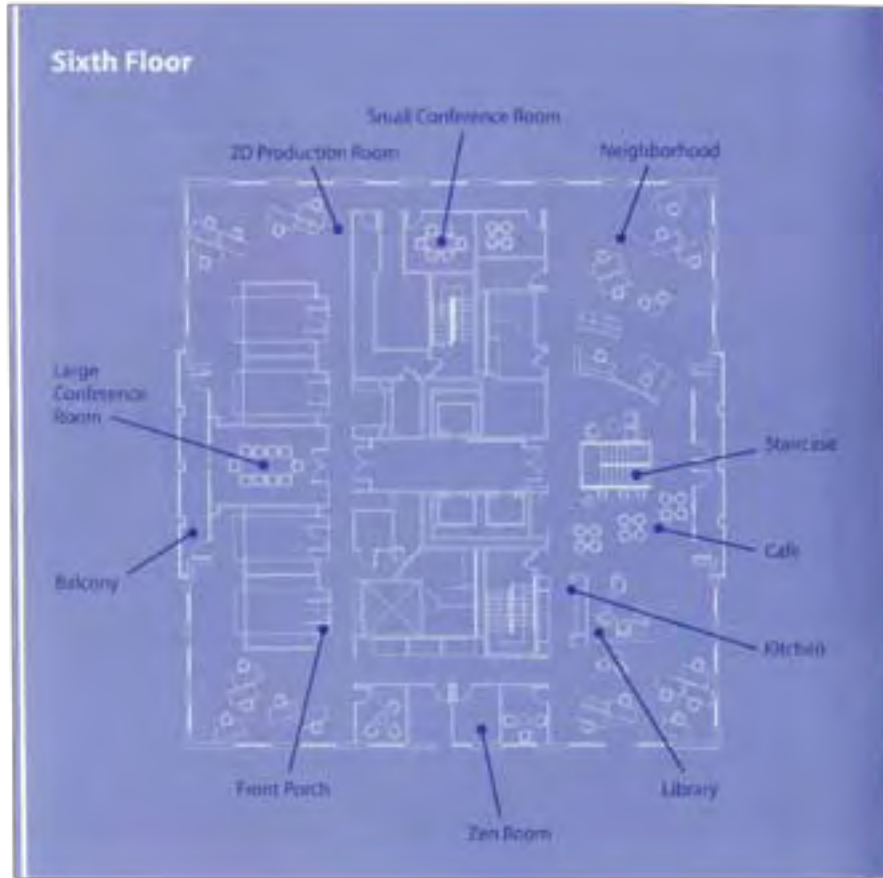| Region	Number of companies
New York	9
San Francisco	8
London	8
Boston	4
Denmark	4
Netherlands	4
Chicago	2
München/ Stuttgart / Nürnberg	2
Total	**40**

Images from Gravity Tank Chicago

Gravity Tank is a creative consulting firm that helps clients to uncover new possibilities based on qualitative methods and design thinking. After revealling these posibilities Gravity Tank usually develops prototypes of the new products for the client.

On the fourth floor of an office building in downtown Chicago, Gravity Tank has built a workshop where prototypes of ideas and concepts can be produced quickly. Clients rarely see this workshop, but often spend time working in the room beside it where clients together with Gravity Tank's multi-disciplinary business and design experts discuss new product suggestions and the new business models that accompany them.

Visit Gravity Tank at www.gravitytank.com

Finding:
Jump Associates floor plan

Sixth Floor

2D Production Room
Small Conference Room
Neighborhood
Large Conference Room
Balcony
Staircase
Café
Kitchen
Front Porch
Zen Room
Library

Fifth Floor

3D Production Room
Enclave
Project Rooms
Performance Space
Café
Outdoor Patio
Neighborhood

Jump Associates is an innovation company based in San Mateo outside San Francisco, USA. They use methods that are a hybrid of social research, product design and business strategy to create compelling new offerings and discovering new opportunities for growth for their clients.

Jump Associates knows that it takes motivation and energy to solve some of their clients' most complex problems. They strive to use the physical environment at Jump to foster learning and innovation – both for employees and clients – by setting up special rooms such as the "Zen" library and small, intense project spaces. The most popular space at Jump is the "Traincar Cafe", which is built to resemble an American diner.

According to internal policy, tables can't be reserved in the Traincar Café – not even for client meetings. This is in order to promote relaxed, impromptu meetings and informal encounters reminiscent of the atmosphere found in real cafés. "Since good ideas often arise in cafés, we decided to bring that atmosphere to the workplace at Jump," explains Alonzo Canada, partner at Jump Associates.

Jump Associates' architecture and interior design was explored in a recent Business Week article. Follow this link to view the slideshow and listen to the accompanying interview on Jump's architecture and interior design: http://images.businessweek.com/ss/06/07/jump/index_01.htm. Remember to turn up the volume so you can hear the interview.

Nest Home Lab

New York City
est. 2005

•

Employees: 6
Professional tradition: Ethnography, anthropology

Case:
What do living rooms mean to American families?

Nest Home Lab is a concept design company that was founded 2 years ago by 3 partners. The company uses ethnographic studies to help their clients improve everyday home life. Nest Home Lab now employs 6 staff members.

Despite the limited staff, Nest Home Lab often takes on larger projects for large sized companies such as Hewlett-Packard and Motorola. Nest Home Lab is capable of handling larger clients and project because the company can quickly recruit new staff on a project basis using its network. The network used by Nest Home Lab includes other small research companies across the United States and Europe as well as leading design colleges such as Parsons New School for Design in New York. Nest Home Lab commits network people on an ad hoc basis depending on the size of the project. For example, 13 people worked on Nest Home Lab's latest project.

One example of the kind of work performed by Nest Home Lab is a project that was carried out for a large computer manufacturer, which was experiencing problems selling its printers to private customers and therefore wanted insight into what living rooms mean to American families.

The project encompassed personal interviews and a limited number of observation studies performed in private homes. The result of the work conducted by Nest Home Lab was a number of recommendations on how the company's engineers could develop more user-friendly functions for the printer, e.g. the way the printer connects to other electronic equipment in the home. The suggestions later became an important element in the computer manufacturer's sales strategy targeting private customers.

4.0
Insights

Contains the key chapters:

4.1 The Cube – A model for concept design

4.2 Strategies for concept design companies

4.3 Combining concept design competences

**4.4 Concept design: Future challenges and opportunities**

4.5 The move forward

4.1 The cube – A model for concept design

Figure 1.8

In connection with the analysis of concept design companies a model was developed to describe the processes in concept design.

Concept design work is abstract, strategic and multidisciplinary in contrast to the entirely traditional design solution which is often concrete, non-strategic and non-multidisciplinary. Therefore there are 3 dimensions to the model:

Abstract – Concrete
Strategic – Non-strategic
Multidisciplinary – Non-multidisciplinary

