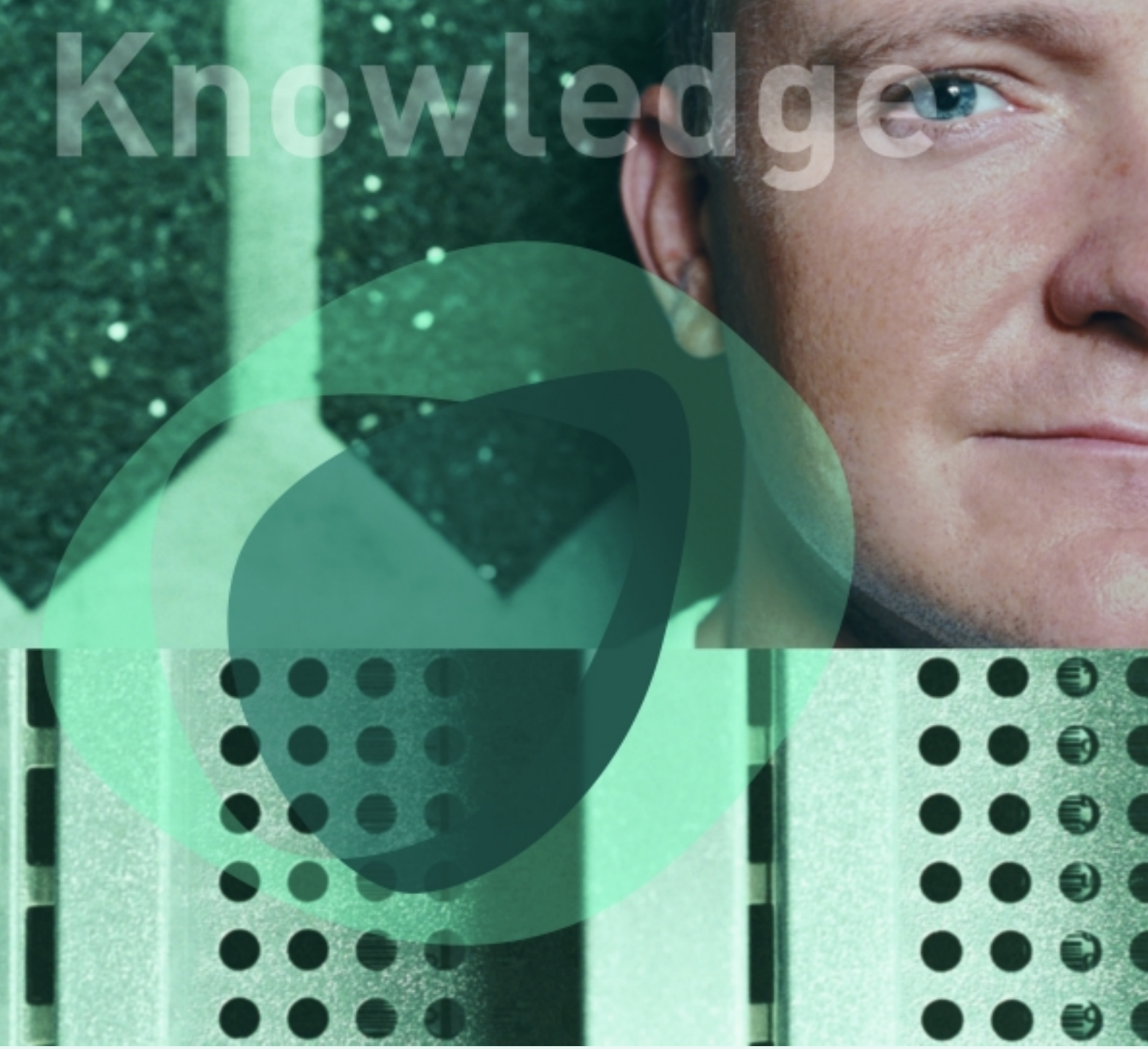

Intellectual Capital Statements – The New Guideline

Ministry of Science
Technology and Innovation

Intellectual Capital Statements
– The New Guideline

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This publication can also be downloaded
from the homepage of the Danish Ministry
of Science, Technology and Innovation:
www.vtu.dk/icaccounts
ISBN (Internet): 87-91258-51-0

Publisher:
Danish Ministry of Science,
Technology and Innovation
Bredgade 43
1260 Copenhagen K
Denmark
Tel.: +45 33 92 97 00
Fax: +45 33 32 35 01
E-mail: vtu@vtu.dk

Translation:
Jeanny Fabritius, Interlink

Layout:
Design Factory ApS

Printing:
Saloprint a/s

Number of copies printed:
1000

February 2003

ISBN: 87-91258-50-2

Intellectual Capital Statements – The New Guideline

Danish Ministry of Science, Technology and Innovation

This new guideline for intellectual capital statements is a revised version of the 2000 edition. It is the result of extensive co-operation between researchers, companies, industry organisations, consultants and civil servants and has been co-ordinated by the Danish Ministry of Science, Technology and Innovation.

In the second phase of the project, started in 2001, industry organisations together with around 100 companies and public organisations have tested the original guideline. A research team led by Professor Jan Mouritsen, Copenhagen Business School, has brought together and processed their many experiences.

Experience shows that the original guideline concept works well. The new guideline therefore uses the same basic structure, but is expanded with new elements and has been significantly improved in two areas in particular. Firstly, it is based on much greater experience, and instructions and recommendations can therefore be much more concrete, precise and better supported. Secondly, it has been written so that it accommodates a number of special conditions that apply to some companies and organisations.

The authors of this guideline are:

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Foreword

In Denmark, we have a need to secure and develop our prosperity and welfare. We therefore must strengthen Danish companies' ability to compete and use our resources better in the public sector. What this in particular requires is that we become even better at developing and using the knowledge that creates value in future society. Our ability to manage and administer knowledge resources, in short, will determine whether we can release the substantial potential that lies within private companies and public organisations.

This new guideline on intellectual capital statements is an important tool in this work. It can support companies and organisations in building up, developing, sharing and anchoring the knowledge that can make their products and services worth more to consumers. In other words, this guideline gives companies and organisations the opportunity to work more systematically and comprehensively with the many initiatives within knowledge management that many companies have already started. The guideline also provides a good basis for communicating knowledge management policies to existing and potential employees, customers, investors and the general public.

The new guideline is built on a very solid basis. The first guideline was published in November 2000, and since around 100 very different companies have used the guideline to prepare intellectual capital statements. The guideline principles have therefore proved their applicability in small and large organisations and across industries and sectors.

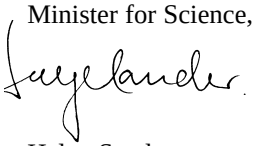
A research team led by Professor Jan Mouritsen of the Copenhagen Business School has followed, brought together and processed these companies' experiences. In addition, a long list of industry and other organisations have been involved in following and co-ordinating the work.

It is this unique co-operation between researchers, companies, industry organisations, consultants and civil servants that has brought Denmark to the international forefront in intellectual capital statements. The Danish work has been followed with interest, particularly by the European Union and the Organisation for Economic Co-operation and Development.

It is my hope that this guideline can help Danish companies become international leaders in the strategic use of knowledge. This would be an important contribution to the competitive power that we all have to live off.

I would like to take this opportunity to thank all companies, organisations and individuals who have invested both resources and great commitment in this project.

Minister for Science, Technology and Innovation



Helge Sander

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- Arkitema K/S *(architects)*
- Bon'A Parte Postshop A/S *(mail order business)*
- Bülow Management A/S *(management consultants)*
- Byggeplandata A/S *(building consultants)*
- Carl Bro Group *(consulting engineers)*
- Danmarks Journalisthøjskole *(school of journalists)*
- Dansk International Efteruddannelse (DIEU) *(management training course provider)*
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- Ementor Denmark A/S *(management consulting and IT solutions)*
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- Eterra A/S *(IT consultants)*
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- Foreningen af Statsautoriserede Revisorer *(Institute of State Authorized Public Accountants in Denmark)*
- GN StoreNord *(GN Great Nordic, telecommunications)*
- Københavns Fondsbørs *(Copenhagen Stock Exchange)*
- Ledernes Hovedorganisation *(Danish Association of Managers and Executives)*
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- Det Danske Handelskammer *(Danish Chamber of Commerce)*
- International Transport Denmark
- Teknologisk Institut *(Danish Technological Institute)*
- Økonomistyrelsen *(Agency for Governmental Management)*

Contents

Introduction

An intellectual capital statement is an integrated part of company knowledge management. It identifies the company's knowledge management strategy which includes the identification of its objectives, initiatives and results in the composition, application and development of the company's knowledge resources. It also communicates this strategy to the company and the world at large.

In this guideline, 'company' is used as a general term for a private enterprise, a public institution, a part of a group or any other organisational unit which intellectual capital statements are developed for.

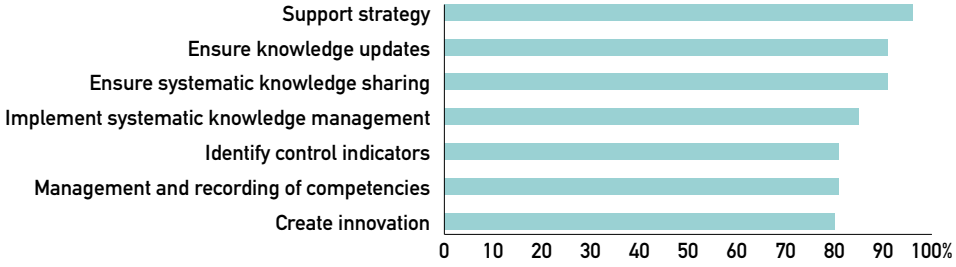
The intellectual capital statement is therefore a *management tool* used to generate value in a company and a *communication* tool to communicate to employees, customers, cooperative partners and investors how a company generates value for them.

The intellectual capital statement, like any other accounting statement, monitors initiatives and results and shows whether a company is developing its resources in the right direction. In this case, intellectual capital statements show whether a company has improved the development and management of its knowledge resources.

Intellectual capital statements' internal objectives

Intellectual capital statements are a part of companies' knowledge management *strategy*. If a company does not manage its knowledge resources, working with intellectual capital statements can develop this resource. If knowledge resources are already being managed in one form or another, working with intellectual capital statements can help systemise knowledge management, add other relevant initiatives and through this develop a proper strategy for knowledge management. Companies with experience in preparing intellectual capital statements have seen their primary management role as being to gain control of company strategy knowledge management. They have been looking for a coherent update of their knowledge and a systematic approach to managing and to sharing knowledge, which supports their company's general strategy. See figure 1.

Figure 1: Proportion of companies with the following internal intellectual capital statement objectives:



Source: Questionnaire survey of companies that have worked with intellectual capital statements

Intellectual capital statements' external objectives

Intellectual capital statements can also be used to communicate knowledge management's objectives, initiatives and results to a number of target groups:

- To the company it communicates identity, who 'we' are, and what the development strategy is.
- To potential employees it gives an impression of what it is like to be an employee including how their resources will be used and developed.
- To customers it sends a signal of what it is like to be a customer, including into the future.
- To co-operative partners it illustrates what it is like to co-operate with the company.
- To investors it documents the company's ability to survive future competition.
- To citizens it explains what is being done to secure the best possible services for users of public services for example.
- To the political system it gives insight into how the companies are run, allowing politicians to better estimate its competencies and quality.

Companies therefore become more visible and probably more interesting to these target groups. External intellectual capital statements can in other words make it easier to get a company's interests known and therefore attract new employees, customers or even investors. Most companies that have already published intellectual capital statements state that one of the statement's objectives is to communicate the company's 'invisible assets' and attract more employees and customers. These companies often want to show that they are innovative and flexible, and that knowledge and human resources are important assets. See figure 2.

Figure 2: Proportion of companies with the following intellectual capital statement objectives:

Source: Questionnaire survey among companies that have worked with intellectual capital statements

The guideline consists of the following four parts:

Part 1 briefly describes the elements of the intellectual capital statement and gives two examples of how they can look. This part focuses on the intellectual capital statement as a knowledge management tool and is a short introduction in how to prepare intellectual capital statements.

Part 2 describes in detail how to prepare intellectual capital statements, through going through each phase of the work to identify, build up, develop and anchor a company's knowledge resources.

Part 3 gives a number of directions on how to communicate and how to write external intellectual capital statements. It is often very challenging to draw the many strings generated by analysis together in an easily accessible publication.

Part 4 gives practical suggestions as to how the intellectual capital statement work can be organised.

The four *appendices* also describe the differences and similarities between intellectual capital statements and other management models and accounts types. They describe the problems associated with an industry specific guideline, and show in detail a number of relationships between key parts of intellectual capital statements.

Part 1: Elements of the Intellectual Capital Statement

This part of the guideline briefly explains the intellectual capital statement elements. There are four types of knowledge resources. Employees, customers, processes and technologies. To bring these into play, preparation of an intellectual capital statement results in 1) a knowledge narrative, 2) a set of management challenges, 3) a number of initiatives and 4) relevant indicators. These four elements together represent the intellectual capital statement.

Chapter 1 explains how intellectual capital and statements are interrelated.

Chapter 2 gives a summary of the elements in an intellectual capital statement.

Chapters 3 and 4 give two examples of how intellectual capital statement elements can be expressed. Examples include Maxon Telecom A/S and Odense Customs and Tax Region.

Chapter 1: Statement, Knowledge and Knowledge Resources

An intellectual capital statement keeps track of knowledge. Why a statement? Why knowledge?

In an accounting context, a statement is often associated with the financial reporting of profit, assets and liabilities. But a statement is in fact merely a report of progress and shows whether a company is on the right track. That is the role of financial reports, and the same applies to intellectual capital statements. It puts figures to initiatives and results, and puts words to describe their relationship. This applies to both financial and intellectual capital statements. Intellectual capital statements therefore keep track of the development of and the results from the part of a company's resources that relates to knowledge.

Then what is knowledge? Intuitively we see knowledge as being information, insight, thinking etc. It could be personal insight or knowledge that is stored within books or IT systems. When we add management to knowledge, knowledge management, the meaning becomes the aim of having knowledge. Knowledge is often used to improve a company's internal processes and performance, making it stronger and better able to create growth and quality.

Knowledge is, however, an 'intangible' which is a major challenge when it comes to accounting for it. You cannot see knowledge and it cannot be described, changed, developed or evaluated.

It first must be 'translated' into *knowledge resources*, which it is possible to point to and say 'that is knowledge'. Knowledge resources can be described, developed, evaluated and combined in new ways. In short, they can be managed, which means they can be described in an intellectual capital statement. This guideline uses the four most common classifications or types of knowledge resources, employees, customers, processes and technologies.