Abstract

Non-strategic

Multidiciplinary

Non-multidiciplinary

Strategic

Concrete
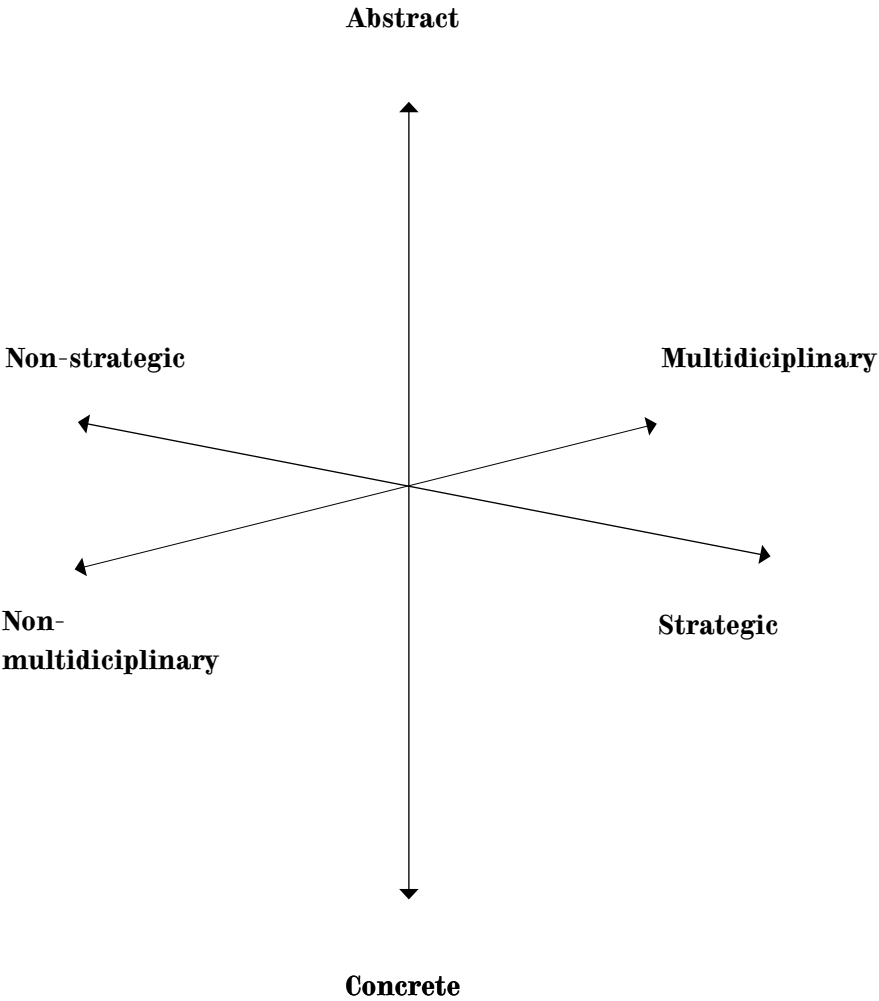
Note: This model is developed by FORA and inspired by Richard Grefé, Executive Director for American Institute of Graphic Arts (AIGA), an industry organisation for design in the United States.
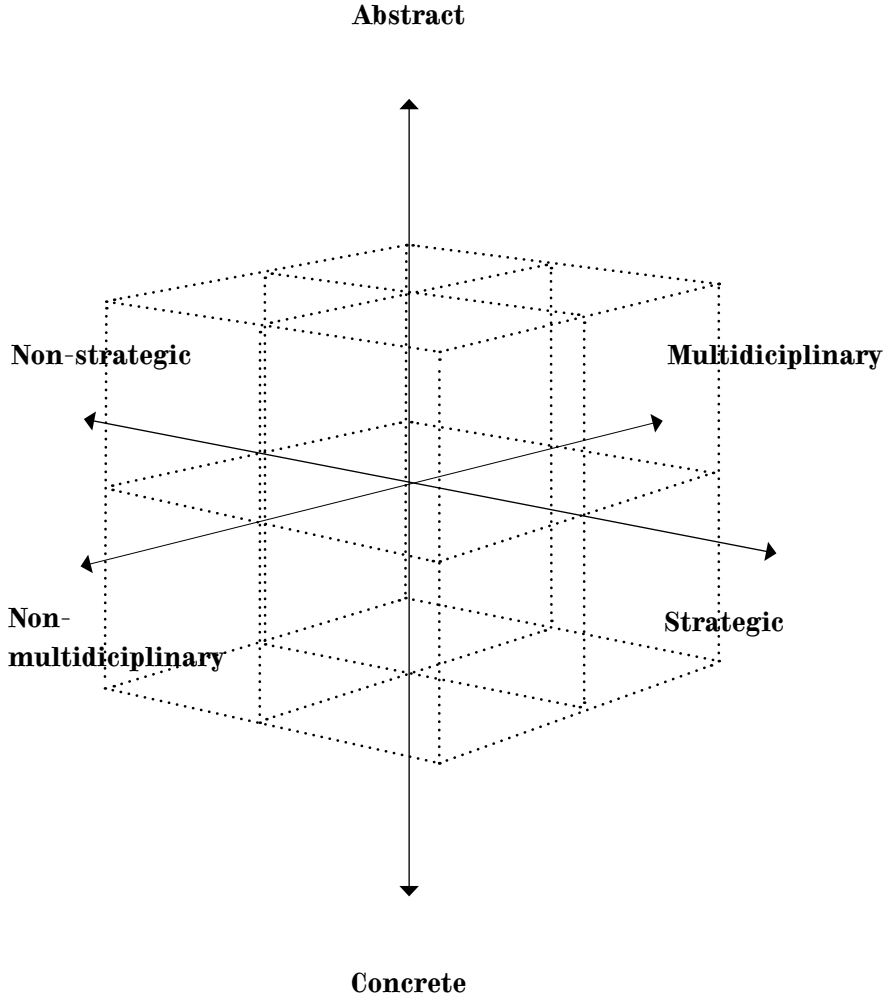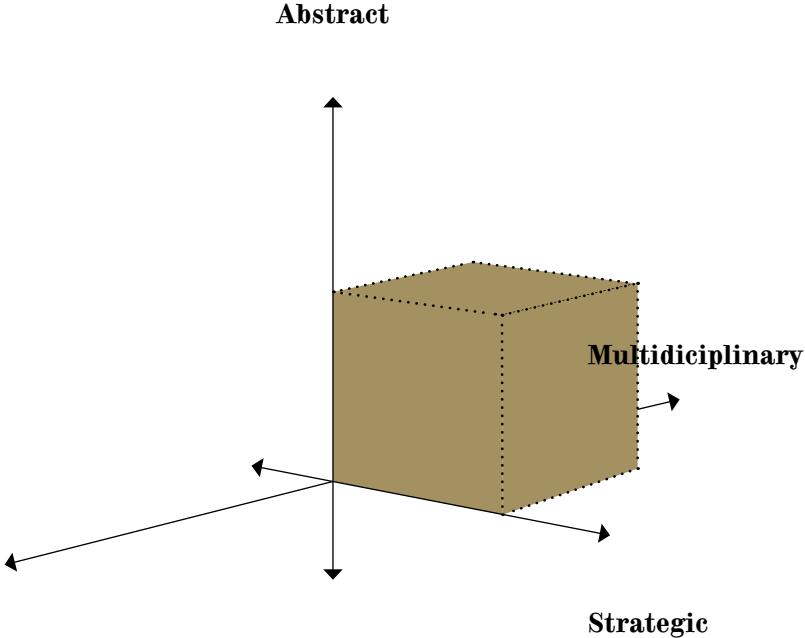
Figure 1.9

Figure 1.10 Where concept design happens

Abstract

Non-strategic

Multidiciplinary

Non-multidiciplinary

Strategic

Concrete

Abstract

Multidiciplinary

Strategic

The model consists of 8 cubes.

In the back north-easterly section of the model, the process is abstract, strategic and multidisciplinary, and in the front south-westerly section, the process is concrete, non-strategic and non-multidisciplinary.

Concept design takes place in the back north-easterly section, and a concrete design solution is created in the front south-westerly section.

Figure 1.11

Abstract

Non-strategic

Multidiciplinary

Non-
multidiciplinary

Strategic

Concrete
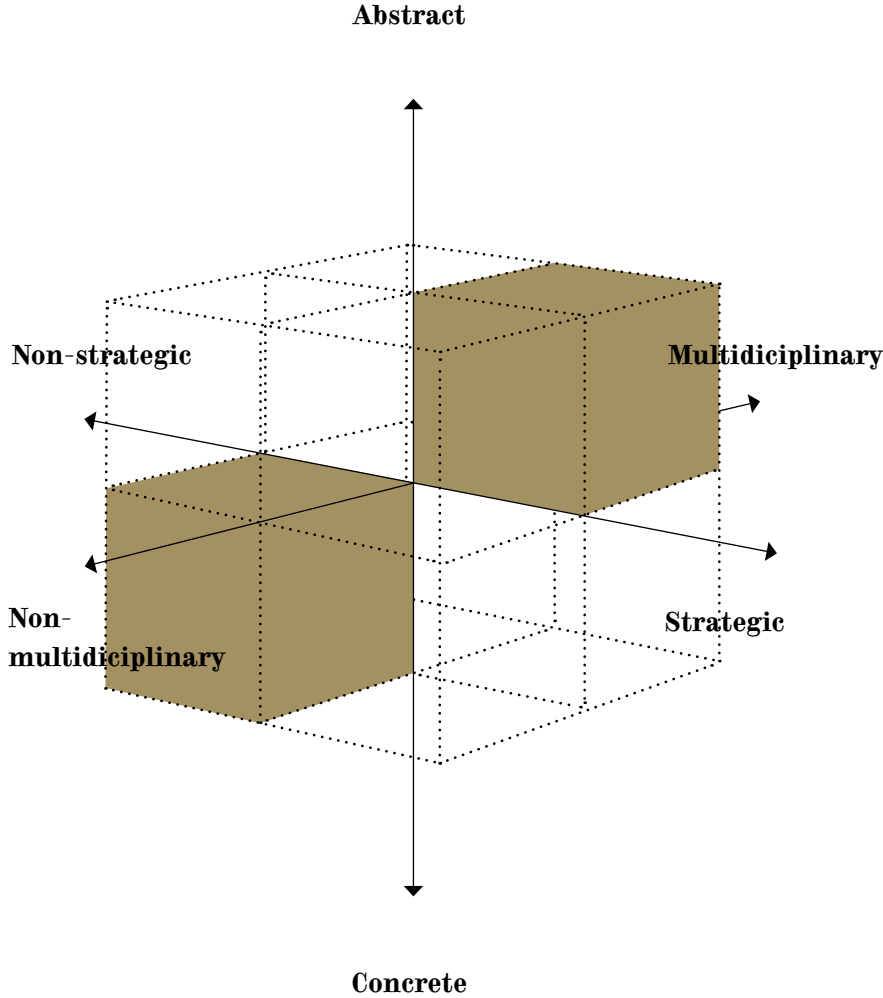
In the top right-hand back corner of the model we find a very broad approach to problems solving. What should the company work with in the future, and how can it meet future societal and cultural challenges of which one can only see a glimpse of today? In other words a very abstract approach to a problem. The work is also strategic as it must always relate itself to the company's business strategy. And the work is multidisciplinary in that it requires at least 3 competences: business, social science and design.