- Employees include employees' skills and personal competencies, experience, the combination of different types of employees and educations, employees' motivation, commitment, willingness to adapt etc.

- Customers include customer mix, relations to customers and users, their satisfaction and loyalty, their referral of the company, insight into users' and customers' needs and the degree of co-operation with customers and users in product and process development etc.

- Processes relate to the knowledge content embedded in the company's stable procedures and routines. These can be the company's innovation processes and quality procedures, management and control processes and mechanisms for handling information.

- Technologies refer to the technological support of the other three knowledge resources. Focus is usually on the company's IT systems (software and hardware) such as the intranet, IT intensity, IT competencies and IT usage.

A company's knowledge management is therefore about these four types of knowledge resources and *their interaction*.

Chapter 2: The Four Elements of the Intellectual Capital Statement

The intellectual capital statement consists of four elements which together express the company's knowledge management. The four elements link users of the company's goods or services with the company's need for knowledge resources. They include the establishment of the need for knowledge management, a set of initiatives to improve knowledge management and a set of indicators to define, measure and following up initiatives.

1. The first element is a *knowledge narrative* that expresses the company's ambition to increase the value a user receives from a company's goods or services. This value can be called the use value, and a set of knowledge resources are needed to create it. The knowledge narrative shows which types of knowledge resources are required to create the use value the company wants to supply. This ambition establishes a narrative because it merges the user's and the company's knowledge resources into a whole. It must be possible to tie the narrative together by words such as 'because', 'therefore' and 'in order to'. In this way the knowledge narrative argues for how knowledge is supposed to lead to improvements for a user. See also part 2, chapter 4.

Knowledge narrative

- What product or service does the company provide?
- What makes a difference for the consumer?
- What knowledge resources are necessary to be able to supply the product or service?
- What is the relationship between value and knowledge resources?

2. The second element is a set of (knowledge) *management challenges* which highlight the knowledge resources that need to be strengthened through in-house development or through sourcing them externally. This can be achieved by intensifying co-operation with innovative customers, by developing greater expertise in specific fields or by acquiring better insight into the company's control processes. Management challenges such as these have a certain degree of permanence over time. They usually do not change every year as they are closely linked to the knowledge narrative and therefore to the individual knowledge resources within the company. The starting point for the management challenges could be to do something about the existing knowledge resources. But it could also be to introduce new types of knowledge resources that are currently not found within the company. See also part 2, chapter 3.

Management challenges

- Which existing knowledge resources should be strengthened?
- What new knowledge resources are needed?

3. The third element is a set of *initiatives* that can be started to do something about the management challenges. The initiatives are concerned with how to compose, develop and procure knowledge resources and how to monitor their extent and effects. This could be, for example, investing in IT, hiring more R&D consultants or software engineers or launching training programmes in company processes and procedures. Vocational and social activities can also be introduced to increase employee satisfaction. These are all, in principle, short-term actions. Comparing one year with the next, initiatives must be seen to work, even if specific types of initiatives are repeated over several years. These are specific initiatives which specific players are responsible for. Somebody hires personnel, somebody launches training initiatives and somebody develops the required procedures and routines. See also part 2, chapter 2.

Initiatives

- What initiatives can be launched?
- What initiatives should be prioritised?

4. The fourth element is a set of *indicators* which make it possible to follow up whether the initiatives have been launched or whether the management challenges are being met. Indicators make initiatives visible by making them measurable. It is therefore possible to determine whether an initiative has been started and its effect. Some indicators are directly related to specific initiatives such as 'training days' or 'amounts invested in IT'. Others are related only indirectly to specific initiatives such as 'number of R&D consultants' or 'newly appointed software engineers'. See also part 2, chapter 5.

Indicators

- Which indicators can each initiative have?

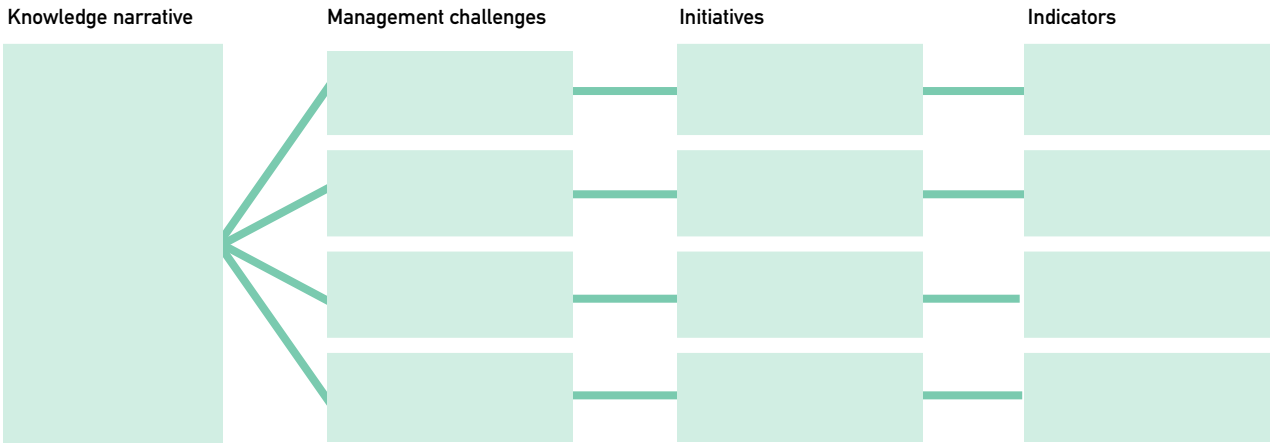
  Indicators can measure:
  - effect
  - activities
  - resource mix

These four elements together represent the analysis of the company's knowledge management. It is important to emphasise that these elements are interrelated. The relevance of these elements only becomes clear when you see them in context. The indicators are difficult to interpret individually as the knowledge narrative becomes 'free prose' if not illustrated by the indicators.

The elements work together. The indicators show how initiatives are launched and put into effect. The initiatives formalise the problems identified as management challenges. The challenges single out what has to be done if knowledge resources are to be developed. The knowledge narrative also sums up, communicates and re-orientates what the company's skills and capacity do or must do for consumers, and which knowledge resources are needed within the company.

Once fully completed, the analysis can be presented in the intellectual capital statement model shown below. The model structure signals that there is an interrelationship between the individual elements in the intellectual capital statement after the work has been completed. The model illustrates well the interrelationship between them in the company's knowledge management. In chapters 3 and 4 we use this model to present the main features of two companies' intellectual capital statements.

Figure 3: The intellectual capital statement model



Chapter 3: Intellectual Capital Statement - Maxon Telecom A/S

Maxon Telecom A/S designs and develops cutting-edge mobile telephones for its Korean parent company, which then manufactures the phones. Maxon Telecom is given the basic specification for mobile phones and takes part in an active dialogue on technical specifications and designs. Maxon Telecom provides competent sparring necessary for its Korean parent company to supply 'communication, anytime, everywhere' to its customers.

As a competent sparring partner, Maxon Telecom must be able to compile and exploit the necessary knowledge resources. This can be achieved in many ways and the knowledge narrative specifies which knowledge resources Maxon Telecom considers are necessary to create use value. Highly skilled employees are particularly important because they own the ability to 'play' with technology and make new technologies work. These employees must also be motivated to become involved in the company's business as only then will customers' and users' needs be met. It requires an understanding of mobile phone users', manufacturers' and operators' needs. Maxon Telecom is a development house and therefore has to be at the cutting edge of technology and also requires knowledge of existing as well as future technologies.

A mobile phone market demand is that new developments can be quickly brought to the market. If this is not achieved, communication is weakened which affects use value. As development work is organised into independent projects, the company must be able to run projects so that they finish on time, on budget and at the required quality level. These are the knowledge resources that must strengthen Maxon Telecom through initiatives.

Some of management challenges are about developing existing knowledge resources, such as personal knowledge and project management skills, that give 'on-time products'. Others are about acquiring knowledge that is not found within the company such as monitoring technology development and product development with respect to customers' and users' needs.

The challenges are addressed in the initiatives launched by Maxon Telecom. The initiatives are designed to establish contact with external parties through communication with end users and through networking and conferences. Initiatives in Maxon Telecom also are for the systematic development of the competencies identified as necessary to supply use value. This applies to, for example, personal and specialist competencies and project management competencies.

The indicators give the company the ability to follow up how initiatives develop, their effect and ultimately whether Maxon Telecom is able to supply the use value they are working for.

This can be presented in the model set out in chapter 2. The contents are slightly revised in comparison with the intellectual capital statement that Maxon Telecom published in 2002. See figure 4.

Figure 4: Maxon Telecom's intellectual capital statement 2001

Knowledge narrative	Management challenges	Initiatives	Indicators
• Product or service: Maxon Telecom develops and designs mobile phones based on cutting edge technology. • Use value: Competent sparring to provide 'communication, anytime, anywhere'. • Knowledge resources: Employees' specialist knowledge and competencies, insight in users' and customers' needs, insight in existing and future technologies and the capacity to run projects.	• Product development	• Check users' expectations and satisfaction	• Number of satisfaction studies (and market surveys) conducted • Customer satisfaction with quality • Number of projects ordered in the year
	• Improvement of personal skills	• Conduct employee performance reviews • Establish and implement competency development plans • Implement tutor schemes • Implement management training • Implement CASE training • Implement leadership coaching	• Absence • Rate of completion of training needs outlined in the MUS conclusions • Employee satisfaction with course or training initiatives • Number of performance reviews held on schedule • Employee satisfaction • Employees' assessment of their colleagues' interpersonal skills and competencies • Staff turnover • Number of employees with competency development plans • Number of employees on job rotation, being promoted or posted abroad • Number of employees who believe they can develop in Maxon, both professionally and personally • Number of employees who see their immediate superiors' as being capable of motivating them satisfactorily • Number of new employees in proportion to number of tutor schemes
	• Ensuring products are on-time	• Launch Microsoft Projects training • Implement project organisation • Implement teambuilding process	• Number of projects implemented on time • Number of projects kept within the agreed budget • Number of junior project managers recruited in-house • Number of employees approved to work as project managers • Satisfaction with distribution of responsibilities between and within departments • Employees' satisfaction with the ability to act with speed • Number of project groups with under 16 members • Number of project groups without own project room
	• Creating knowledge of and competencies within current and future technologies	• Train people in new technologies • Introduce roadmap • Participate in conferences • Being a part of operators' and development houses' networks	• Participation in CEBIT and Cannes • Number of co-ordinating meetings a year • Number of departmental managers/technology scouts in operators' networks • Number of developers in external networks

Chapter 4: Intellectual Capital Statement – Odense Customs and Tax Region

Odense Customs and Tax Region supplies secure and systematic tax assessment to businesses. The organisation's ambition is to prevent unfair competition through equal treatment of its users, its users being companies in the region. A further ambition is to have a modern payment collection system. Users have been consulted so that the complex statutory rules and regulations are easy to understand. Odense Customs and Tax Region considers itself to be a partner to private sector businesses and tries to establish close relations with the business sector for efficient knowledge sharing for the benefit of both parties.

To fulfil this ambition, the management challenges are concentrated on a deep insight into business life. There is interest in this on both sides, even though companies are 'compulsory customers' as mentioned in the knowledge narrative, they are willingly assuming a joint responsibility for correct tax collection. So that Odense Customs and Tax Region can meet the business world's expectations, working groups have been set up in each of the core areas of taxes, value added tax, charges and customs. These groups are to ensure that companies are given effective guidance as soon as newly acts and statutes are adopted. Furthermore, newly established companies are offered a company consultant from Odense Customs and Tax Region, who can help the company through the start-up period.

Two of the management challenges relate to the employees. Firstly, a high service level must be secured through retaining and recruiting highly skilled employees. The initiative is a personnel policy whose objective is to create a 'modern, attractive and family-friendly workplace'. Secondly, employees must develop the professional and personal competencies necessary to handle the complex acts and statutes. The initiative is therefore supplementary and in-house training. Other management challenges include improving internal organisational processes, expanding the IT structure and better quality assurance to ensure equal treatment of companies and to prevent unfair competition. Employee competencies are obviously in focus, even in support functions such as IT, organisational development and quality assurance.

At the indicator level, nearly all measurements are already available in the company, which has previously worked with other management systems. New measurements do however have to be introduced.

This is shown in the model presented in chapter 2. The contents are slightly revised compared with the intellectual capital statement published by Odense Customs and Tax Region in 2002. See figure 5.

Figure 5: Odense Customs and Tax Region intellectual capital statement 2001

Knowledge narrative	Management challenges	Initiatives	Indicators
• Product or service: Secure and systematic assessment of taxes for businesses. • Use value: Prevention of unfair competition. • Knowledge resources: A simple, effective and correct tax collection system advising users on the administration of often complex statutory rules and regulations.	• Deep insight into users' conditions	• Analyse users' expectations and satisfaction • Monitor business activities • Monitor new legislation	• Number of new laws on taxes, excises and duties • User satisfaction measurement • Number of annual surveys
	• Hiring and retaining employees	• Plan future need for competencies • Create a family-friendly workplace • Promote Odense Customs and Tax Region, including its role in society • Develop a relationship between wages and results • Develop assignments characterised by responsibility and independence	• Staff turnover • Age distribution • Number of schemes on part-time work, leave and other time off • Number of applicants • Number of employees with new salaries • Number of employees with bonuses • Employee satisfaction survey
	• Development of professional and personal competencies among the personnel	• Create an overall understanding of Odense Customs and Tax Region's products • Develop knowledge sharing across professions • Introduce competency development • Introduce development methods	• Number of job changes in the organisation • Number of courses and other knowledge sharing activities • Number of international exchanges • Training cost size • Competency evaluation
	• Development of new effective processes	• Develop a process and a culture of improvement	• Number of process descriptions • Number of improvement proposals • Benchmarking
	• Electronic accessible rules, practices, processes and experience	• Anchor rules, practices, processes and experience electronically • Monitor results of new legislation, user behaviour etc.	• Number of applied process descriptions • Number of decisions • Number of new acts and changed practices
	• Quality assurance with respect to equal treatment	• Prepare quality declarations • Prepare quality assurance guide • Analyse users' expectations and satisfaction • Always behave politely and correctly	• Number of language analyses • Number of quality assurance decisions • Number of appeals • Number of complaints • User satisfaction surveys in this area

Part 2: How to Prepare an Intellectual Capital Statement

This part of the guideline shows in detail how to prepare an intellectual capital statement. The analysis process runs continuously forwards and backwards between knowledge narrative and indicators, between the general and the detail. It is only completed when a coherent relationship between the four elements of knowledge narrative, management challenges, initiatives and indicators can be formulated. It is often necessary to return to each of these four elements several times. It is generally an advantage to bring existing activities and knowledge management objectives together so you quickly have material to work with.

It can be difficult to complete the knowledge narrative at the first attempt. This part of the guideline is organised so that the knowledge narrative can be gradually revealed through working with activities and ideas that are closely related to the company's every day activity.

This part of the guideline presents a series of aids to help fill the four elements with content, which is mostly the company's own ideas of what good knowledge management is. The guideline should not be seen as being a straightjacket but an aid to posing relevant questions and through this check whether the company's knowledge management is coherent.

Chapter 1 describes a method for preparing an intellectual capital statement by working with all of its four elements simultaneously, starting with the existing knowledge management activities.

Chapter 2 shows how to get an overview of the activities and initiatives already started or that the company wants to start.

Chapter 3 helps with the grouping of these initiatives into management challenges.

Chapter 4 shows ways of getting the knowledge narrative formulated and through this the company's knowledge management ambition.

Chapter 5 deals with the choice of indicators.

Together these chapters form a guideline for designing intellectual capital statements. The process of communicating the results in an external document is described in part 3.

Chapter 1: Working with Intellectual Capital Statements' Four Elements

When a company decides to work with intellectual capital statements, the following questions quickly arise. What content should the four elements have? Where should the process begin?

A good basis for this work is the knowledge management activities currently ongoing in the company.

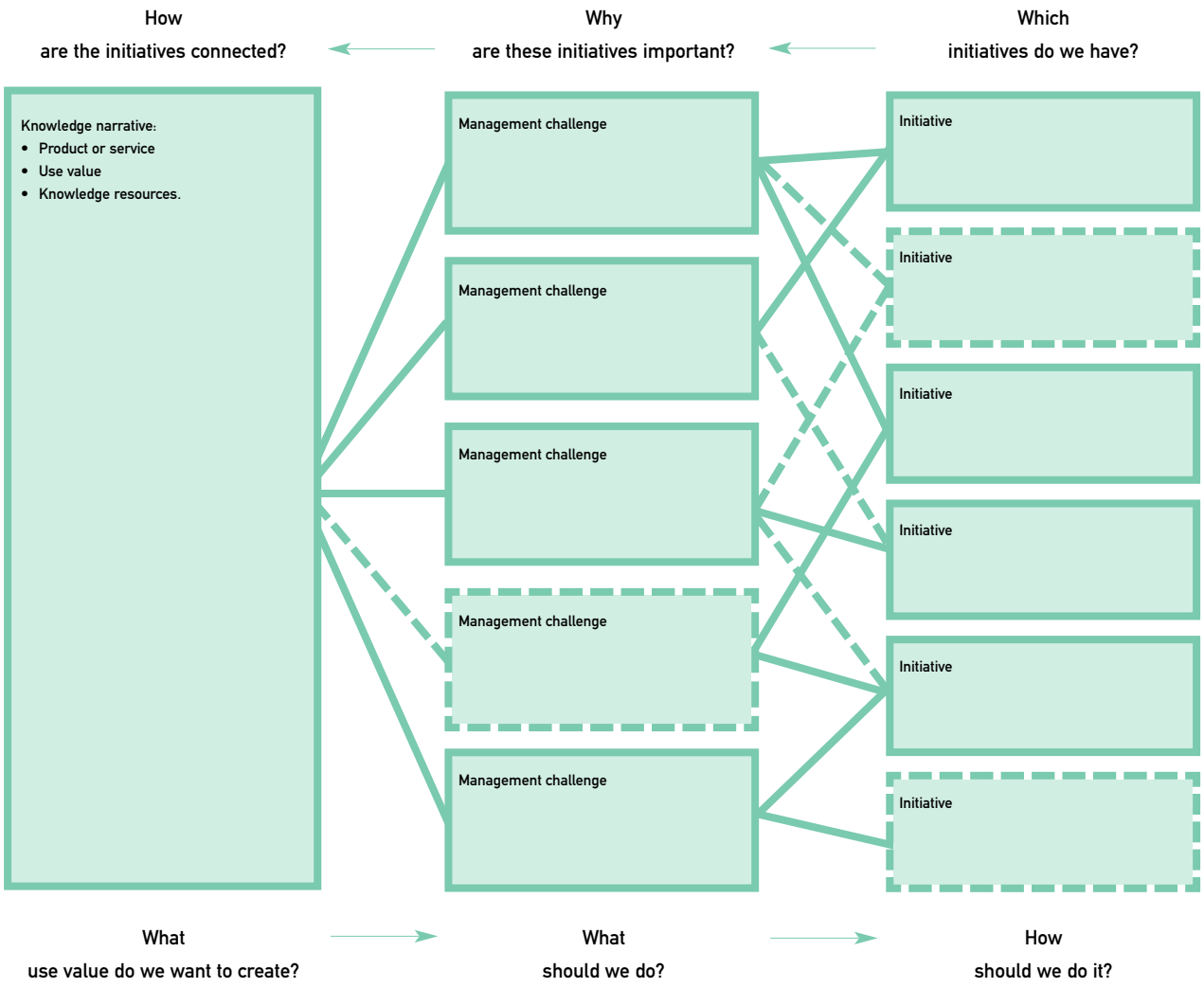
To pin down the company's knowledge management, what already takes place in the company and the existing conceptions of what could or should take place must be identified. It may need to be realised that certain initiatives have to be strengthened or completely new ones have to be started before the company's actual knowledge management matches conceptions of what should be taking place.

Preparing an intellectual capital statement is a creative activity where a meaningful whole is gradually developed. The important thing is not to get locked in one place. If, for example, work with the knowledge narrative stagnates, it could prove useful to return to the initiatives and reconsider why they were chosen, or resume work on the management challenges.

The intellectual capital statement model version below (figure 6) shows this 'back and forth analysis' of the company's knowledge management. The model initially does not include indicators because they are not a part of knowledge management activities.

The adhesive that binds the individual elements together are the words 'therefore' or 'because'. These two words are important because they ensure that there is always an *argument* that can make knowledge management coherent. Knowledge management does not become true because the words 'because' and 'therefore' are used in a sentence. But it does make it easier to understand and to relate to.

Figure 6: Help questions to obtain coherence in intellectual capital statements



The two sets of questions above and below the model help to express the interrelationships between the elements. These help questions are supplemented by subsequent chapters in part 2, which show how to fill in individual elements.

Just as it is important to use the words *'therefore'* and *'because'* when working with creating *coherence* between the individual elements, it is also important to ask the question *'why?'* when working with each element. The answers to the questions 'why this initiative?' and 'why is this an important management challenge?' contribute to developing the company's knowledge narra- To tive. When answering such questions, the reply is based on the company's knowledge management. Answers might not always be well formulated initially, but can through this process gradually become clearer and clearer.

Interrelationships

Replies such as 'therefore' and 'because' and the question 'why?' help to formulate a coherent intellectual capital statement.

avoid the work stagnating to a halt, it is important to not work with details at too early a stage. This can be avoided by working with the entire intellectual capital statement model at the same time. The procedure could be as follows.

1. Fill in the model with preliminary and immediate ideas of its contents. Contents could be current situations and ambitions of what the company would like to start. This filled in information is a hypothesis, which has to be subsequently developed, modified, rejected and reformulated.

   - The start point is often a quick overview of the company's current situation, i.e. existing initiatives and objectives relating to knowledge management. There might not be many, but it may be that the company just did not realise them to be knowledge management. At the start phase, thinking should be broad and creative.

   - The question can then be asked whether these actions are viable. This involves considering their effects and objectives with respect to the company's immediate and its more strategic objectives. This part of the analysis is about management challenges and about the ambition the company wants to pursue.

2. Once the preliminary soundings are completed, the contents of the four elements can be looked at more systematically. Using the help questions for individual elements given in the following chapter, the work can begin to close in on a coherent knowledge management.

   - You can start by asking whether the individual elements are themselves coherent. This involves checking the contents to find out whether they are relevant and are an expression of the knowledge management that is taking place or is desired in the company.

   - The next step is to find out whether the individual elements should be adjusted or developed so that their contents represent the company's opportunities and ambitions better. This could lead to a redefinition of element contents.

3. Then the model as a whole is returned to. Is it now coherent? Can you now explain how knowledge creates value and what the company does to become better at creating value?

   - Two sets of help questions from the model can be used here (figure 6). The questions must be answered convincingly.

   - Coherence can be further tested by checking whether 'argumentation words' such as 'because' and 'therefore' are being used to connect the elements in the model together.

4. The intellectual capital statement design is now ready. But before proceeding further, it is a good idea to let someone outside the process evaluate whether the intellectual capital statement seems convincing as a whole and whether it is coherent. If not, the analysis process has to be gone through again.

The work is completed when you have a coherent explanation. You should be continuously critical of all the elements, and they should be reassessed until everything is coherent. The dotted lines and boxes in figure 6 indicate that each element may be too weak and suggested coherences can be incorrect. You can have identified inappropriate initiatives, found indistinct management challenges or suggested an insufficient ambition. The process should therefore be sufficiently open to make it possible to change elements and interrelationships in the model, if you consider they do not work in the context.

Filling in the model *gradually* leads to the knowledge narrative. In practice, it is often difficult to immediately determine the knowledge narrative use value and how it relates to the necessary knowledge resources. It is much more efficient to start with an overview of existing activities and objectives that relate to knowledge and knowledge resources. This will create a recognisable and specific basis for developing the company's own version of knowledge management.

Chapters 2, 3 and 4 provide a detailed guide on how to get through this process. Based on the above idea, the process is described 'in reverse', which means taking initiatives first. Starting with the company's concrete activities sharpens the viewer's ability to see knowledge in each situation. Gradually, understanding initiatives leads to the development of the company's knowledge narrative, which is the most difficult part of the process. Step by step the company builds its knowledge management up.

The most important part of the process is to be open for surprises and new insights. If the work is based on a previously set understanding of the company's knowledge management, there is a risk that this will prevent a considerable part of the potential gain that working with intellectual capital statements can realise.

Chapter 2: Initiatives

Initiatives are actions. Somebody does something about knowledge resources. Someone is sent on a training course. A pc is bought. New people are hired. Dialogues with customers are started. A company can also invest in process developing, hiring new employees to change the company's competency profile or setting up an intranet. In other words, there are very many different types of initiatives. The list below gives some examples and there is a more exhaustive list of possible initiatives in appendix 4.

Examples of initiatives

- Establish educational activities in information technology
- Establish contact with educational institutions for recruitment purposes
- Set up an electronic library
- Establish project groups
- Introduce quality assurance systems
- Introduce open-plan offices
- Introduce financial and symbolic knowledge-sharing incentives to the employees
- Hold focus groups with users

Initiatives overview

The start point for tying down the company's knowledge management is an overview of existing initiatives and objectives with respect to knowledge resources. The *help table* below can contribute to the development of an overview. See table 1. The table is quite large, but is intended only to be used as memory jogger to help you get started. The company may not have enough material to fill all the fields. In this case, you should consider whether key knowledge is missing and should be developed.

Table 1 has two status columns and two evaluation columns. Through answering the status questions you produce a description and a map of existing initiatives and objectives. Answering questions in the evaluation fields gives an insight into how initiatives work or are imagined to work. The aim is to find out why an initiative is important, how it makes the company 'wiser' or 'more competent', and whether it is sufficiently ambitious. In this way, the company's manage-

ment challenges and knowledge management ambitions are exposed. It is these that are given as the reasons why an initiative is relevant or an objective is sufficient.

Filling in the help table provides an overview of:

- Existing initiatives and objectives
- How initiatives and objectives work for the company and whether some objectives are not ambitious enough
- A growing understanding of how the company's management challenges and knowledge narrative might look

The table probably cannot be completely filled in straight away. This is not important, as you can go back to it several times later in the process, even when working with management challenges and the knowledge narrative.

The help table is based on four types of knowledge resources. Employees, customers, processes and technology. Processes and technology have however been further subdivided to make it easier to work creatively with finding the right initiatives.

Processes are, in the help table, split into business processes and knowledge processes. Business processes are the company's methods for realising its products or services, whilst knowledge processes are about the company's knowledge sharing and knowledge accumulation.

The technology resource category is also divided into two. Production technology is the technology used to manufacture the company's products or services, and knowledge infrastructure is about the mechanisms for building knowledge in the intranet and databases etc.

The help table is to be used to collect and structure material for the intellectual capital statement. It consists of initiatives and objectives, either existing or future. If the initiative is to train employees, these should be registered and the objective of the initiative should be added. You can then describe how employee training helps the company be better equipped and evaluate whether there are grounds for increasing or reducing initiatives in this area. The same procedure can be used for the other initiatives.

In some areas there are likely to be a number of activities without any clearly defined objectives. In other areas, there may be objectives but no clearly defined initiatives. The table exposes this and in this way gradually pins down what knowledge management in the company is about.

This work is ultimately about establishing whether the company's actions and objectives are viable. To achieve this, it is particularly important to assess how they work and whether they work well enough.

Sometimes initiatives are in line with current or desired objectives, but not always. It is therefore sometimes necessary to remove initiatives from the help table and insert others to replace them. Sometimes objectives are shown to be unsuitable. It may become clear that they are in conflict with each other and therefore have to be adjusted. Help with objective adjustment is the subject of the next chapter, which deals with management challenges.

To illustrate how it works, table 2 has been filled in with initiatives from the consultancy Ementor. The company has, on the understandable grounds of business considerations, not wanted to publish its assessment of the objectives' ambition level. The right column has therefore been removed.