In the lower left-hand corner of the model, we find a narrower approach to a problem. How should a product or service be designed? This is a very concrete problem and it is not necessary to take into account the company's business strategy, nor to work in a multidisciplinary manner. This may have happened earlier in the process, or perhaps the task was simply concretely defined from the beginning without employing particularly strategic considerations, which is not necessarily problematic.

A process that begins with the formation of a new concept and which ends with the development of one or more concrete solutions can be said to run through the entire model, ranging from the upper right-hand corner at the back of the model to the lower left-hand corner at the front of the cube.

It is important to emphasise that not all design should use concept design as a starting point. There will always be a need for concrete design work that does not require abstract and strategic considerations, but which are simple and straightforward. But concept design will undoubtedly become a still more important element of company innovation in future.■

Based on the concept design model, 3 concept design company archetypes can be established, each based on its own business strategy type:

- The holistic concept design company
- The design-expert concept design company
- The strategic concept design company

For *the holistic concept design company* it is crucial to work across the entire model ranging from top right-hand corner to lower left-hand corner.

If the client has not articulated the project in a way that is both abstract and strategic, the holistic concept design company will initiate a dialogue with the client in order to launch the process at a sufficiently abstract and strategic level. If this is not successful, the holistic concept design company will often leave the project as it will not find that the problem can be satisfactorily solved without abstract strategic considerations.

It is important for the holistic concept design company to have both the competences to work in a multidisciplinary way with abstract and strategic problems and the competences to work with concrete design solutions. In this way the company ensures that the process is organised in a coordinated chain that provides the best possible forward transfer of knowledge throughout the entire process.

The figure illustrates that the holistic concept design company works both with broad approaches in the back, right-hand cube and concrete design solutions in the front, left-hand cube.

Figure 1.12 Focus for the holistic concept design company.
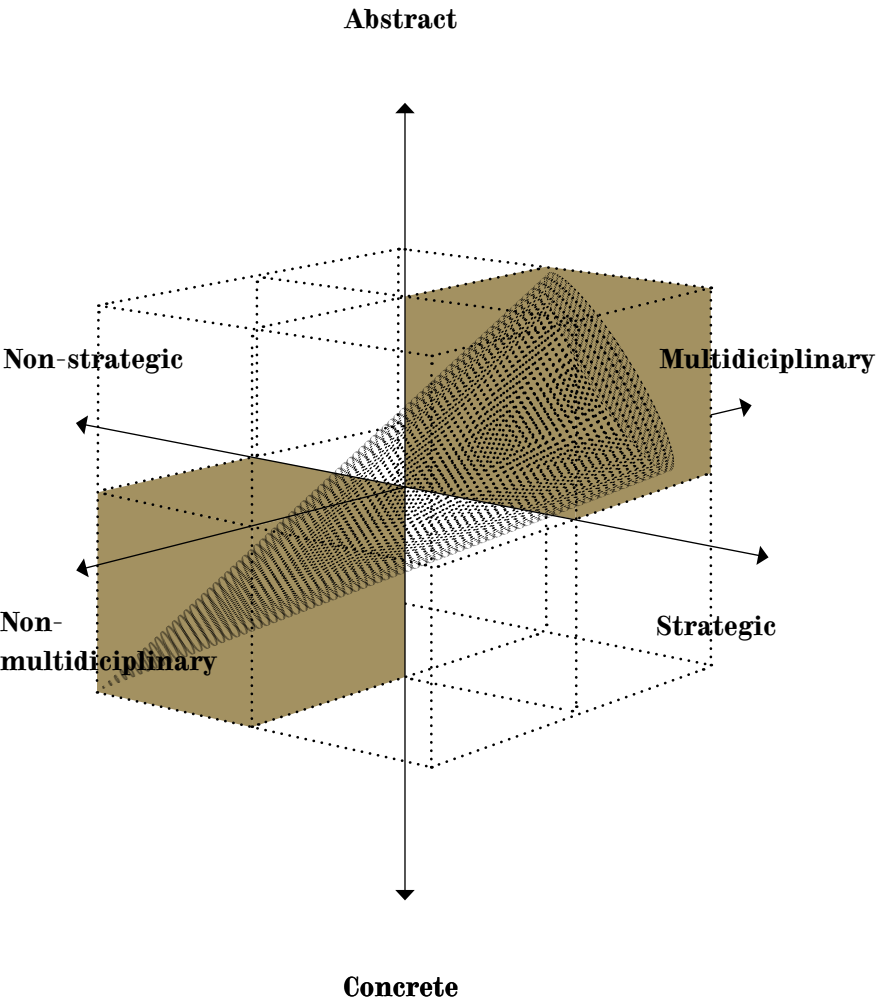
The design-expert concept design company focuses on solving traditional design challenges on a very high level, but when it is deemed relevant, the design-expert concept design company will also make the client aware of the opportunities inherent in concept design.

It is therefore important for the design-expert concept design company to maintain and develop its design core competences that can brand the company apart from other design companies, while also combining the design core competences with the necessary concept design competences.

The figure illustrates that the design-expert concept design company's point of departure is the concrete design solution, which is then elevated to a more abstract, strategic and multidisciplinary level in the front left-hand cube.

The strategic concept design company emphasises concept design and does not necessarily possess the competences to work with concrete design solutions. In most cases, the strategic concept design company leaves it to others to create concrete design solutions, instead concentrating on the development of new concept solutions.

The strategic concept design company either prefers or exclusively work with the most abstract and strategic projects at the top of the model sphere, and it is therefore important for the strategic concept design company to maintain strong competences in concept creation.