Table 1: Help table for the definition of knowledge management initiatives and objectives

Knowledge resources	Existing actions and initiatives	Existing objectives and strategies	Assessment of initiative effect	Assessment of objective ambition level
Customers/users	What actions and initiatives have been launched: • To ensure the right customer portfolio? • To upgrade customer relations and customer competencies? • To promote customer satisfaction?	What objectives exist for: • Customer mix? • Upgrading customer relations and customer competencies? • Customer satisfaction?	• How do the company's initiatives contribute to creating something of value to its users?	• Are the existing objectives sufficiently ambitious? • Are some initiatives more critical to success than others? • Do we need to develop new types of actions?
Employees	What actions and initiatives have been launched: • To ensure the right employee portfolio? • To train and upgrade employees? • To promote employee satisfaction?	What objectives exist for: • Employee mix? • Training and upgrading employees? • Employee satisfaction?	• How do initiatives affect em ployee contribution to creating a better company?	• Are the existing objectives sufficiently ambitious? • Are some initiatives more critical to success than others? • Do we need to develop new types of actions?
Processes Business processes	What actions and initiatives have been launched: • To document and rationalise business processes?	What objectives exist for: • Documentation and rationalisation of business processes?	• How does the company create initiatives to develop the value of its business processes?	• Are the existing objectives sufficiently ambitious? • Are some initiatives more critical to success than others? • Do we need to develop new types of intitiatives?
Knowledge processes	What actions and initiatives have been launched: • To document and rationalise knowledge processes?	What objectives exist for: • Documentation and rationalisation of knowledge processes?	• How does the company create initiatives to develop the value of its knowledge processes?	• Are the existing objectives sufficiently ambitious? • Are some initiatives more critical to success than others? • Do we need to develop new types of initiatives?
Technology Production technology	What actions and initiatives have been launched: • To ensure the right production technology portfolio? • To upgrade existing production technologies?	What objectives exist for: • Ensuring the right portfolio of production technologies? • Upgrading existing production technologies?	• How do initiatives to develop the company's production technologies make the company stronger?	• Are the existing objectives sufficiently ambitious? • Are some initiatives more critical to success than others? • Do we need to develop new types of initiatives?
Knowledge / infrastructure	What actions and initiatives have been launched: • To ensure the right knowledge infrastructure? • To upgrade existing knowledge infrastructure?	What objectives exist for: • Ensuring the right knowledge infrastructure? • Upgrading of existing knowledge infrastructure?	• How do initiatives to develop the company's knowledge infrastructure enable the company to share knowledge better?	• Are the existing objectives sufficiently ambitious? • Are some initiatives more critical to success than others? • Do we need to develop new types of initiatives?
	Status		Assessment	

Help table

The purpose of the help table is to increase creativity in working with initiatives. Even though the table is comprehensive, the company can have initiatives that do not fit into any of the categories. There are other types of knowledge resources than the four mentioned. For example, some companies have suppliers or institutions of higher education as important types of knowledge resources. In these cases the company has to add the extra types in the first column under knowledge resources.

Table 2: Help table applied to Ementor

Knowledge resources	Existing actions and initiatives	Existing objectives and strategies	Assessment of initiative effect

Customers/users	What actions and initiatives have been launched:
	• To ensure the right customer portfolio?
	  • Development sales and marketing strategy
	  • Development of Target Account plans
	• To upgrade customer relations and customer competencies?
	  • Key Account programmes
	• To promote customer satisfaction?
	  • Annual customer satisfaction surveys.
		What objectives exist:
		• For the customer mix?
		  • Objectives for turnover by volume of account (annual turnover per account: in DKK <1/2m; 1/2-1m; 1-5 m; 5-10m; >10m)
		  • Objectives for individual account in proportion to turnover (largest account; top 3 accounts; top 5 accounts; top 10 accounts; top 20 accounts)
		  • Objectives for customer relation life times (customer less than1 year; customer for 1 to 2 years; customer for 3 years or more)
		• For upgrading of customer relations and customer competencies?
		  • Objectives for KAM activity (key account management)
		• For customer satisfaction?
		  • 15 different objectives for customer satisfaction in customer satisfaction survey
		  • 5 objectives for customer assessments in project evaluations (on projects comprised by ISO certification).
			How do the company's actions contribute to creating something of value for its users?
			• Upgrading customer relations and customer competencies?
			  • Key Account programmes contribute to creating a fundamental understanding of customer situations and challenges
			• Customer satisfaction?
			  • The annual customer satisfaction surveys ensure an up-to-date insight into customer needs and preferences and therefore a better opportunity for tailoring solutions and addressing the issues that create the most value.

Employees	What actions and initiatives have been launched:
	• To ensure the right employee portfolio?
	  • Active, defined-benefit recruitment strategy
	• To train and upgrade employees?
	  • Career planning
	  • Full Year review, Mid Year review
	  • Ongoing supplementary training (internal and external courses)
	  • Internal cross-company industry-related networks
	  • Project manager forum (internal professional network)
	• To promote employee satisfaction?
	  • People Forum (employee forum focusing on employee influence on HR related elements in daily work context)
	  • Social activities
	  • Annual employee satisfaction surveys.
		What objectives exist:
		• For the employee mix?
		  • Objective for educational mix
		  • Objective for age mix
		  • Objective for seniority
		  • Objective for employee job experience
		• For training and upgrading of employees?
		  • Objective for proportion of employees with project management experience
		  • Objective for number of hours in supplementary training
		  • Objective for educational costs
		• For employee satisfaction?
		  • 33 different objectives for employee satisfaction.
			How do the initiatives that affect employees contribute to creating a better company?
			• Training and upgrading of employees?
			  • Actions are to ensure that the wishes of the individual and the company's need for competencies are met
			• Employee satisfaction?
			  • Actions aim to create happier and better motivated employees who actively participate in developing solutions and creating value for customers.

Knowledge resources	Existing actions and initiatives	Existing objectives and strategies	Assessment of initiative effect

Processes
 	
Business processes
	What actions and initiatives have been launched:
	• To document and rationalise business processes?
	  • Documentation of project management process
	  • Documentation of sales processes
	  • Documentation of budgeting and controlling process
	  • Service Forum (employee forum focusing on development of delivery process)
	  • Market organisation (department focusing on major strategic sales and optimisation of sales processes)
	  • Ementor Quality Management (ISO certified quality assurance programme)
	  • IT panel (panel of 100 IT managers).
		What objectives exist:
		• For the documentation and rationalisation of business processes?
		  • A plan for rationalisation and development of selected business processes.
			How does the company create initiatives to develop the value of its business processes?
			• Documentation and rationalisation of business processes?
			  • Actions have the purposes of ensuring as few errors as possible and the optimal quality in Ementor's processes so that resources can be focused on the activities supplying solutions to customers.

Knowledge processes	What actions and initiatives have been launched:
	• To document and rationalise knowledge processes?
	  • Documentation of knowledge process
	  • Knowledge Forum (employee forum focusing on development of internal knowledge sharing and knowledge development).
		What objectives exist:
		• For ensuring the documentation and rationalisation of knowledge processes?
		  • A plan for rationalisation of compiling and storage of knowledge objects (prepared as part of annual business plans).
			How does the company create actions to develop the value of its knowledge processes?
			• Documentation and rationalisation of knowledge processes?
			  • Actions have the purposes of ensuring the best possible accumulation and communication of experience and knowledge to avoid repetitive errors and to save time.

Technology
 	
Production technology
	What actions and initiatives have been launched:
	• To ensure the right portfolio of production technologies?
	  • (Ementor has no physical production, and production technologies thus do not constitute a central knowledge resource)
	• To upgade existing production technologies?
	  • (Ementor has no physical production, and production technologies thus do not constitute a central knowledge resource).
		What objectives exist:
		• For ensuring the right porttfolio of production technologies?
		  • (Ementor has no physical production, and production technologies thus do not constitute a central knowledge resource)
		• For upgrading of existing production technologies?
		  • (Ementor has no physical production, and production technologies thus do not constitute a central knowledge resource).
			How do actions to develop the company's production technologies make the company stronger?
			• (Ementor has no physical production, and production technologies thus do not constitute a central knowledge resource).

Knowledge infrastructure	What actions and initiatives have been launched:
	• To ensure the right knowledge infrastructure?
	  • Heavy current IT investments
	  • Current updating of knowledge databases
	• To upgrade the existing knowledge infrastructure?
	  • Ongoing development of methodology
	  • Ongoing development of Ementor's business portal: EmIntra.
		What objectives exist:
		• For ensuring the right knowledge infrastructure?
		  • Plans for expansion of knowledge and project databases (prepared as part of annual business plans)
		• For upgrading the existing knowledge infrastructure?
		  • Plans for the development of Ementor's business portal (prepared as part of annual business plans).
			How do actions to develop the company's knowledge infrastructure enable the company to share knowledge better?
			• Ensuring and upgrading the right knowledge infrastructure?
			  • Structuring and optimising our knowledge databases ensure that knowledge and experience are easily accessible to all Ementor employees in the solution of new assignments.

The help table in table 2 shows Ementor's initiatives and objectives in a late phase of working with the intellectual capital statement. Some of the fields have many elements, others have hardly any. It is not a requirement that all fields are to be filled, but it may be worthwhile to consider the causes behind fields being left empty. Ementor could, for example, choose to use the table to consider whether the questionnaire based knowledge of customer satisfaction is sufficient for developing a closer dialogue with customers. A new objective could therefore have been to set up real user groups or similar. Note that the help table material is not a conclusion. It is a working document that can help identify relevant activities and objectives.

Brief guide to identifying relevant initiatives

At first glance, the table can be difficult to grasp. But it is just a means of helping you systematically answer three central questions that can help the company identify its relevant initiatives (see the box with 'help questions').

Help questions to identify the company's initiatives

- What are the existing and potential initiatives and objectives that relate to the company's knowledge management?
  ('Existing actions and initiatives' and 'Existing objectives and strategies' in table 1)
- How do initiatives and objectives work?
  ('Assessment of initiative effect' in table 1)
- What initiatives can be used to boost the company's knowledge management?
  ('Assessment of objective ambition level' in table 1)
  - Use existing initiatives to 'think broadly' about what knowledge management should consist of
  - Continuously consider whether anything has been omitted, as it did not seem relevant at first
  - Use the produced material creatively to gradually find new possible initiatives
  - Check whether actions match issues or challenges

A *relevant* initiative is a response to a current or potential problem. It must be relevant and it must be viable. This means that it must be possible to delegate the initiative to a person who was not involved in its development and that person must be able to understand what the initiative is about.

The list of initiatives may be long and vary from one company to the next. The number of initiatives in companies varies widely, but usually there are fifteen or more. Ementor has more than 25 initiatives. It is in all cases particularly important to check initiatives' relevance. The following questions should be posed time and time again:

- How does this initiative help to solve a problem?
- What drives this initiative, as opposed to other initiatives?

The text box gives an example of how initiatives can be included in a strategy for knowledge management aimed at radical company change.

Example: Actions at Frederiksberg Forsyning (utility company)

Frederiksberg Forsyning wants to be responsible for an efficient and reliable supply of district heating, electricity, gas and water including drainage of waste water, to around 60,000 inhabitants of Frederiksberg municipality. The company has identified the following initiatives, the reasons behind them also being given:

- Attract employees with cross-discipline educations to make project-organisation possible
- Develop and hold job satisfaction and progress reviews so that employees remain motivated to participate in the restructuring process
- Further develop targeted educational and development initiatives for enabling personnel to master new technologies and work processes
- Update and document education and competencies to maintain an overview of employee skills
- Conduct discussions forums with employees and customers to generate new ideas for interesting and relevant services
- Establish cross-organisational co-operation groups to secure a business behaviour among many employees

Through these initiatives, Frederiksberg Forsyning will change from being 'a hierarchic municipal utility service' to become a project-oriented company operating within market conditions and focused on customers. This change process consists of initiatives to recruit employees with cross-discipline educations and initiatives to, through training and progress reviews, develop employees' business behaviour. In addition, initiatives include the documentation and development of work methods in a number of technical, organisational and financial areas.

Check initiatives

How is it possible to know whether a list of initiatives is good? Go through the check questions below. If you answer yes to all questions, the list is a good one. Please note that it is only usually possible to answer yes to all questions if all the other elements in the intellectual capital statement have been gone through. This part of the intellectual capital statement does not need to be completed before moving on to the others. A satisfactory list of initiatives will not bring the intellectual capital statement to its close. There are three more elements. They will be considered in the three chapters to follow.

Check questions for initiatives

- Are the initiatives relevant to a problem?
- Do you know how each initiative works?
- Have the initiatives been defined as a set of actions?
- Does every initiative have a (potential) manager?
- Have the initiatives been assigned a priority?

Chapter 3: Management Challenges

Management challenges help to organise the company's initiatives and orient them towards the company's knowledge management. Initiatives are individual, separate activities whilst management challenges bring these initiatives together and show how they are interrelated and how they therefore are to act together or be developed in relation to each other. See also appendix 4.

Overview of general management challenges

- Recruitment, retention and development of employees and competencies
- Development of the company's processes
- Mixing of knowledge and competencies across the company
- Visibility in the market
- Building partnerships with customers
- Accumulating insight into users' needs
- The development of access to / supply of external knowledge resources

Development of management challenges

The help table guides the process toward the management challenges, as it is based on the assessment fields. It looks at how initiatives work, which need to be strengthened and for which ambitions must be increased. Using this approach, you can see how initiatives are interrelated and what is needed for an initiative work to work well.

Interrelationships between initiatives

The management challenges start point is therefore that some initiatives are critical and control over them must be obtained. The company's need for recruiting employees may seem to be the only challenge. But after employees are hired, the company must ensure that they understand the company, that they get to know the company's customers and users and that they learn how to use its technology and understand its communication. It is important to collect these initiatives together into broader management challenges because this forces the company to think of the initiatives as part of a whole, where they are dependent on other initiatives. The company has to be able to define how initiatives are interrelated or how initiatives contribute to increasing the value of other initiatives.

Initiatives are therefore brought together and put into an easily understood framework by looking at the common features of a number of initiatives. For example, initiatives such as advertising, participating in job fairs and hiring employees with a particular professional background can be called 'recruitment of employees'. Initiatives such as describing and formalising best practices, project management training and development of knowledge sharing can be called 'development of the company's knowledge management processes'.

These examples are only intended to inspire. A company's management challenges must fit its particular situation. For example, 'recruitment of qualified workers' might be formulated as 'recruitment of experienced management consultants' in some consultancies, whilst other consultancies may need 'recruitment of highly specialised employees'. Each management challenge can, in principle, be handled by several initiatives. Recruitment of employees can take place through job advertisements, through company representatives at institutions of higher education or through corporate image. In this way, each management challenge is an umbrella for a series of different initiatives.

Each management challenge is based on a number of initiatives. Once formulated, it can help develop even more initiative proposals, because it helps define initiative type, which can be an inspiration to identify more potential initiatives. All these initiatives ultimately work to create, develop and apply the company's knowledge resources.

Three types of interrelated management challenges

Management challenges are the point around which the company's knowledge management revolves. When management challenges are developed, this also shows how initiatives are expected to interact and to create value. Each company has its own characteristics, but three general types can be identified:

1) The company's most important knowledge lies in its information systems such as the intranet and shared databases. Knowledge laid down in procedures, processes, work methods and tools is the heart of the company, as it is the way the company organises the supply of its products or services even though this knowledge is not necessarily described in every detail. The employees' creativity is important, but it takes a great deal to cut across established procedures as it can be doubtful whether products or services can be co-ordinated across time and space. This creates two general management challenges.
   - Formalising knowledge in information systems
   - Establishing procedures for the supply of the company's products or services.