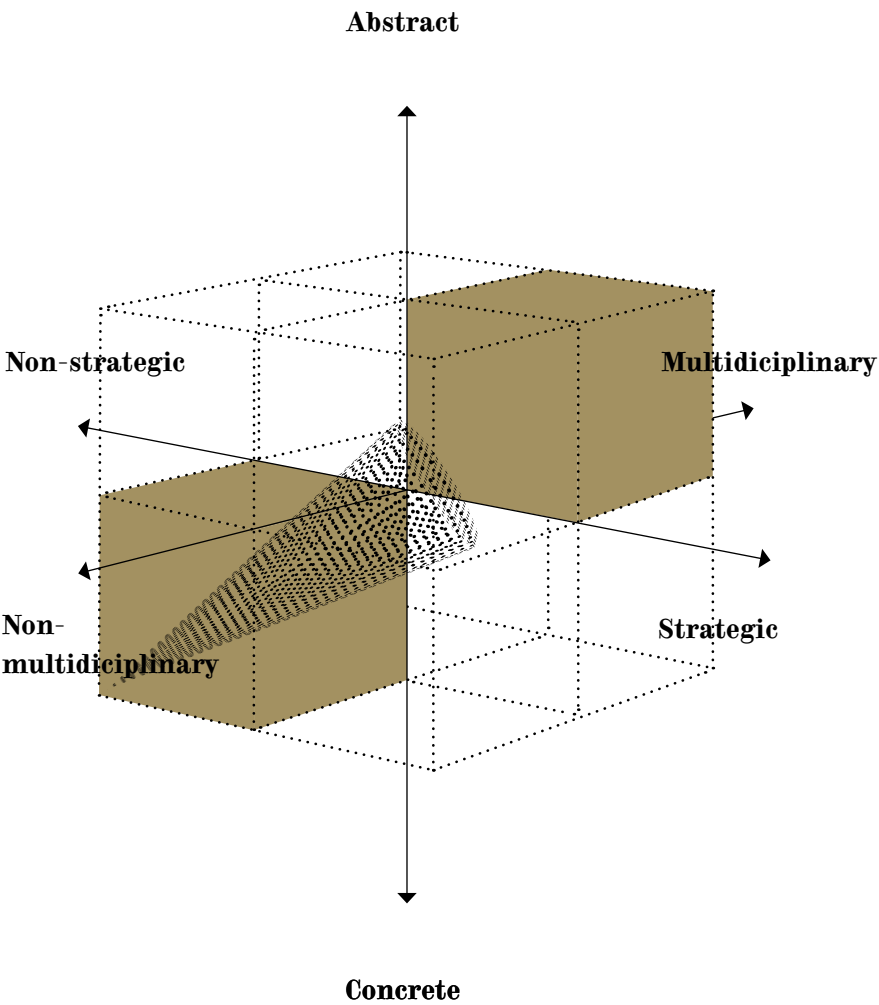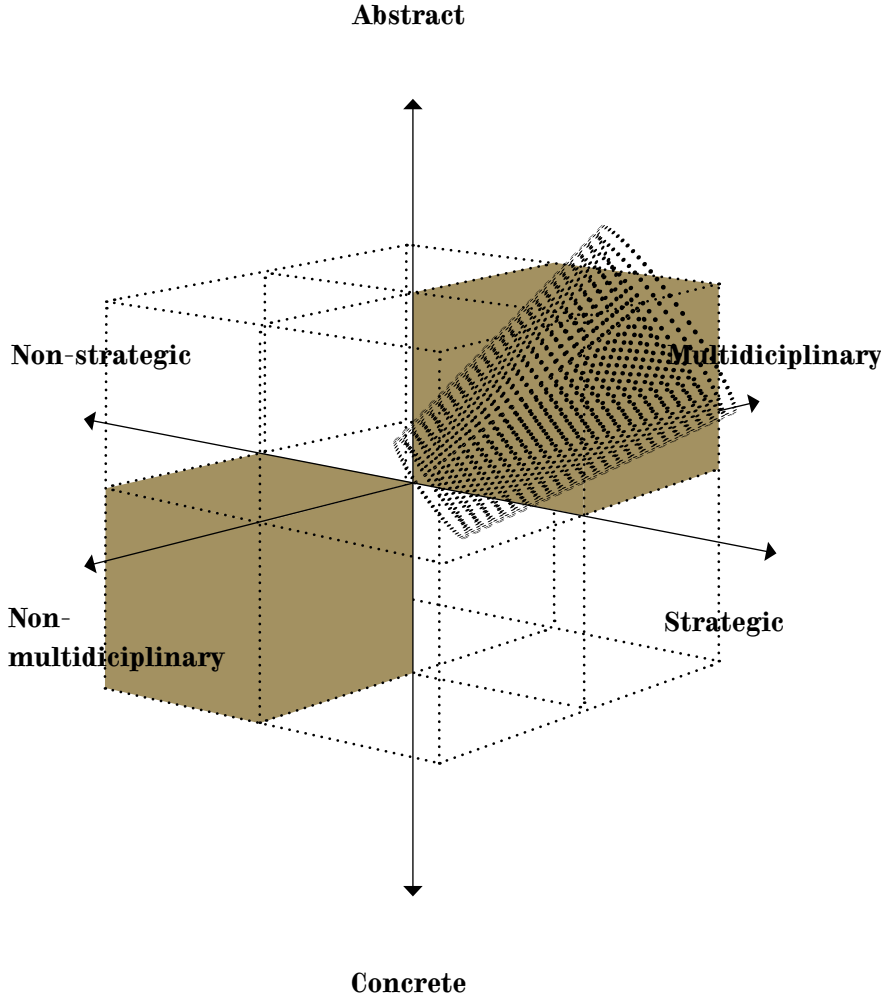Figure 1.13 Focus for the design-expert concept design company.

Figure 1.14 Focus for the strategic concept design company.

The figure illustrates that the strategic concept design company focuses solely on solving the broad problems located in the back, right-hand cube.

None of the archetypes can be said to be more preferred than others in the sense that the solutions are better, or that the concept design company thereby achieves a more favourable financial result. On the contrary, there is plenty of room for all 3 types of concept design companies as well as various combinations thereof. Each type of company has its own special merits in relation to the specific needs of the client or the character of the project.

It is, however, recommended that concept design companies adopt a conscious approach to their own business strategy, and establish the right balance between business model, competences, methods, and the projects undertaken by the company.

Cheskin

San Francisco | hq.
est. 1961

•

Number of employees: 100
Professional tradition: Market research

Case:
What is the difference between girls and boys?

Cheskin is an innovation research firm offering "research-based innovation-consultancy". The needs of the end user are always central to Cheskin's work in finding solutions to client problems. Cheskin starts off by obtaining an understanding of the user's experience of the problem under consideration. Cheskin's work often results in principles intended to guide the design of the solution. The company's primary offering is user research and description of the experience demanded by the user. Cheskin does not submit a prototype or sketches of new concepts; instead they use reports or figures that describe the design principles necessary to design the most user-friendly experience for the client's customers.

If the client wishes to continue working with the proposed design principles with Cheskin acting as facilitator, Cheskin begins collaborating with design companies to develop prototypes of the concrete product. "We are interested in facilitating the designers' creativity and inspiring it with our understanding of consumers", explains Steve Diller, partner and manager of Cheskin's Experience Design Studio.

An example of Cheskin's work method can be seen in an analysis undertaken for a client within the IT sector in the San Francisco/Bay Area. The client wanted to know why girls do not play computer games. With this open brief as a starting point, Cheskin set their anthropologists, psychologists and business educated people to work to determine a unique insight that would later guide the entire product development process. Cheskin developed a number of design principles, one of which was: "Make the game actively distasteful to boys so that they won't take it from their sisters." This and other principles guided the client to discover what sort of game should be designed. The process ended in the creation of a game called "Purple Moon" (boys hate the colour purple, according to Cheskin's research), which would go on to become the second-highest selling game in the following Christmas season in the United States.
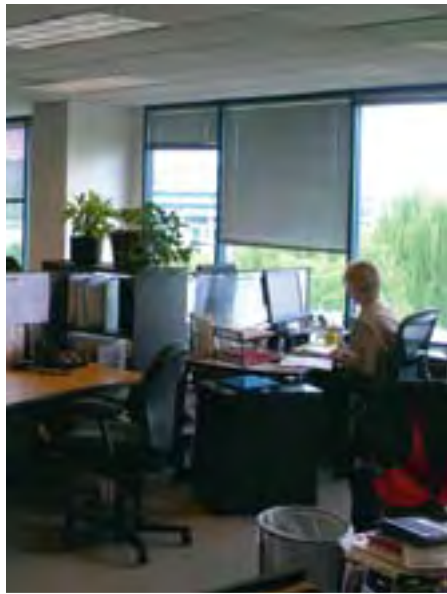
Finding
Visual presentations by Cheskin
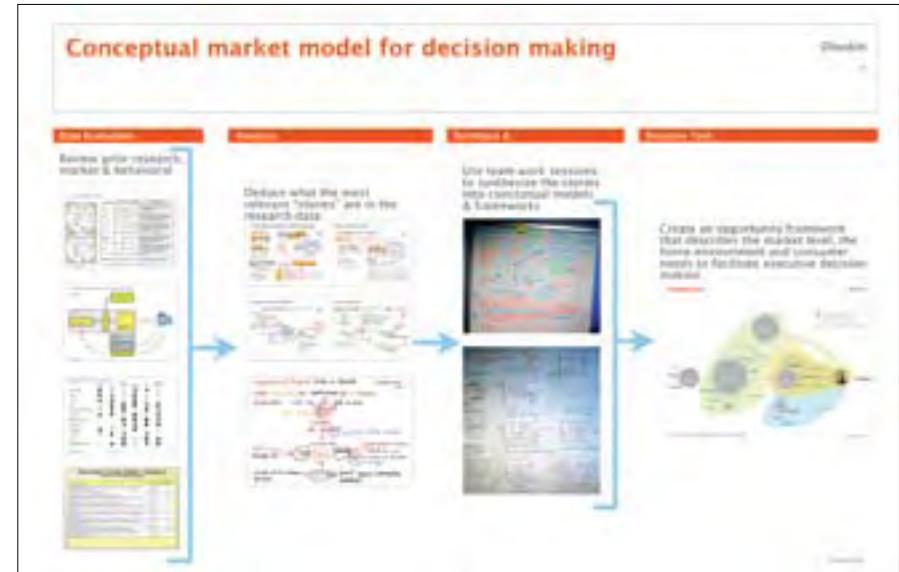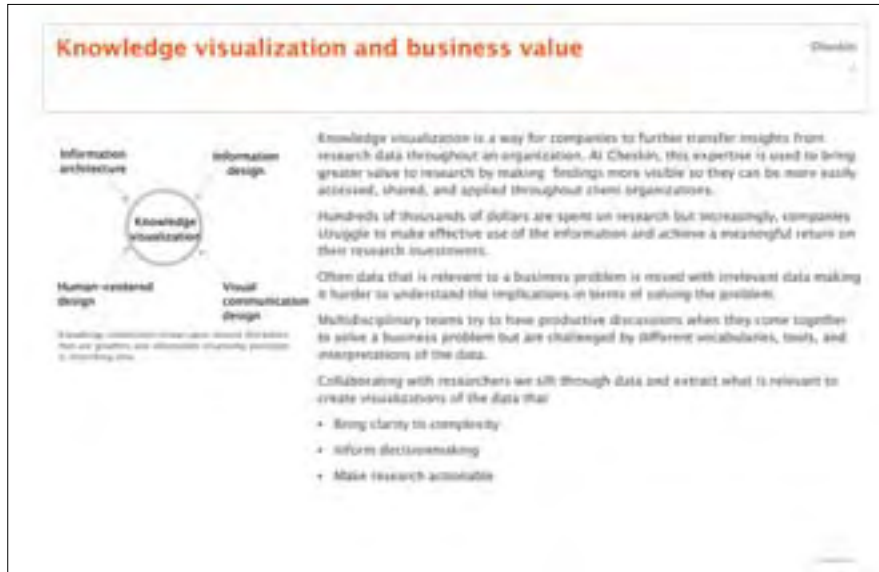
Cheskin is an innovation research firm that guides innovation through a deep understanding of people, culture and change and which uses various forms of visualisation modelling in presenting research to clients. Here are some examples.
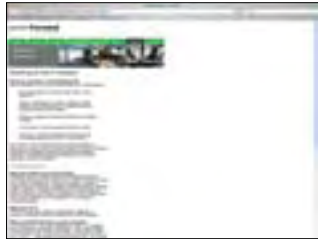
Finding
Job postings: Whatif / Point Forward / Gravity Tank