2) The company's most important knowledge lies in the co-operation between employees. Creativity arises through being together, and project organisation is often an important source of knowledge exchange, not only among different types of employees, but also with external suppliers. Customers could also be included and help find solutions to problems. The two general management challenges here are:
   - Developing organisation principles and incentive systems
   - Using brainstorming methods and idea development based on pragmatic problem-solving criteria.

3) The company's most important knowledge lies in the individual expert or group of experts. Expert knowledge is to be used to create solutions to technically complex problems demanding a deep insight and analytical skills. The two essential management challenges here are:
   - Developing deep, specialised expert knowledge
   - Determining problem-solutions based on technical criteria.

These three approaches to creating different types of initiatives are general and it is unlikely they will be found in their purest form. The typology does however illustrate that the composition of initiatives also determines how knowledge makes the company work. Odense Customs and Tax Region has a combination of management challenges that draw elements from all three types, probably adopting the third type of expert knowledge in type 3 as a basis.

Example: Management challenges in Odense Customs and Tax Region

Odense Customs and Tax Region's management challenges are about making company assessment procedures more predictable and through this achieving correct tax assessments. A multiple pronged strategy approach has been used:

- Appointment of more experts with legal and accounting backgrounds (recruitment and retention of employees)
- Setting up an IT-based system to compile best practices in applying rules (development of processes)
- Establishing knowledge sharing by ensuring employees get to know each other and use each other as sparring partners (development of processes).

Brief guide to developing management challenges

Table 1, the help table can be a good source of inspiration to develop the company's management challenges. Initiatives that had already been started, or were desired started, are described here. These initiatives should be brought together in the management challenges.

Filling in the assessment fields of the table could also be helpful. The reasons given for that an initiative is relevant or an objective is sufficient are often based on an underlying understanding of the company's management challenges.

Help questions to identify the company's management challenges

Based on the description and assessment of the company's initiatives in the help table, one can through asking oneself two closely related questions, identify the management challenges:

A. How are initiatives interrelated?
B. Do any initiatives need to be strengthened?

These questions can be subdivided as follows:

A. Define the interrelationship between initiatives.
   - Which initiatives work on the same problem or challenge?
   - Can the problem or challenge be handled better through supplementing initiatives that have not already been started in the company?
     Is the problem or challenge more extensive than assumed at first?

B. Assess the impact of initiatives
   - Do some initiatives fail to have effect because they are not sufficiently worked on?
     Is the problem or challenge that the initiative addresses more extensive than assumed at first?
   - Are some initiatives overdeveloped with respect to the size of the problem or challenge?
     How large is the problem or the challenge that the initiative targets?

A. Interrelationships between initiatives

Companies of course may want to create initiatives that develop all the company's knowledge resources at the same time. However, in addition to being costly, little will be achieved, for two reasons.

Firstly, the development of some initiatives can be more crucial than others. If, for example, new IT equipment has been installed, employee training in the use of this equipment is more important that further investment in the IT area. Or, if the company has acquired a new type of user that demands different competencies than those already found in the company, recruitment becomes a critical problem. The development of knowledge resources also requires a prioritisation of what limits company development.

Secondly, it is difficult to work with more than three to five central management challenges. There is a risk of loosing the overview and of it becoming difficult to explain how knowledge resources are important to the company. To prioritise the relevant management challenges, answers to the questions from the above guide can be used to find out how initiatives are interrelated, how they complement each other or what is missing in the general picture of relevant initiatives.

B. Initiative strength and relevance

For every initiative, the company has to decide whether they are to be developed, maintained at their present level or phased out. To be able to find this out, it must be possible to say whether each has a positive, poor or negative effect in the context in which they operate.

So much can have been invested in formal education that further investment in education at a given point can be a waste of time, because it could be more useful to ensure that the individuals can use the education they have received in their jobs. It is also clear that training activities should not only be maintained but increased in situations where a company undergoes major technological changes in production processes. The point is that the initiatives necessary to work with the management challenges change over time. One initiative often has to be replaced by another initiative at some point in time, if the full benefit of the initiative is to be realised.

These issues can be evaluated based on two main questions.

- *Effect.* Do the company's initiatives to develop its knowledge resources have any effect? Is employee satisfaction and productivity at acceptable levels? Will the customer buy the company's product or service, and does it work well for the user? Are the company's processes characterised by good quality, and is the company's technology effectively applied?

- *Ambition level.* Is the company doing enough to support and develop its knowledge resources? Are the investments in employee development, customer relations, product development, process development and technological development appropriate and adequate?

Check the management challenges

When the management challenge analysis has been completed, it must be possible to answer yes to the questions below. Note that it may only be possible to answer yes to all questions when all the other elements in the analysis of the company's management challenges have been gone through. It is therefore not necessary to have completed this section before moving on to the others. Answering the check questions often raises a number of new questions that it may be relevant to include in the analysis of initiatives and the knowledge narrative.

However, even when reasonable answers have been found to all questions, the intellectual capital statement is not completed. A knowledge narrative and some indicators are still lacking. The next two chapters will discuss these.

Check questions for management challenges

- Do the management challenges show the interrelationships between the company's initiatives?
- Are the management challenges based on an evaluation of the strength and relevance of initiatives?
- Are management challenges few enough to allow an overview and do they form a whole relative to the company's type and character? (generally three to five management challenges)
- Are the management challenges relatively long-term?
- Is there an interrelationship between the management challenges?
- Have management challenges been prioritised?
- Can a colleague understand them?

Chapter 4: Knowledge Narrative

The knowledge narrative's purpose is to explain the company's knowledge management ambition and show how the company intends to realise it. The ambition will always be to create use value for somebody through using the company's knowledge resources.

Example: Knowledge narrative for Odense Customs and Tax Region

Odense Customs and Tax Region supplies reliable and systematic tax assessments to businesses. Through tax assessments, the business world experiences that all businesses are treated equally, because unfair competition is avoided. To achieve this, Odense Customs and Tax Region must have access to motivated and skilled employees, have a well-developed tax issue database and have a very helpful culture. This should make it possible to share experiences gained and to add relevant competencies.

The example shows that the knowledge narrative is a coherent presentation of how the company uses its knowledge resources. In the following, the three elements included in any knowledge narrative are described.

Brief guide to developing a knowledge narrative

A knowledge narrative is not an ordinary strategic objective, which normally consists of a number of objectives that are to be achieved. It is a narrative that generates an interrelated course of events, as the narrative elements are linked with words like 'because' and 'therefore'. The knowledge narrative tells how the company's knowledge resources can generate use value. It does this by describing how and why the company's ability (knowledge resources) relates to the user's needs (use value). If the company has already formulated a vision, the knowledge narrative can use this as a basis, adding knowledge resources to it. This will make it clear how the company is to be able to live up to its mission.

Help questions for the knowledge narrative

A. Identify use value(s)
B. Define knowledge resources
A+B. Connect them together by using 'because' and 'therefore' in a knowledge narrative

This process consists of the following elements, which will be described in more detail in the following paragraphs:

A. Use value
- What product or service does the company provide?
- Who is the user?
- How is the product or service used?
- How does the product or service benefit the user?

B. Knowledge resources
- What current or potential knowledge resources does the company need to create use value?
- How does or can knowledge resources contribute to the company's products or services?

A+B. Knowledge narrative
- How are use value and knowledge resources interrelated, i.e. how does knowledge 'work' in the company?
- Explain this in a reasoned and coherent narrative.

A. Use value

The company's products or services are used by one or more persons or companies. Products or services are very important to the intellectual capital statement, because they define what the company must be able to do for one or more users. The value that the product or service generates for the user helps define how the company should develop its knowledge resources. This value is called use value in the following.

The use value is about the user's use of the company's product or service. Not only the user's access to the product or service but also how it works are in focus. The use value is not a question of whether the product or service is in demand, but about how it works for the user.

How then is it possible to find out what kind of use value the user receives?

Four questions can lead to the answer:

1. **What product or service does the company provide?**
2. **Who is the user?**
3. **How is the product or service used?**
4. **How does the product or service benefit the user?**

1. What product or service does the company provide?

The use value becomes apparent only when based on the product or service.

Companies can have one, few or many products or services, and the formulated use value should ideally cover all products or services, even though this may be difficult. Some companies have very different products or services, which are supplied to many different customers and with very different needs. In cases such as these there are two alternatives.

You must decide which product or service this is to be based on. As a general rule, the type of product or service should be the one that is particularly important to the company's identity and image, so that the product or service chosen reflects the company's self-image as well as possible.

Alternatively, each product or service can be analysed separately. This may the best solution if the products or services are based on widely different knowledge resources.

Example: Products and services of the Danish Medicines Agency

The Danish Medicines Agency supplies many different types of products and services. Among them are licences and certificates to pharmaceutical companies and importers, processing applications for reimbursement from pharmaceutics users, and the approval and supervision of sales outlets. The main service is approvals and the main product is certificates for companies. The analysis of use value therefore will use this product and service as its starting point.

2. Who is the user?

The user is the person or entity that uses the product or service. It is these persons or entities that the company must adapt its knowledge resources to. The user is not necessarily the same as the customer who pays for the product or service. The customer and user may be the same, but if they are not, knowledge resources must be adapted to the user.

A company can have several types of users. This means that its knowledge resources should be created and developed according to different strategies, in principle one for each type of user. For each type of user the following questions must be answered: 'How do my existing knowledge resources help me create a product or service with a high use value?' and 'What knowledge resources are required for the company to manufacture an even better product or service?'

When users are completely different

In some companies, very different sets of knowledge resources have to be built up to satisfy very different users. This applies, for example, to some government agencies where the user can be:

- Ministerial departments that demand that the agency has competencies that can enable the department to work as a secretariat to the minister.
- Citizens demanding that the agency can supply advisory services to individuals.

Private companies can have similar situations where products or services supplied to widely different users require completely different types and combinations of knowledge resources.

Knowledge of the relevant user's needs and demands is the company's guide to what it should be able to achieve with its knowledge resources.

Two examples of users

The Danish Medicines Agency has several potential users. The two most important user groups are the applicant and the individual using the medicine. Further analysis of these user groups is carried out in parallel.

Aarhus based Arkitema has many users of their architectural services. They are not part of a chain but they use services in parallel. Most users are collective units such as owners' consultants and consulting engineers. But there are also individuals such as the owner and the building's users. Arkitema has to therefore adapt its knowledge resources to meet the needs of all these users.

3. How is the product or service used?

It is important to know how the user actually uses the product or service. Are there special conditions that need to be taken into consideration, that affect use value? Describing the usage situation makes it clearer which values the product or service can supply the user with. It is simple to determine whether the product or service is used every day or only in special or critical situations, or if the user must have special skills to be able to use the product or service.

Three examples of usage

Nord Data supplies IT supported logistics systems to shops. The product is used 24 hours a day.

Byggeplandata offers specialist consultancy services to construction cases. The service is used remotely as most users (owners) do not come into contact with Byggeplandata if everything goes according to plan.

Hvalsø Pharmacy's users use the service (treatment advice) in emergency situations, where the service has to be supplied 'here and now'. The service is used immediately the need arises, but the pharmacy can never know when this will be.

4. How does the product or service benefit the user?

The answer to this question leads to use value, i.e. the benefit the user receives from using the product or service. There can be many types of uses. The product or service can be used in private, work related or professional contexts. The product or service could be used to improve co-operation between two or more parties or could be used to increase the user's status and position in society.

Three examples of use value

Byggeplandata's use value is that the user (owner) can delegate responsibility during the construction process and can at the same time arrive at the right decisions in a complex process.

The consultancy Ementor's users experience that innovative changes in business critical processes and systems are carried out more reliably and with greater value, because the consulting services generate insight and an overview in a complex daily working life.

Nord Data's users experience that they can fully concentrate on understanding and serving their customers, because logistics helps them answer customer requests and demands quickly and accurately.

These four use value questions can give an overview of which use values are actually being supplied to whom. Experience shows that use value gradually becomes visible when more and more attention is systematically focused on what the product or service consists of and why it is important to some. In this way, objective products or services can be gradually translated into the *subjective needs that make the user want them.* When the use value is really known, you then know how the product or service operates or can operate, when it operates best. And it is this that is necessary if the company's ambition of creating use value for some by means of the company's knowledge resources, is to be lived up to.

B. Knowledge resources

Knowledge resources and products or services are interrelated, because knowledge resources are a part of the basis for creating the product or service. But as products or services can be produced in several ways, the company has to choose how knowledge resources and the product or service are to be linked together.

The following two questions could be helpful in this.

1. **What knowledge resources does the company need?**
2. **How do knowledge resources contribute to the company's products or services?**

1. What knowledge resources does the company need?

This question is about which knowledge resources need to be available to enable the company to develop and produce the product or service? Here, the employee, customer, process and technology mix which is needed to create use value, should be focused on. It is not certain that all the knowledge resources needed are present in the company, but this process puts a focus on the knowledge resources that need to be brought into the company.

The help table (part 2, chapter 2, table 1), which also records current initiatives and objectives, can help find which knowledge resources the company needs. The initiatives and objectives already found within the company highlights many of the knowledge resources which the company considers to be important.

By taking up initiatives when developing the knowledge narrative, they can be linked not just to the company's local and immediate targets, but also to the company's wider objectives, formulated via use value. This can create a better basis for assessing whether the company is in possession of the right knowledge resources, which are the mix and strength of knowledge resources that allows the company to supply the product or service which creates use value.

Example:

Ementor is a consultancy that has identified the following knowledge resources, which includes the people and tools that can help implement innovative changes in business critical processes and systems in the customer's organisation.

- Employee competencies
- Method series (project management and delivery methods)
- Ementor Quality Management
- Tool boxes: the project manager's tool kit, account manager's tool kit, pursuit manager's tool kit, contract manager's tool kit
- Knowledge and project bases, sales support base
- Process documentation: Knowledge process, sales process, performance management and development process.

2. How do knowledge resources contribute to the company's products or services?

Knowledge resources are used to create the company's products or services. Through watching how this works, how it takes place in practice, you can find out how each resource is relevant and how they interact and adapt to each other. In other words, it is easier to understand *how* knowledge resources are important when their importance to the company's products or services is analysed. Ementor's tools for example show how the user can see Ementor as a company and not just as a group of people. See the example in the text box.