*http://www.whatifinnovation.com/Recruitment_region_role_
detail/region---3776/role---3778*

Excerpts from WhatIf job posting:
"**What do our Capability Consultants actually do?**
They help our clients innovate. They help organisations develop and sustain a culture of innovation. They do this by working with our clients to shape their vision, people, processes, support structures and leadership."

http://www.pointforward.com/careers_main.html

Excerpts from Point Forward job posting:
"**We are interested in you if you can demonstrate a mix of the following:**
- Prior work experience at Conifer, Doblin, Elab, Jump, or similar firm
- Training in anthropology, sociology, qualitative market research,
  other social sciences or humanities and have conducted qualitative field research.
- Training or experience in product development, technology, or design.
- A commitment to making a practical impact on clients.
- You thrive on crossing disciplinary boundaries and are comfortable adapting your
  training to new problems."

www.gravitytank.dk/CT_Analyst.pdf

Excerpts from Gravity Tank job posting:
"**Change the world, one succesful innovation at a time...**
Analysts combine solid business acumen with innovative design thinking to identify research insights and frame relevant strategic opportunities that move clients' business forward. These flexible thinkers come from diverse backgrounds like design, strategy, marketing and anthropology."

Concept design companies often seek out employees who can offer a combination of disciplines. Here are some examples of job postings from some of the concept design companies visited in connection with the study.

Prospect

London
est. 2006

●

Number of employees: 5
Professional tradition: Strategic design, graphic design

Case:
What can work places do to motivate employees to focus on a healthy lifestyle?

Prospect is a small strategic design company located in London that collaborates with a range of different partners to solve various types of problems for their clients. Prospect's business model is built upon a close partnership with other kinds of research and design companies, which means that in collaboration with others they can take on more complex projects than traditional design and branding projects. "We don't see competitors but possible collaborators", explains Prospect's Strategic Director, Richard Eisermann.

Prospect was tasked with improving employee health in UK workplaces. Earlier campaigns had failed, and according to Prospect only 15 percent of the NGO and governmental initiatives were successful within UK workplaces. The client commissioning the project, Oxford Health Alliance (OXHA), was in need of new perspectives on the problem.

Many of the illnesses people suffer from in the Western world are lifestyle illnesses such as diabetes and cancer, and these are linked to inadequate diet and lack of exercise. According to OXHA, 69 percent of the British adult population does not live up to the recommended level of physical activity. Prospect contacted their network of research companies and knowledge institutions to gain more understanding of the problem and to generate an idea of how to solve it.

Prospect involved many different collaborators for the workplace health project, including anthropologists, health experts and exercise trainers. Together they discovered that people reacted negatively towards campaigns and initiatives that focused on guilt feelings. Instead, Prospect and its collaborating research companies determined that it was necessary to develop new concepts that appeal to people's motivation and interest in exercising and healthy eating in the workplace. They discovered that people are more committed to health in the workplace if they can see the personal

value in it. Based on this insight, Prospect designed an array of new tools for the British workplaces, one of which was called "Health Futures", which helps people choose their own desired state of health. And because the employees themselves are doing the choosing when it comes to their own health futures, more employees are sticking with it. The tools were well received by OXHA and are set to be implemented at a number of different UK workplaces.

Prospect, London

Prospect, London
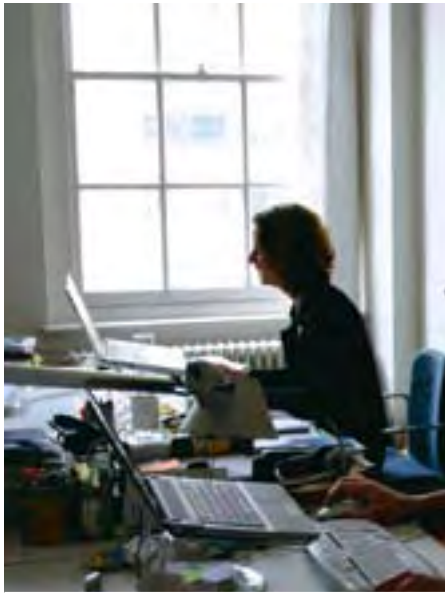
4.3 Combining concept design competences

Concept creation is by necessity a multidisciplinary discipline, and requires a minimum of 3 different competences: business, social science and design.

In cases where the project deals with developing entirely new technologies or creating complex combinations of existing technologies, more technical competences may prove necessary. But it is our assessment that most concept design projects focus on creating new and better solutions from existing technologies and knowledge, and that this is achieved through use of the three competences – business, social science and design.

Business competences

There are several reasons why business competences are important to concept creation. Concept design deals with creating concepts that is in line with the client's business strategy or – if the concepts fall outside the client's business strategy –concepts that require a reassessment of the business strategy. Business competences are also important because the interpretation of market trends and assessment of market potential often are an important source of inspiration to concept creation.

Social science competences

Social science competences are important because the understanding of social and cultural trends generally is an integrated part of concept design. Observations and assessments of user behaviour are a vital part of concept creation. This applies not least to the uncovering of non-recognised user needs and the subsequent use of observations (pattern recognition), where social science competences along with more intuitive methods are often very central.

Design competences

Design competences are important because concept creation is about moving from abstract and theoretical perceptions to concrete solutions that provide exactly the function or experience driven by the theoretical considerations. And it is precisely the transition from theoretical considerations to practical concepts that can be converted to concrete solutions that is an important part of the design competence.

The ability to visualise, which is an integral part of the design competence, can also promote the dialogue on the more abstract problems, and in this way the design competence serves as an important binding agent in the multidisciplinary process.

Access to competences

The study showed that in general there are 3 different approaches taken by concept design companies to ensure access to the competences that they require.

The most widespread method to date is to employ a staff that cover all three competences, and which can therefore form interdisciplinary project teams that together possess the competences necessary to work with the concrete concept design task.

Another method which appears to be growing in scope is built on partnerships with other companies. A concept design company may focus on one or two competences and will then collaborate with other companies to cover the remaining competences. Partnerships are either created on a project basis or companies may enter into more formal and long-term partnership agreements.

"As opposed to management consulting firms we use the tools of design to make ideas come to life."

Dinesh Goburdhun,
Senior Team lead, Gravity Tank,
creative consultancy firm, Chicago,
in conversation about this study

The last approach to ensuring access to necessary competences is rather unusual and has only been observed in one of the concept design companies in this study. In the company in question, each employee possesses all three necessary competences. However, it can be difficult to find employees with such a broad scope, and therefore it is often necessary for the company to train its own staff. This is relatively expensive, but the resulting benefit is more balanced and better functioning project teams.

In-house concept design departments
The study included a few in-house concept design departments in large multinational companies. The purpose was to investigate whether there were any differences in how in-house departments work compared to the independent concept design companies.

As the study was conducted with limited resources, it was not possible to involve a large number of in-house departments in the study. It was also difficult to find multinational companies willing to participate in the study. However, 6 in-house concept design departments belonging to multinational companies did participate and provided us with valuable information on the way they work.

In-house departments visited in connection with the study:
- Electrolux, Stockholm
- Arup Engineering and Design, London
- LEGO, Billund
- BBDO, New York
- Motorola, Chicago

Other companies visited included Philips Design, Eindhoven and BMW DesignWorksUSA, Munich, but as both units also work as independent concept design companies, they were included in the concept design company segment of the study.

The conclusion from the study of in-house concept design departments is that they work with concept design in a manner similar to the independent concept design companies. This is by no means a surprising conclusion, but the fact that many large multinational companies have sophisticated in-house concept design departments serves to support the hypothesis that concept design is an industry currently undergoing strong progress.

An interesting new phenomenon in recent years is the emergence of several in-house design departments as independent entities, as well as the fact that several multinational companies are contemplating doing so. The companies' own development departments want to use both in-house departments and independent concept design companies to achieve as much new inspiration as possible, and the in-house department wants to retain the independence to gain new inspiration and to develop as a result of working with a variety of client projects■

Philips design

Eindhoven | hq.
est. 1925

•

Employees: approx. 450 (in Philips Design)
Professional tradition: Industrial design, engineering

Case:
What can hospitals do to improve children's experience during hospialisation?

Philips Design is Philips' design department and employs approximately 450 people. The core purpose of Philips Design is to create novel products and services that are founded on consumer requirements. In order to recognise emerging user requirements Philips Design is a multidisciplinary environment comprised of anthropologists, designers, sociologists, engineers and business professionals.

Philips Design initiated a project to develop new concepts for improving hospitals in the belief that it was possible to improve the institution of "hospital" in a range of areas. On that basis a broad collaborative effort was launched covering multiple Philips departments, including light and audio. Medical experts and patients were involved in the process and were asked to convey their thoughts on future health services. Philips Design facilitated the process and the development of product propositions.

One of the concepts dealt with how to minimise the anxiety children may experience when being admitted to a hospital. For example, a CT scan may be an overwhelming ordeal for most children. In Philips' Ambient Experience for Healthcare the child is shown into a room full of toys and dolls and a miniature copy of the CT scanner. The child will be asked about his or her favourite toy. Children select a stuffed toy, place it on a miniature exam table and slide it into the scanner. An animation of the stuffed elephant appears on a screen and the animated elephant explains the whole scanning process. The concept will save time and resources for the clinicians and the hospital.

The Kitten Scan was only one of many concepts developed by Philips to improve hospitals. The hospital concepts have been pooled under the name 'Ambient Experience for Healthcare' and have been sold to Lutheran General Hospital in Chicago, Laughlin Memorial Hospital in Tennessee and Catharina Hospital in Eindhoven, among others.

BBDO

New York City | hq.
est. 1928

•

Employees: 600 (globally)
Professional tradition: Advertising

Case:
What can be done to improve the Christmas shopping experience?

The venerable advertising agency BBDO (Batten, Barton, Durstine & Osborn) has established a department at its New York headquarters with the purpose of identifying user needs for BBDO's clients using of ethnographic studies.

The main purpose of the department is to provide answers to complex questions for BBDO's clients. The department is led by Tim Malefyt, anthropologist and design professor at the Parsons The New School for Design. Tim Malefyt explains that BBDO has experienced a great deal of interest in the department's offerings. The department has grown in just a short time from a few employees to around 20.

Recently the department completed a project for one of the largest retail chains in the United States that wanted input on how it could boost its Christmas sales. The client had experienced that their use of advertising didn't increase in-store retail sales. BBDO's ethnographers conducted a study that involved observation studies of the retail chain's customers as well as personal interviews with the company's own clients and employees.

One of the findings was that the retail chain's customers perceived Christmas shopping as a kind of ritual act that differed from the shopping done during the rest of the year.

On the basis of this insight it was recommended that a segment of the chain's Christmas sales should take place in a specially defined and decorated sales area that supported the ritual atmosphere of Christmas.

Finding
Arup's "Drivers of Change" cards
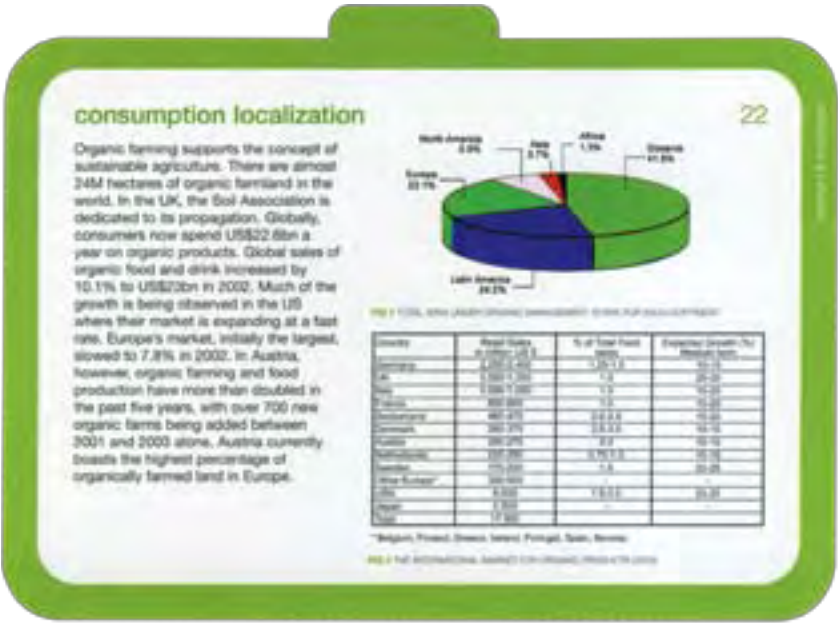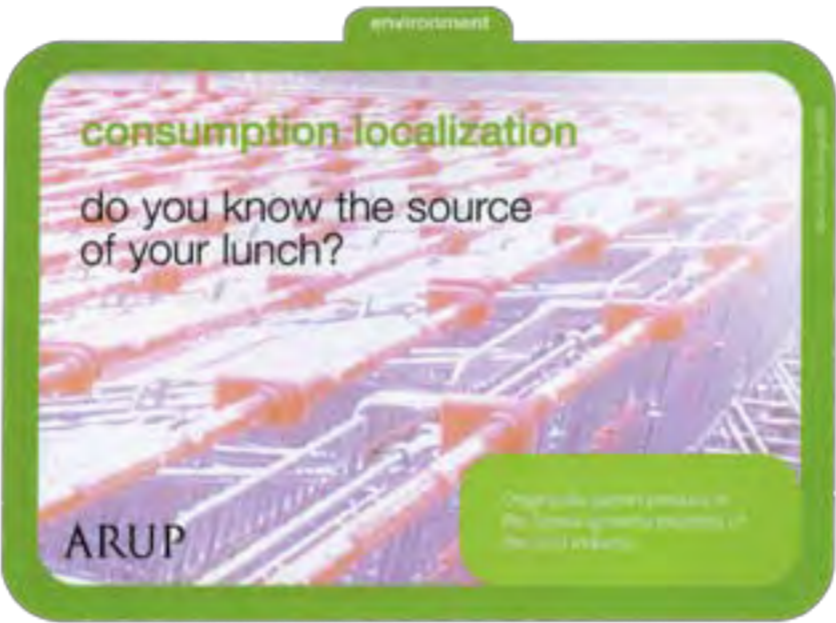
Arup is a global engineering and design firm. Every year, their Foresight & Innovation team issues a set of cards entitled "Drivers of Change", which illustrate emerging challenges and trends. The cards are set to inspire Arup's clients to acknowledge the more abstract and complex challenges and opportunities of our time.

Finding

Arup's "Drivers of Change" cards

4.4 Concept design: Future challenges and opportunities

Working systematically with concept creation and concept design as an important strategic element in a company's innovation process is a new phenomenon. It has emerged alongside, and as a result of, the increasing global competition on innovation.