Example:

Ementor's various toolboxes are used to support the individual consultant in his or her work with the customer. The toolboxes ensure that customers receive the benefit of the company's total experience and not just of an individual consultant's service. The customer therefore cooperates with a company and not just with an individual.

Examining how knowledge resources work also reveals how they make a difference. Some knowledge resources are developed to increase employees' productivity. For example, in the setting up of IT based knowledge sharing through an intranet or similar. Other knowledge resources are built up so that their size and composition makes the company less vulnerable to losing some of them. This could for example be about hiring a critical mass of key personnel. Other knowledge resources could be built up to allow a user to make use of the company's services through self-service. For example Internet portals and other on-line services.

A+B. Knowledge narrative

Knowledge narratives bring together the analysis of use value and knowledge resources. They are tied together in one narrative where words like 'because' and 'therefore' are the linkages in the argument. There are of course many ways to join elements together. What is however important is that a *meaningful and credible interrelationship between knowledge resources, products or services and use value* is created.

The presentation work should make it possible to evaluate whether the company's objectives and resources have meaning. It should describe how the company is able to live up to its ambitions.

Such a knowledge narrative can have the following structure:

A possible model for the knowledge narrative

The company supplies *(product or service)* to *(users). (The user)* experiences that he is with this *(product or service) (better off),* because *(the product or service)* contributes to *(making several things possible)*. To be able to do this, the company must have access to *(a series of selected knowledge resources)* as a point around which the company's knowledge management revolves, because they make it possible to *(accumulate knowledge)*.

The knowledge narrative shows the link between the company's ambition and the associated knowledge resources. A knowledge narrative for the consultancy Ementor might look as follows, as it builds on tools that make the company more than a group of individuals:

Example: Ementor's knowledge narrative

Ementor supplies consultancy services for change processes based on business processes, organisation and IT for public and private companies. Service companies experience that this consultancy service gives more reliable and higher value innovative changes in business critical processes and systems. To be able to do this, Ementor must have access to highly specialised competencies covering the entire value chain, which is the point around which the company's knowledge management revolves, as it is this that makes it possible to form interdisciplinary teams.

Even if such a narrative is short, it explains:

- What the company does: change processes
- How it makes a difference: simplifies the future
- What types of knowledge resources are required: interdisciplinary teams.

The interdisciplinary team is Ementor's translation of a broad set of personal competencies and tools, which together represent a corporate identity, where a long list of skills can be joined together.

It is recommended to formulate a knowledge narrative at different stages while working with the intellectual capital statement. This will keep you focused on the whole and help you stay tuned in on the company's ambition

Check the knowledge narrative

To make sure the analysis is on the right track, you may wish to check the questions below. Answering yes to all questions means that the knowledge narrative is accomplished. However, you can only just answer yes to all the questions when you have worked your way through the other elements in the analysis of the company knowledge management. This part does not have to be completed before moving on to the next part.

The intellectual capital statement is not finished even if the intellectual statement model has been filled in. Indicators are still lacking. These will be dealt with in the next chapter.

Check questions for the knowledge narrative

- Are the products or services and its user(s) described?
- Is the difference that the company's product or service can provide a user with described (ambition)?
- Is how knowledge resources are a basis for producing the company's product or service described?
- Are the above descriptions meaningful to a colleague?

Chapter 5: Indicators

Indicators contain the intellectual capital statement figures. They allow intellectual capital statement to become a tool that can create insight and used in follow-ups and evaluations. Indicators allow management challenges and initiatives to be defined and formalised.

Examples of indicators

- Number of IT workers
- Number of co-operation agreements with universities and business schools
- Number of visits to the company's homepage
- Number of patents
- Number of training days per employee
- Proportion of the five biggest accounts to total turnover
- Number of complaints

There are more examples of indicators in Appendix 4.

Brief guide to identifying indicators

Indicators are pinned down by answering two questions.

Help questions for indicators

A. A. Which indicators can say something relevant about development in the company's initiatives and management challenges?
B. Can the indicators be translated into 'good figures' and be administered?

A. Indicators for initiatives and management challenges

Indicators have three functions with respect to the intellectual capital statement:

- *Definition.* They serve to define management challenges and initiatives
- *Assessment.* They make it possible to evaluate whether initiatives and management challenges are started and implemented, and if so, to what effect?
- *Reporting.* They are an important link in the design of the external intellectual capital statement.

Indicators

An indicator is a variable. A measurement is a numerical value of an indicator, and an objective is a desired level for this measurement.

Example:
Indicator: Hit rate
Calculated: (Number of tenders won /number of tenders) x 100
Measurement year 2002: 55 per cent
Objective year 2004: 75 per cent.

The first purpose, definition, is the most important one. Indicators specify activities. If indicators cannot be found that can follow up an initiative, the initiative is often defined in too general terms. For example, a management challenge can be formulated as 'the recruitment and retention of personnel'. But it is still general and has no real content until initiatives and indicators are defined. Initiatives tell whether it is recruitment or retention that is needed and also who is to be recruited or retained. Many software companies see management challenges as being, for example, recruitment or retention of highly skilled software engineers. The 'number of company presentations to computer science students' is therefore an indicator which defines the challenge and initiative.

The second purpose, assessment, is closely related to definition. Only when measuring initiatives such as exit interviews, mentor schemes or introduction courses will it be possible to assess whether initiatives have been started, implemented or have the desired effect. When indicators are added to knowledge management, it becomes visible and therefore can be evaluated. In other words, indicators are a condition for systematic knowledge management.

The third purpose of indicators is as the basis for reporting in the external intellectual capital statement. In the external report it will however be necessary to describe both management challenges and initiatives. Indicators in isolation do not communicate any meaning to the reader.

Indicators are generally made up of three types of figures:

- *Effects* such as quality, satisfaction and productivity
- *Activities* for developing knowledge resources, for example through performance reviews, supplementary training, process development or meetings with customers and users
- *Resource mix,* such as composition of education, major accounts and technology platform etc.

Indicators are in general linked to initiatives, but some follow up management challenges, usually effect figures.

An initiative such as supplementary training can be measured as 'the number of training days' and an initiative to increase IT usage can be measured as 'the number of IT training days'. The figures directly give the extent of the initiative related *activity*.

Effect and resource figures are however more loosely linked to initiatives, because they show process results and a cross section of the resource mix at a given point in time. The figures are sufficiently linked to one or more initiatives, but do not represent these initiatives *directly*. The 'recruitment' management challenge can be illustrated by, for example, the 'development of employee mix' over a period of time.

But this figure does not measure activity itself, i.e. the hours used publishing advertisements and conducting job interviews. The personnel mix before and after is calculated instead, which shows indirectly whether the recruitment initiative has been sufficient.

The same applies to a management challenge such as 'ensuring employee motivation'. The company can try to achieve this through training activities (expressed as training days). However, the training days figures alone do not reflect the initiative to motivate employees, but there is, hopefully, a relationship between the two.

B. The search for good figures

'The good figure' is an important aspect of an initiative. It is far from always possible to define or calculate an initiative using one indicator. Effect, activity and resource dimensions of an initiative can and must be recorded by different indicators.

But selecting figures for intellectual capital statements requires considerable discipline if the criticism raised against some intellectual capital statements, which is to a certain extent justifiable, is to be avoided. It is important that the figures should:

- Be relevant, and not only express figures that are already available
- Be credible, and not only selected to show the company in a positive light
- Be reliable, and not build on imprecise definitions or too little data.

The figures should therefore be carefully quality assured.

Quality assurance should in particular focus on the figures' relevance. Does it really relate to the initiatives for which it is the indicator? This is a question which relates to the figures' *anchoring in management.*

Quality assurance is also about to what extent *individual figures* are based on systematic basic data, so that it is financially and administratively possible to produce the figures in the future and therefore develop time series. This aspect relates to the figures' *anchoring in administration.*

The credibility of the intellectual capital statement is often based on the opportunities it gives the 'critical reader'. It is recommended to include figures illustrating a positive development as well as a negative development for a specific initiative or management challenge. The statement can therefore be interpreted and gives readers more opportunities to make independent assessments of the character and significance of the initiatives.

Check the indicators

Once the indicators have been constructed, the following check questions must be answered 'yes' to. In the work to find indicators, it may be necessary to reconsider a choice of initiative. The questions can only be replied to with a yes, when the other elements in the intellectual capital statement have been critically gone through one more time.

Check questions to indicators

- Do the figures relate to the initiatives, and can this interrelationship be commented on?
- Do the figures give a fair picture of the company's work with knowledge management?
- Are there both positive and negative figures?
- Is the figure relevant such that the necessary information is highlighted and the unnecessary is excluded?
- Is the figure reliable? Is the basic data coherent?
- Is the figure accessible in the company (or will it be)? Is it calculable? Can it be reported over time?

Part 3: External Intellectual Capital Statements

External intellectual capital statements are used to make knowledge resources visible and through this also to make visible an understanding of the company's strength and future potential. The statements can make it easier to attract new employees and to strengthen co-operation with customers. This part of the guideline deals with how to prepare external intellectual capital statements. The aim is to show how to write an intellectual capital statement that is inviting, lucid and credible.

The external intellectual capital statement communicates some of the main messages from the company's knowledge management analysis as reviewed in part 2 of this guideline. There are no formal layout rules for external intellectual capital statements, and those published so far show great variation. This means that sometimes it can be difficult to find out how intellectual capital statements should be read. One should therefore carefully consider how the company's external intellectual capital statement should be written. Part 3 of this guideline is designed to support such considerations.

Chapter 1 presents the concept behind the external intellectual capital statements and some fundamental considerations such as requirements, media and target groups.

Chapter 2 gives advice and examples of how to build up the external intellectual capital statement. The chapter ends with a checklist for the external intellectual capital statements text, figures and illustrations.

Chapter 1. Which External Capital Statement?

Through analysing the company's knowledge management, the company has acquired strategically important knowledge about its own development. In principle, it could stop the intellectual capital statement work right there, and some companies in fact do. The intellectual capital statement then becomes an internal management tool. However, most companies go one step further and publish parts of the analysis results.

An external intellectual capital statement can be used to communicate parts of the company's knowledge management to the world at large, to show its resources and so attract new employees, customers and suppliers. However, the question still remains, how should an external intellectual capital statement look to live up to these objectives?

First of all, the company needs to ask itself the following questions around the concept of preparing an external intellectual capital statement.

Help questions for external intellectual capital statements

- Who is the target group? What are the principal messages?
- Which media should be used? Is the intellectual capital statement to be printed separately or as part of the annual report?
- Do we know the formal requirements laid down in the Danish Financial Statements Act, which the company may be required to adhere to dependent upon its size?
- What level of resources in terms of staff and direct costs are we prepared to allocate to the project?
- (For companies who have previously published statements) How do we balance the desire to renew with the need for continuity in the intellectual capital statements?

Target group and messages

The target group, those who we want to read the statement, give the external intellectual capital statement a perspective. The choice of target group will influence the content of the external intellectual capital statement, because this will determine the three principal messages selected that the external intellectual capital statement will focus on. The target group does not affect the basic content of the intellectual capital statement, but it does influence the weighting of the analysis highlights, which document type is selected,

the choice of pictures and other illustrations and how the text is formulated. Both form and focus is dependent on whether the company is communicating with, for example, investors or students if their attention is to be attracted.

An evaluation must therefore be made of whether it is important to formulate an entire intellectual capital statement to get the message across. Some companies have a greater need for an image brochure, where parts of the knowledge management analysis are included, but where it is not necessary to use concepts and continuous columns of figures quite as intensively. An intellectual capital statement is for the reader who wants to spend time involving himself with its considerations and arguments.

Good advice on messages

Identify maximum three principal messages that the total intellectual capital statement is to communicate. For example, that the company is ready for privatisation and that it is a very attractive place to work. Check while writing and when completed that these messages come across clearly.

The media

An external intellectual capital statement can be a separate publication, a part of the company's annual report and/or an Internet based document. Choosing which depends on the target group and extent of the intellectual capital statement and on the financial resources available.

An external intellectual capital statement published in *an annual report*, often addresses the financial markets. There are rarely more than 6-10 pages available, and the intellectual capital statement has also to be integrated into the remainder of the annual report. This means that many of the elements of the intellectual capital statement can be placed elsewhere in the annual report, so that overlaps are removed and repetitions are avoided. If an external intellectual capital statement is a part of the annual report, it will save distribution costs, and more copies of the annual report will be ordered when it includes the intellectual capital statement.

'In a management report, you can't open your mouth without talking about knowledge, and the intellectual capital statement is the best way to communicate knowledge systematically. The intellectual capital statement should therefore be incorporated in the annual report.'

Niels-Jørgen Aagaard, Manager, Knowledge Management at COWI.

If financial analysts are the main target group for an intellectual capital statement, it would be a good idea to read 'Analysing Intellectual Capital Statements' published by the Danish Ministry of Science, Technology and Innovation at the same time as this guide.

A *paper based independent* intellectual capital statement is addressed to a wider target group and it can have greater variation with respect to messages and depth. It also *does not* need to be long. Around 12-16 pages including figures, tables and photographs should be enough. Publishing a separate paper based intellectual capital statement can be more expensive than integrating it into the annual report, but the scope for variety is greater.

'There must be room for being thorough whilst at the same time being brief and precise'.

Allan Corfitsen, Research and Development Manager of the Danish Maritime Authority

The *Internet based* intellectual capital statement can make it possible for a reader to put together information as needed. For example, the reader can analyse databases himself or herself or click through to the parts of the company's objectives, initiatives, mission statements, etc that he or she is particularly interested in. However, many people will find an Internet edition a more difficult

source than a paper based edition. Internet versions do not provide as good an overview, and they are often much less read than expected. The advantages with an Internet based intellectual capital statement are that it can be continuously updated and that it does not involve printing or distribution costs. If updating of the intellectual capital statement is not required or if the company does not want to give the reader interactive facilities, preparing an Internet edition makes little sense. A pdf version can however be prepared for downloading by interested readers.

'The Internet version of the KMD statement is published for absorption and analysis.'

Anders Rosbo, Communications Manager at KMD

'Even though users think that our Internet based environmental statement is great and impressive, I miss having it in my hand.'

Martin Porsgaard, Co-ordinator, Environment Manager at SAS

Requirements of the Danish Financial Statements Act

The Danish Financial Statements Act does not require companies or public institutions to prepare intellectual capital statements. However, the act from 2002 states that large private companies (in categories C and D) are to describe the company's knowledge resources in the annual report if these resources are of particular importance to the company's future earnings.