Previously, innovation was often considered to be the same as research and development of new technologies and new products. The ongoing efforts of renewing and adapting products to customers and markets and the development of various service offerings were not regarded as innovation per se, but more as an important element in the company's marketing and branding.

Previously the company's own technological resources often served as the basis for company innovation. The purpose was to develop products with a technological edge that distinguished the products from their competitors'. It was then up to the market-orientated departments to determine how the product could be adapted, designed and marketed to reach the consumers.

Those days are over. Today, companies must focus their efforts on user needs and identify non-recognised needs with a large market potential as the starting point of innovation. If the companies do not manage to establish a much closer level of contact with users and involve them in the innovation process, they will have a very difficult time competing with other companies in the area of innovation.

The companies' approach to innovation has taken a 180 degree turn. Concept creation based on user and social needs has become the new approach towards innovation.

Therefore, concept design is and will continue to be a discipline undergoing significant growth.

This study has identified a number of different business strategies for concept design companies. As mentioned earlier, no evidence was found to prefer one business strategy over another; rather, it is the expectation that different business strategies may thrive side by side. However, the competitive situation may be different depending upon the company's choice of specialisation.

We can expect a substantial increase in the business world's demand for concept creation on the most abstract and strategic level – i.e. the answers to the question "what?". A growing number of companies will find it necessary to work with the future in a strategic manner. Where will they be in 10 – 20 years? Which unsolved user and social problems will they need to find new and better solutions to?

The significant growth in the application of concept design in its most abstract and strategic form is taking place at a time where the supply of concept design is most limited. This points to a very exciting and growing market for the strategic concept design company working at the top of the cone in the concept design model.

The strategic concept design company will develop concepts for the client company which it will subsequently leave to others – the client company itself or a design company – to concretise. But the strategic concept design company will also work on the client company's innovation processes; that is how the company should be organised, which competences the company requires and how the company should collaborate with its users to become better at concept creation.

Today, we are witnessing that some strategic concept design companies concentrating on offering advice on the companies'

Management consulting firm Monitor Group moves into concept design

With approximately 1,700 employees and 28 offices located around the world, Monitor Group is a major player in the field of management consulting.

In May 2007, Doblin Group became part of Monitor Group. Doblin Group was mentioned as a concept design company in the Chicago segment of this study. It is interesting that one of the world's leading management consulting firms decided to acquire Doblin Group to strengthen its capacity in concept design. Prior to this addition, the innovation unit Innovation Management Inc. was also made a member of Monitor Group.

innovation processes, while other strategic design companies are concentrating on the actual concept creation.

A rapidly growing market for concept design will attract a lot of new companies. We have already witnessed this development taking place. In Denmark, almost half of all concept design companies are new businesses.

It is also expected that companies from across many different industries will enter the field of concept design. We are already seeing the advertising industry moving into the market for concept design. Also consulting engineers, architects and - not least - management consultants are expected to take interest in this emerging market.

Design companies have been among the first to move into concept design, but in the coming years one should expect increased competition from both entirely new companies and from companies in other industries. There will undoubtedly be room for many different types of concept design companies with different specialisations and business models, but there will also be tough competition.

If it is true that the design competence is central to concept creation, then design companies are presented with a special opportunity. To utilise this opportunity requires first and foremost that the design companies succeed in integrating business management and social science competences with the design competence.

That concept design will be a strong growth market does not mean that the market for traditional design will decline; on the contrary. Global competition on innovation will also lead to a growing need for concrete design solutions. However, here we also find new competitive patterns and specialisation.

We have already witnessed how traditional design projects have been outsourced from the United States and Europe to China and India, and it is not just a question of price. It is indeed true that costs are much lower in China and India, but the quality often matches that found in Europe and the United States.

The outsourcing of concrete design will increase in the coming years. Globalisation means that still more companies are working on the global market and adapting their products and services to different cultural conditions. And we are already seeing a tendency towards regional design companies being tasked with designing products and services for their own regions – be it Asia, the Far East and South America.

One should therefore expect an increased level of competition in the market for concrete design solutions. This competition will in particular impact European and US design companies that remain on the traditional design market. So even though the market will grow – also in Europe and the United States – it is far from certain that the European and US design companies will claim their share of the growth.

The natural response to this kind of increased competition is further specialisation. This applies to all the traditional design functions where it is possible to specialise within an individual or a limited number of sectors and in special offerings. For industrial design, this could be specialisation within luxury design, furniture design or medical design.

In the years ahead, the design companies that succeed in specialising within especially demanding business segments are likely to hold the best opportunities in the growing competition on traditional design.∎

"Today, I would estimate that there are about 50–100 companies like us in the world. In ten years' time I believe there will be about 200 companies in the world working this way."

Dinesh Goburdhun, Senior Team Lead at the concept design company Gravity Tank, Chicago. Gravity Tank has approximately 25 employees and has existed for 6 years

"I think that if design firms aren't prepared to learn more about strategy and growth, they are going to lose the field to strategy consultancy companies. Then the strategy consultancy firms will just buy design firms, strip out the best from them and integrate it into their offering – and design firms will have lost their place in the sun."

Roger Martin,
Dean, Rotman School of Management, Toronto,
in conversation about this study

More Associates

London
est. 2002

•

Number of employees: 7
Professional tradition: Industrial and graphic design

Case:
What is a new word for "kilo watt"?

More Associates is a design agency focusing on developing new, user-friendly solutions to large, abstract challenges within the areas of energy and the environment. They create new energy solutions such as new types of electricity meters, and work with energy companies and government authorities on a range of energy projects.

Due to increasing needs to produce and promote a sustainable lifestyle, many energy companies in England are becoming interested in the new green energy concepts. But according to More Associates, the energy companies have difficulties developing these concepts themselves, partly because the energy industry does not have a clear picture of who has the responsibility for, and who should take the initiative when creating new solution models. More Associates has been successful in selling concepts to the energy industry. "Rather than waiting for clients to come to us saying, 'we found an interesting problem - can you solve it?', we now look at the problem base which is about the environment, government policy and energy policy and market transformation in the energy industry, and then start ringing potential clients up and saying: 'We think we know what the answer for this is - but it needs these different players to bring it together", says Luke Nicholson, partner at More Associates.

One example of a project headed by More Associates is to make it easier for people to talk about energy. For many people, terms such as "kilo watt" and "CO2 ton" do not carry any particular meaning. More Associates works with 20-30 energy organisations, the largest energy companies in England, poets, semioticians and users to design a new language and new mental metaphors that will help make the public energy debate more relevant to more people. "We allow the public energy debate to happen faster", says Luke Nicholson. More Associates is conducting a user-driven study of public attitudes towards energy and is testing new terms and

concepts. A panel of users was set up by an energy company and users were interviewed by More Associates. In this way More Associates can identify the needs of both the market and the users at the same time as it acts as a bridge-builder between organisations and market interests.

More Associates, London

4.5 The move forward

It is difficult to tell where the growing concept design industry will locate in the future, but it would not be surprising to witness a certain level of concentration with perhaps 10 to 15 global hubs hosting the leading companies in the field. This type of development has already been demonstrated across many other business areas.

9–10 regions already distinguish themselves as possible global hubs for an increasingly interesting concept design industry.

This study has also attempted to shed light on the fact that such a large number of concept design companies are located within a few regions.

This was achieved by asking the interviewed companies about their own opinion as to why their region is home to a relatively high number of concept design companies. However, their responses are far from definitive and it would require more in-depth analysis to identify the entire explanation, but some reasons surfaced on several occasions.

According to the companies, three reasons carry particular significance:

- The needs of the client company
- The education offered by universities
- Network formation

<u>The needs of the client company</u>
Almost all of the companies agreed that the type of project presented by the client is very important for independent

subcontractors when offering concept advice. If a concept design company has one of the world's leading companies in its field as a client the concept design company should belong to the elite. San Francisco, New York and London are home to companies that lead the global market and which were among the first to demand concept design services.

<u>Design universities</u>
In some areas, the local design college or design department at the local university is given as a central reason for the region's leading position within concept design. The reason is the quality of graduates produced by these institutions and the knowledge that is developed at design colleges and universities, as well as the ability of these educational institutions to diffuse this knowledge.

There are, however, relatively few design colleges and universities that have responded to the interdisciplinary challenge within concept design and adapted their curriculum and research accordingly.

There are also relatively few design colleges and universities that maintain close ties with the business world in order for the latest business trends quickly to establish themselves in the educational institution to inspire the kind of teaching and research that can spar and interact with the business world, and thus provide businesses in close contact with the university with new inspiration.