The Danish Financial Statement Act allows the majority of the description of the company's knowledge resources to be put into an intellectual capital statement that can be included in the annual report as a supplementary report. When a supplementary report is used, the board of directors and the management are to be responsible for that the intellectual capital statement provides a fair picture of the company. The information must be relevant, reliable and comply with fundamental statutory conditions. It is also a requirement that intellectual capital statements that are provided as supplementary reports are to be reported within the framework of generally accepted standards for intellectual capital statements.

There is no audit requirement for intellectual capital statements, but if a summary of the intellectual capital statement is incorporated in the annual report it becomes subject to the same audit requirements as the rest of the annual report.

Resource consumption

High levels of resources can be used in preparing an external intellectual capital statement, but this is not necessary. It depends on what the intellectual capital statement is to be used to achieve and who the target group is.

Resource consumption can, for example, be limited by

- considering whether 4 colour printing is necessary
- utilising the company's own creative resources for illustrations and layout
- putting the intellectual capital statement on the Internet in a pdf format to limit the number of copies printed and distribution costs

Changes in intellectual capital statements from year to year

A reader should be able to follow management challenges, key initiatives and indicators over several years to see whether and how the company achieves its objectives. Some degree of continuity is therefore important. Many indicators can be repeated year after year, and the knowledge narrative is also a stable element. Relevant changes should of course be made, but changes should be explained if credibility is to be maintained. An indicator that has been reported every year cannot be just removed because it doesn't show the company's initiatives in a favourable light.

'A new layout every year is important to maintain and increase interest'

Martin Porsgaard, Co-ordinator, Environment Manager at SAS

Chapter 2: Content of External Intellectual Capital Statements

An external intellectual capital statement only has effect where the target group wants to read it, where the group understands its content and believes its messages. It should therefore be appealing, interesting, understandable and above all credible to the targeted readers.

To ensure this, an intellectual capital statement should

- include relevant information and comments
- reflect reality for the company
- present correct numerical data
- reveal the methods used

As there are no formal rules for how an external intellectual capital statement should be structured, there is great opportunity and good reason to be creative. The layout of the intellectual capital statement sends important signals about the company's identity, which is part of its branding.

The 'standard layout' given in this chapter starts with the terms used throughout the guideline. If these terms are used in intellectual capital statements, it is a good idea to explain them in the text. Alternatively, an external intellectual capital statement can be written using the guideline terms which are then translated into words and expressions that are closer to the target group's experience or that the company already uses in its internal or external communication.

It is assumed in the following that the external intellectual capital statement is published as a separate document. The principles can, with a few adjustments, be transferred to an intellectual capital statement which can then be integrated into the company's annual report, see chapter 1.

A separate document of 12 to 16 pages can be structured as follows:

External intellectual capital statement structure

A. Annual report (around 1 page)
B. Company description (around 1 page)
C. Knowledge narrative (1-2 pages)
D. The intellectual capital statement model (1 page)
E. Management challenges including initiatives and indicators (6-10 pages)
F. Accounting policies (around 1 page)

A. Annual report

The report allows the management (and the board of directors) to explain the company's objectives, challenges and results with respect to knowledge resources. The report should be able to function as an independent document, as some readers only read this part of the external intellectual capital statement. Others use the report to evaluate the remaining contents of external intellectual capital statements.

Good annual report advice

Check that the annual report can function as an independent document, but that it still awakes readers' interest in the rest of the intellectual capital statement.

The company's situation is concerned with particular conditions relating to the company as a whole. For example, it may have merged with another company, or may be in the middle of changing from being state to privately owned or similar. This can be linked to a brief explanation why the company prepares an external intellectual capital statement. This is generally because the company wants to make its knowledge management visible.

A report generally contains the following elements:

- The company's situation and purpose behind the publication of an intellectual capital statement
- The company's key results from working with an intellectual capital statement
- The company's new objectives for knowledge management activities

Consider whether the reader needs a brief explanation of what an intellectual capital statement is.

When stating the *results from the company's work with knowledge management and intellectual capital statements*, the effects of and challenges to the company's knowledge management can also be mentioned.

B. Company profile

Not all readers of intellectual capital statements may know the company equally well. Therefore, it is often recommendable to give a *brief* profile of the company of up to one page.

A company profile generally contains the following information:

- The company's history
- The company's products or services
- The company's results
- Optional: The company's organisation

The company's products or services are briefly presented, stating who the customers in general are. Events in the company's history sometimes need to be explained for the current situation to be understood. This could for example be information on company set up, mergers, prices, awards, introduction of new management tools and similar. See, for example, figure 7 which shows 10 years of benchmarks for EFFECTIV Reklamebureau (advertising agency).

It is also relevant to know in general about the company's financial position and results.

Information about the *company's organisation and management* is included in the company description, to the extent necessary to understand the company. It could, for example, be in the form of an organisation chart or information on ownership structure etc.

Figure 7: Benchmarks in the history of EFFEKTIV Reklamebureau

EFFEKTIV Reklamebureau – first 10 years
1992 EFFECTIV is founded by two business graduates, with specialisations in advertising and graphic production
1995 Line extension with own in-house photographic studio
1996 Full-service advertising agency with consulting services in all media
1997 Dun & Bradstreet AAA rating and every year after this
1998 First nomination as a growth company by Danish newspaper Børsen
1999 Second nomination as a growth company, in-house repro with digital colour control
2000 Third nomination as a growth company, first with integrated web proofing
2001 Fourth nomination as a growth company, three new employee shareholders
2002 10-year anniversary in February and ready for another decade at the front…
www.effectiv.dk

Source: EFFECTIV Reklamebureau's intellectual capital statement 2001

C. Knowledge narrative

The knowledge narrative generated by analysis can be complex and when presented in an external intellectual capital statement, it is recommended that maximum three main messages are focused on. The elements of the knowledge narrative can, at the start, be used as a contents.

The knowledge narrative is concerned with the following:

- The company's products, services and users
- Use value
- Knowledge resources
- General explanation and description of management challenges

A description of the company's products, services and its users leads to use value, which is the core element of the analysis. This can be difficult to formulate in an easily accessible way in an external intellectual capital statement. Sometimes it is necessary to return to the analysis to see if use value and users are explained in the most appropriate way.

The use value is a transition to the company's knowledge resources, which are briefly presented. This leads to a summary of the company's central knowledge management challenges, which is good to include here because they conclude the knowledge narrative. It also strengthens the red line through the presentation, because this paragraph then leads the reader to a review of each of the management challenges.

Good advice on presentation in external intellectual capital statements

Check whether the text argues its points, i.e. explains and gives reasons by using 'therefore' and 'because'. To strike a balance, you should stick to the main points from the analysis but remember the most important arguments to ensure a red line through the narrative.

An intellectual capital statement should show and explain where the company is heading. But it must not be so 'future-oriented' that the company's employees or surroundings are unrecognisable. Representatives from relevant target groups could be asked to read through a draft intellectual capital statement to avoid this.

D: The intellectual capital statement model

The intellectual capital statement model gives the total overview from knowledge narrative to indicators. However, the complete model in the analysis is often too large and too complex to communicate effectively. It can be revised to make it easier to read and easier to gain an overview of. The analytical version of the model may also contain information that the company does not want published. See figure 8.

An overview will generally:

- Be one page only
- Use the guideline terms such as use value, management challenges etc.
- Avoid too many details and special language
- Be simpler than the intellectual capital statement, for example by presenting fewer initiatives, fewer indicators or by selecting two or three of the most important management challenges.

Figure 8: Intellectual capital statement - The Danish Maritime Authority

Which values does the Danish Maritime Authority create for its customers? (= Use value)	Challenges that enable the Authority to create value for its customers (= Management challenges)	What initiatives are required? (= Initiatives)	How do we measure this? (= Indicators)
• Shipping and assimilated industries: The Danish Maritime Authority pursues a policy that creates good framework conditions for the industry's ability to compete and for increased Danish employment	• The Authority is to be an IT based workplace using IT to support production and knowledge management internally and externally	• Train employees in the use of IT • Develop super user organisation • Develop and use system supporting knowledge management by being user-friendly and accessible to all • The Authority must use IT and particularly the Internet more extensively to share knowledge externally	• Time spent on IT training (Martha, DocuLive, pc driver's licence etc. • Number of super users • Time spent on training of super users • Number of employees with pc driver licence • Number of international callers on the website
• Seafarers and fishermen: The Danish Maritime Authority works for high levels of safety, health and qualifications • The minister: The Danish Maritime Authority ensures that the minister always receives an on-time qualified service	• The Authority is to co-operate with the industry and its organisations to create the best possible national and international framework and conditions	• Increased meeting activity frequency and information on the affected industry and its organisations • Partnerships • Participation in IMO council • Co-operation with other flag states • High success rate in serving the minister	• Meeting activities in national forums • Meeting activities in international forums • Participation in international co-operation projects • Meeting activities with the industry and its organisations • Minister service performance measures • Proportion of world tonnage • Number of Danish seafarers
	• The Authority must be able to retain and attract highly qualified labour and be an attractive workplace at all times	• Employee satisfaction survey • Identifying new methods for development of competencies • Development projects • Seminars • Recruitment • New, flexible wage and working time policies	• Results of employee satisfaction poll • Competency development activities • Number of employees who are active in experience groups/project groups externally • Evaluation of courses etc. • Staff turnover • Number of employees in the accommodating labour market

Source: The Danish Maritime Authority's intellectual capital statement 2001

E: Management challenges, initiatives and indicators

Each management challenge has its own paragraph in intellectual capital statements and includes the associated initiatives and indicators. The paragraph can be built up as follows:

- Description of management challenges and reasons
- *Performance.* Initiatives and achievements from the previous year, with objectives stated for referral
- *Initiatives.* Brief introduction of each initiative in the current year. Each presentation can be structured in the following way:
  - Reason for the initiative relative to the management challenge
  - Presentation of relevant indicators including development and objectives
  - Comments on indicators. How did the initiative develop, including an opinion on the development.
- *Conclusion.* After each management challenge has been reviewed, conclusions can be drawn on this year's objectives achieved and on next year's objectives and special initiatives.

F: Accounting policies

Accounting policies shows how figures are defined. A detailed description of accounting policies can be important to strengthen the credibility of an external intellectual capital statement. Such a description can consist of comments on the following issues:

- Which parts of the company are included in the intellectual capital statement?
- Which period does the intellectual capital statement cover?
- Where does the data come from (data source can also be stated beside indicators in the text)?
- How are measurements/surveys handled (by whom, in what way, how often)?
- How are the figures defined? This definition could be stated beside the figure in the text if this is important to its understanding.

Any verification can be carried out by an external auditor or other verifier, who checks that figures and text are in accordance with the auditing firm's guidelines. The company should consider whether external verification is important to the selected target group. It will generally be more important to 'professionals' than to 'ordinary' readers.

About verification

Some companies use auditors to verify their external intellectual capital statements to give them authority.

The verifier

- examines data, checking and documenting numerical values
- controls figure generation and reviews internal controls and procedures
- assesses the intellectual capital statement's anchoring in the company
- assesses whether the information in the intellectual capital statement is relevant and reliable

Check questions for the external intellectual capital statement

The remainder of this chapter takes up a number of commented questions that companies can use to check whether their external intellectual capital statements are coherent and give an overview, and whether text figures and illustrations are easy to understand.

The first priority is to check whether the intellectual capital statement reflects the company's real life situation. It should show the company's ambition, but always in a way that the company is recognisable in its present state. The intellectual capital statement will otherwise loose credibility.

The *interrelationship* between text, figures and illustrations must give a total picture of the company. The intellectual capital statement should not be allowed to develop into a patchwork of incoherent elements. This means a balanced presentation should be given of the portfolio of knowledge resources (what you have), initiatives (what is being done) and performance (what is being achieved).

It should also be easy to generate an *overview* of the external intellectual capital statement. Few readers read through the entire document, so it must be easy to pick out themes and points. Use a roadmap model, colours or similar to avoid the reader losing his way in the document.

Check questions

- Does the intellectual capital statement reflect the company's real life situation?
- Are the knowledge resources, initiatives and results properly linked?
- Does the intellectual capital statement give an overview of knowledge management?
- Are the selected principal messages being clearly communicated?

Figures in the intellectual capital statement

No figures, no statement. Figures cannot however speak for themselves. They must be brought into play by the text. The following check questions may help with this:

- *Are the figures commented on?*
  Figures can be commented on by, for example, adding smileys to quickly and easily show the degree of satisfaction with the figures relative to objectives or expectations. Tables should be placed so that figures and associated comments can be referred to at the same time.

- *Are the objectives for the figures relevant?*
  Objectives can be set up for every indicator using, for example, pointers, numbers or loose ideas etc. This will make it clearer where it is to be set in the next period.

- *Are accounting policies explained?*
  It must be clear how figures are calculated. Either by placing calculations next to the figure, if a detailed understanding is important. Or accounting policies can be assembled at the end of the document. Any changes from last year must be highlighted, and the consequence of the change must be commented on.

Some of the figures in intellectual capital statements are not tied directly to the knowledge narrative. These figures are background information acting as a general presentation of the company. Who we are? How do we grow? What types of customers do we have? etc. This background information contributes to presenting the company as a whole, and they are included in an external intellectual capital statement even though they do not directly give information on the selected management challenges and initiatives.

'Measurements are important, and there must be quite a few of them, otherwise the intellectual capital statement becomes nothing but sales talk.'

Frans Bjørn-Thygesen, Managing Director of EFFECTIV Reklamebureau

Background information also provides a basis for evaluating the management challenges and the initiatives' relevance and reasonableness. They can in this way contribute to placing the intellectual capital statement's narrative about the company's knowledge management into a relevant context.

Background information

- describes the company's employees and customers
- generally starts with the extent and composition of resources
- contributes to giving a generalised impression of the company's development

The text part of the intellectual capital statement

The text bears a significant part of the communication in an intellectual capital statement, and great care should be taken in its preparation. As a minimum, the text should be checked to ensure that it:

- *is understood by the target group*
  Try to avoid internal terms, contexts etc., in particular if the document is aimed at the public at large
- *is argumentative*
  Explain the choices made, and remember to tie the text together using 'because' and 'therefore'
- *is conclusive*
  Check that the text sums up and highlights its points
- *communicates the terms used*
  The terms used, for example 'knowledge narrative' and 'management challenges' etc. must be presented so that a reader who has no previous experience with these terms can understand them.

Illustrations for the intellectual capital statement

As with any other publication that aims to attract and retain the attention of a target group, the intellectual capital statement must be attractive. 16 pages of pure text is heavy reading. It is therefore usually advisable to include drawings, photographs and other illustrations in the intellectual capital statement. Not as decoration but to support the 'spirit' and messages in the intellectual capital statement.