However, we find several interesting examples of how new concept design companies spinning off from universities and competing with established companies in terms of new ideas and business models. Not least, the appearance of these new companies is contributing to the creation of a dynamic and growing cluster of concept design companies.

The study highlights 4 design colleges or universities that hold significant importance to concept design in the region:

- Parsons The New School for Design in New York
- Stanford University's design department in San Francisco
- Institute of Design, Illinois Institute of Technology in Chicago
- Royal College of Art in London.

The 4 highlighted institutions cooperate with companies from around the world and are therefore not maintaining any special focus on the region's business community. These design institutions are looking to draw inspiration from the best companies from all parts of the world.

Graduates from the 4 institutions come from all over the world and spread out again after completing their educations. However, the regional concept design companies assert that their proximity to the world's leading design colleges within concept design bears special significance for their knowledge and access to necessary but scarce resources.

The reason is very likely the impact of network knowledge sharing. The recently established school at Stanford University is a good example. The school is based on a multidisciplinary idea, and students have a substantial amount of influence on project content and can assume surprising levels of initiative via interaction with the business world. The local business community benefits greatly from this.

Network formation
We see relatively significant differences in terms of openness and willingness for experience sharing across the difference regions. This is probably explained by tradition and culture. The openness and spontaneous inclination to meet and share knowledge is evidently greater in California than

demonstrated in other regions. This applies both to the business world, design colleges and design companies that come together to form broad interdisciplinary networks.

It is not uncommon to see competing design companies in San Francisco meeting in various informal contexts to openly discuss industry challenges and company experiences. Key employees can even move between competing companies without this disrupting working relations.

The level of openness that characterises the US West Coast is not found to the same extent on the US East Coast or in Europe, but it may be in future. As mentioned earlier in this study, several new concept design companies have started up in the Munich – Stuttgart – Nuremberg region, and several of these are branches of concept design companies headquartered in San Francisco. Some of the employees have also worked on the US West Coast and are involved in establishing similar network initiatives in Germany. Only time will tell whether these efforts will prove sufficient to establish a more open and constructive culture for experience exchange in these regions.

Adaptive Path

San Francisco
est. 2001

●

Number of employees: 25
Professional tradition: Interaction design

Case:
What can openness do for concept design companies?

Adaptive Path specialises in designing experiences and user interfaces for the software and electronics industries. The company also works within other industry sectors. Adaptive Path clients include Yamaha, Intel and Nokia.

Ethnographic methods are an important aspect of Adaptive Path's work and together with market analysis, make up the platform for Adaptive Path's work. The company presents its results in a report, design brief, road map or a model describing how the client company should design its experiences or user interfaces to ensure that they meet user needs.

Adaptive Path is located in the heart of San Francisco in an area that is also home to departments of other concept design companies such as IDEO and Cheskin. This proximity to other concept design companies is no coincidence. Openness and networking is very important to Adaptive Path. The company often participates in network activities with the other concept design companies in San Francisco, and often hosts their own network events as well.

Network activities are important for Adaptive Path in keeping up with the latest developments in concept design, to meet knowledge individuals within the field as well as meeting potential clients.

The following is an example of an Adaptive Path network event (issued to local design blogs and design news websites):

"It's Adaptive Path's Sixth Anniversary!
It's that time of year again. Join us for our annual fiesta (yes, the taco truck will be back) on Friday, March 2. Bigger and better every year, the party will start at about 6:30 PM and wrap-up much, much later.

Mark March 2nd on your calendar and come and visit us at our San Francisco headquarters. All are welcome. Please let us know you're planning on attending by RSVP-ing below."

Lunar Europe and Third Thirsty Thursdays or "Stammtisch"

München
est. 2007 | europe office

•

Number of employees: 56 (worldwide)
Professional tradition: Industrial design

Case:
What can get-togeters do for concept design companies?

Lunar is a Californian design company which opened their first branch in Europe in 2007. The branch was opened in Munich by two Europeans who had worked for Lunar in the United States.

As part of the European launch, Lunar introduced one of their company traditions from California known as Third Thirsty Thursday. As the name implies, Third Thirsty Thursday is a casual event held every third Thursday. Interested players from the design and consulting industries are invited to the event to informally share their business experiences and stories. When Roman Gebhard, one of the partners at the Munich branch, arrived he was surprised at how difficult it was to meet other business colleagues in the same laid-back way, and so together with Lunar he introduced 'Stammtisch' ('get together') – the Bavarian version of Third Thirsty Thursday. "We thought we needed a little West Coast atmosphere over here," explains Roman Gebhard.

Stammtisch helps to bring together colleagues and competitors, often leading to new projects and methods of cooperation. Lunar Europe has just begun partnering on a project with a consulting firm that participated in one of Lunar's "Stammtisch" get-togethers.

The Danish example

The three drivers that the concept design companies believe are significant to the development of concept design – client company needs, designs schools and network formation – may explain why regions such as New York, San Francisco, Chicago and London are leading areas within concept design. But the fact that Denmark is also advanced with regard to concept design is hardly related to these three drivers.

Denmark is home to a few large companies that have made great strides in combining concept creation and innovation, but this is hardly a decisive factor for the rapid pace of development within concept design.

One of the 4 Danish design colleges under consideration had previously engaged in work focusing on user influence and design. This is positive but again it hardly explains Denmark's position in the field.

And since there is no tradition for openness and knowledge sharing between Danish design companies, nor is this aspect believed to play a role in the development of concept design in Denmark.

When directly asked, several Danish concept design companies claimed that it is a natural part of the Danish tradition to focus on user involvement and concept making. Several Danish concept design companies also mention the public sector as a concept design driver. For some of the large Danish concept design companies, the public sector claims as much as one third of the demand for their services.

Another explanation – one that is not, however, highlighted by the Danish design companies themselves – may be the successive Danish governments' design policy.

Denmark was probably one of the first countries to adopt an official design policy in the early 1990s. This policy did not encompass concept design, but as early as the mid-1990s, 4 of the largest Danish design companies formed a partnership with the Danish government that led, among other things, to the compiling of a research report on User-Centred Design ("Brugercentreret design", Hedegaard Jørgensen, Stine, published by the consortium for user-centred design, Bysted, Christian Bjørn design, CPH Industrial Design, Kontrapunkt, 2003).

During the same period, the Danish government also introduced an international design award – INDEX: Design to improve life – which reflects the same perception and disciplines that govern concept design.

In recent years, 3 of the 4 Danish design colleges formed a new strategy in which the position of the concept design disciplines would be improved, and focus is also on greater openness and closer cooperation between design schools and the business world.

2007 brings the opening of an academy for concept making, 180º Academy, and Danmarks Designskole is in the process of establishing an international institute for interactive design, CIID.

Though it can be difficult to assess the value of such initiatives, it cannot be ruled out that the government initiatives have had a direct effect. In any case it has been established that these initiatives have been instrumental in setting a new agenda for Danish design∎

180° Academy

180° Academy is a new educational institution for concept makers. The institution teaches individuals and organisations how to create successful concepts by combining theory with practice. Methods taught by the Academy include methods from the worlds of design, sociology & anthropology, marketing, and business planning.

What is interesting about 180° Academy is the way in which they address their offerings directly to the companies, which collaborate across business segment borders and disciplines to create new concepts. Companies can also tailor projects relevant to their individual needs and make use of sparring services from experts throughout the process.

180° Academy offers a number of company-targeted educational programmes for timeframes of 4–15 months.

For more information visit
http://www.180academy.com

INDEX: Design Award

INDEX: is the world's largest design award presented every year in Copenhagen. INDEX: has an ambitious view of design. One of the criteria upon which design solutions are evaluated is their ability to improve everyday life. This may include design solutions that aim to solve problems of a social, environmental or health-related nature. The awards are presented in 5 categories: Body, Home, Work, Play and Community, and the winner in each category receives an award of EUR 100,000.

For more information visit
http://www.indexaward.dk

Copenhagen Institute of Interaction Design (CIID)

Copenhagen Institute of Interaction Design (CIID) opened in early 2007 to establish a multidisciplinary environment for the development of user-centred design and technology solutions. CIID is an education, research and consultant institution that aims to generate new knowledge of how people interact with technology. The knowledge created must have both research value and a high degree of applicability for industrial enterprises.

CIID's consultancy can already boast Philips as its first client, but the educational institution itself will first open its doors to students in 2008. The research lab will develop non-commercial research financed by the EU, among others. CIID often holds open events that can be signed up for on the CIID blog at http://blog.ciid.dk/.

For more information visit
http://www.ciid.dk

List of visited or contacted companies and organisations

Please contact them if you whish to know more about their practice.

Denmark

Designit
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LEGO
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