The following check questions could be asked with respect to illustrations:

- Does the intellectual capital statement in its design, layout and use of illustrations match the company's other communications?
- Does the intellectual capital statement contain illustrations that show the company's life, atmosphere and identity? Do they show any products, co-operative forms, humour etc. and do these give the intellectual capital statement a personal appeal?
- Do the illustrations emphasise the message in the text and do pictures etc show the company in a light that matches the company's identity?
- Do the illustrations inspire the reader to read the remainder of the intellectual capital statement?

Good advice on illustrations

- Check that the illustrations support or supplement the messages in the text
- Do not use pictures of models. They signal anonymity, and usually the opposite is needed, namely identity.

Part 4. Work Process

This part of the guideline deals with the work process which leads to an intellectual capital statement. It deals with work organisation and resources and also how to ensure the right quality in the process. How can intellectual capital statements be anchored in the organisation? Who will drive the process forward in the development phase? Where in the organisation will the responsibility for intellectual capital statements be placed?

There is no standard procedure for working with the development of an intellectual capital statement. Companies have different ways of carrying out projects. But it is possible to indicate which relationships experienced companies consider to be beneficial when starting intellectual capital statement development. This is the aim of this the last part of the guideline.

Chapter 1. Organisation of the Intellectual Capital Statement Project

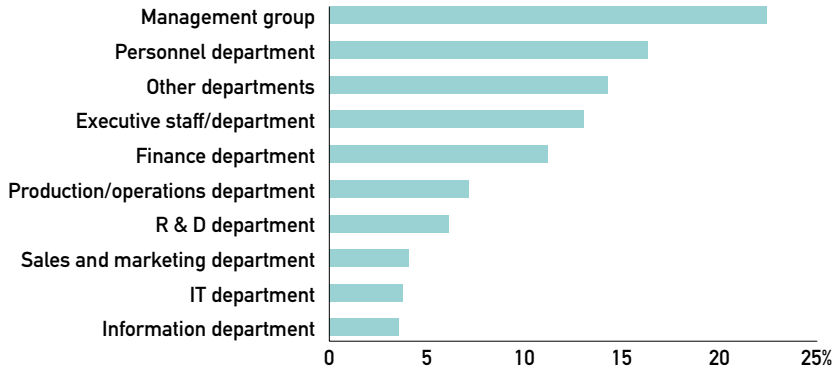
Having decided to start working with an intellectual capital statement, the company must quickly address two organisational issues:

- How should the project be organised in practice?
- How can the company ensure that it will become embedded in the organisation?

Project organisation and resources

Work with developing an intellectual capital statement is organised as a project. Usually a steering committee and a cross-disciplinary project group are responsible for producing an intellectual capital statement. It is important to the success of the project to involve people in the company who can make positive contributions to the work. A database should also be established to automate data capture. This can be achieved by using existing management systems/databases or by developing (electronic) questionnaires where answers to questions which ordinary information systems do not have, are collected, processed and presented automatically. The most important of all is that support for the knowledge management strategy can be created, which will form a foundation for working with intellectual capital statements.

Figure 9. Average mix of project groups



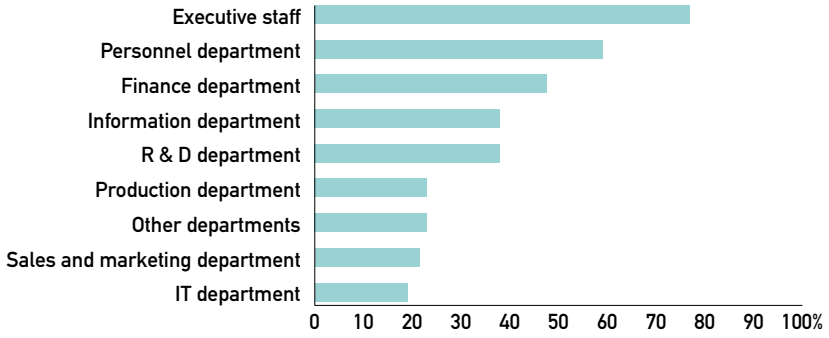
Source: Questionnaire survey for companies that have experience in working with intellectual capital statements

In most cases the project group is cross-disciplinary. Figure 9 shows the distribution of members in an average project. The manage-

ment group (including senior managers) is generally strongly represented in companies that are experienced in the development process. The foundation work is generally carried out by employees from the personnel and finance departments, but the management does not just stand on the sidelines. They are actively engaged in the work. The personnel department is generally involved, because a great deal of information on employees is available here. The finance department participates because it often has an overview of and access to the figures, but also because it prepares the company's annual report and accounts. It therefore has the capacity to deal with figures in a credible way.

Figure 10. Whose responsibility?

Proportion of companies where the above mentioned units have considerable responsibility in the preparation of intellectual capital statements



Source: Questionnaire survey among companies that have experience in working with intellectual capital statements

Figure 10 shows that the responsibility for preparing intellectual capital statements lies with the management and the personnel and finance departments. The other participants in the project take part as individuals with particular insight, who can inform and guide the personnel and finance departments in working with intellectual capital statements. It is very important that the project group has an overview of who is to be involved in the work, who can supply the resources, who should ensure access to the relevant information and who should be responsible for ensuring project progress. The project group often needs access to information that requires management approval.

There are great differences in the level of resources companies use on projects such as intellectual capital statements. Many companies have shown that they can complete their first intellectual capital statement using two or three man-months plus printing costs etc.

The resource consumption depends primarily on

- *Experience in knowledge management*
  The less experience, the more new insights, objectives and initiatives a company must go through before it is able to produce an intellectual capital statement that it is possible to have confidence in.

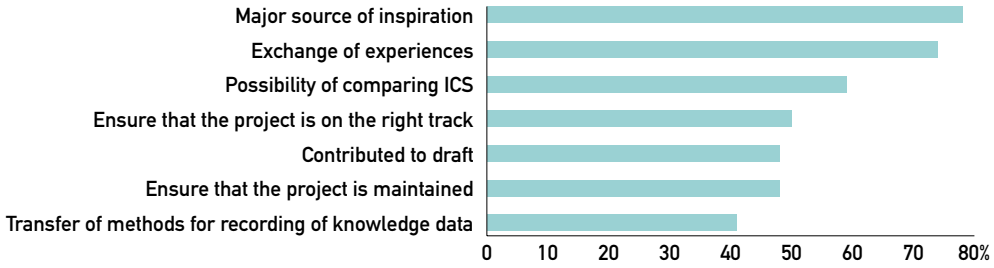
- *The company's registration level*
  The more information that is registered in different areas by the company, the easier it will be to produce an intellectual capital statement that it is possible to have confidence in.

- *Experience in the preparation of communication material*
  The less experience, the more versions of the intellectual capital statement the company will have to go through, before it is able to produce an intellectual capital statement that communicates clearly and accurately to the selected target groups.

- *Type of publication*
  If an intellectual capital statement is to be published as part of the annual report, the work will probably involve more departments. There will here in general be less room for making information publicly known than in an independent intellectual capital statement document. If the company is listed, publication in the annual report will extend the intellectual capital statement preparation process.

Nearly all companies can benefit from searching for information on what an intellectual capital statement is, and also benefit from searching for information that can continuously inspire its content, structure and work process. Books and guidelines can provide important knowledge, but also experienced companies and professional advisers can be sources of knowledge.

Figure 11. Benefit obtained from experience groups. The proportion of companies that mention this benefit



Source: Questionnaire survey among companies that have experience in working with intellectual capital statements

One way of organising the exchange of experience is through so-called experience groups. Taking part in such groups often gives a company inspiration, which strengthens its work with intellectual capital statements. In this forum you can discuss your experiences with other companies and help each other to develop intellectual capital statements whilst maintaining a focus on the work process. See also figure 11.

Quality assurance of the process

To succeed, work with intellectual capital statements must follow general project management principles. That is to say that there must be work plans, task assignment and systematic feedback from management and other contributors. How controlled and coordinated project management must be depends on the company's approach to organising projects, the degree of delegation and decentralisation and the purpose behind an intellectual capital statement. Is it primarily for external communication? The company will then already have a clear knowledge management strategy that only needs to be communicated. A considerable amount of the responsibility can, in this case, be delegated to the project group providing the information to be communicated has been cleared by the management. If work with intellectual capital statements is to be used as an internal management tool, then a stronger and more direct management involvement is needed.

The greatest value is generated when it is an integrated part of company management, because the intellectual capital statement can then be used to:

- follow up and develop the company's knowledge management strategy
- develop initiatives that can contribute to strengthening the company's knowledge management
- form the basis of performance reviews
- develop the company's internal and external communication
- compare with information from other management systems

It is worth noting that many companies, at the start of a project, see intellectual capital statements as primarily being external communication. However, many are experiencing that the management dimension gradually becomes stronger and stronger. This is logical. The external intellectual capital statement communicates the company's knowledge management, and if there is no activity within knowledge management, there is nothing to report. In other words, an intellectual capital statement requires that there is a management of knowledge. Therefore, the internal management objectives are nearly always very important to the intellectual capital statement.

The intellectual capital statement assumes that management always becomes involved. Objectives setting in particular must be approved by the management in the organisation. It sets development targets many

years into the future, and resources are required if they are to be fulfilled. For example, the 'competency development' management challenge requires that management has determined what the company will demand in the future from employees with knowledge resources.

External verification is an additional opportunity to check the process's systematic approach and the external intellectual capital statement's credibility. The verifier can be an auditor whose role does not have to be limited to verifying the intellectual capital statement at completion. An auditor can also check that, in the early phases of the process, that selection, collection and processing of data is systematic and consistent and that it can be repeated year after year.

Intellectual capital statements deepen only where data can be captured continually. It is therefore important not to view the project as a one-off. It is a good idea to consider early in the work, how work with subsequent years' intellectual capital statements should be organised.

The last part of a successful project process is to carry the intellectual capital statement further, meaning that it is followed up and checked that it is used to achieve its stated purposes. Is it known about and read by the selected target groups? Is it an integrated part of the company's total management system? None of these will happen by themselves.

Check questions for the work process

Work plan

- Who participates in the project group and in the steering committee?
- Which other persons and resources is it necessary to draw in?
- What is the project time schedule and deadlines?
- How can management's commitment be ensured?

Knowledge collection

- What can we learn from other companies' experiences?
- Is there a need for an auditor's verification of the figures, methods and contents in the intellectual capital statement?

Anchoring

- How can data recording be organised so that it is as automatic as possible?
- How should work with the next intellectual capital statement be anchored in the organisation?

Management

- How is knowledge management included in the company's overall management system?
- How is the intellectual capital statement used as a management tool in practice?

Communication

- Is it clear which group(s) the intellectual capital statement is targeting?
- Which are the three most important messages to the target group?
- Where and when should the intellectual capital statement be published?
- How can attention around the intellectual capital statement be created?

Appendix 1. Related Management Models

Like many other 'comprehensive' management tools, an intellectual capital statement contains a substantial number of non-financial measurements. This is also true of management tools such as the balanced scorecard and the excellence model. Where one of these three tools is used, it is often included in the company's general management system and sometimes appears in the company's external reporting. Companies that use one of the first two models will often have collected data that can be included in an intellectual capital statement.

But the intellectual capital statement, balanced scorecard and excellence models are all very different. First and foremost they report the company's progress in key areas in different ways.

The main difference is that the balanced scorecard emphasises the company's value chain while the intellectual capital statement focuses on the company's knowledge and competencies. This means that the balanced scorecard is often used to make company structure more efficient. The intellectual capital statement, on the other hand, focuses on the development of the company's knowledge resources and competencies. If you already use the balanced scorecard, the intellectual capital statement will be able to give a more accurate and clear content in the box which in the balanced scorecard is labelled 'learning and growth'. This box is the Achilles heal of the balanced scorecard model.

The difference between the excellence model and the intellectual capital statement is primarily how objectives and measurements are linked together. The excellence model focuses on different aspects of the company's strategy, initiatives and results, but it looks at these areas in isolation and individually. Each component is given a weight, which is significant for the overall excellence score. The intellectual capital statement does not have such predefined lists of points that are to be fulfilled. It looks at interrelationships whilst the excellence model focuses on the individual 'boxes'. Where an excellence model is being used, the intellectual capital statement can help provide an explanation that shows the interdependency of the figures in the excellence model. In other words, the intellectual capital statement method can strengthen the understanding of which figures in the individual 'boxes' are most relevant. Some companies already use the excellence model in their intellectual capital statements.

As all three models build on many different types of figures, it is easier to obtain data for the intellectual capital statement if you already use one of the other models. The intellectual capital statement also supplements the two other models by contributing a strong knowledge and competency element, an area in which it has been documented the two other models have problems with.

Appendix 2. Related Types of Accounts

In recent years, companies, consultants and scientists have provided many interesting theories on accounting in the future. A whole range of different supplementary accounts have emerged that all resemble each another, because they all report new types of figures. This appendix gives a quick overview of the differences and similarities between intellectual capital statements, stakeholder accounts and green or social accounts.

None of the supplementary accounts have yet arrived at a fixed template or model for how they should look, and new designations keep appearing. All the different types of accounts use figures as in financial statements, but the figures are not included into a clearly integrated bottom line. Each company's accounts must therefore contain a description and an argumentation that can link the figures to the company's challenges and express the company's results in relation to this.

Based on the main trends in literature on new types of accounts and statements, it is possible to (with care) classify them with respect to the central problems they pose. Table 3 gives a survey of three main types of supplementary accounts identified in literature.

- Green and social accounts explain how the company handles and remedies problems such as leakages of harmful substances or worker attrition
- Stakeholder accounts are directed towards the dialogue between the company and its groups of stakeholders, for example the company's employees, customers, investors and the local community etc.
- Intellectual capital statements show the company's initiatives to build up, develop and increase the efficiency of its knowledge resources.

All three types of accounts are aimed at developing the company, to make it better prepared for the future. But they have slightly different approaches and attack a number of related problem complexes each from its own specific angle.

Table 3. Three types of supplementary accounts

	Intellectual capital statements	Stakeholder accounts	Green/social accounts
Purpose	The purpose of the intellectual capital statement is to explain the company's resource base and the activities that management implements to develop it.	The purpose of the stakeholder account is to explain the company's co-operation with selected groups of stakeholders.	The purpose of the green/social accounts is to explain how to handle the company's undesirable effects on society.
Content	The content of the statement relates to the company's accumulation and development of knowledge resources, for example in the form of relations with and between employees, customers, technology and processes.	The content of the accounts relates to flows of actions and relative wages paid by and to the stakeholders involved. This describes the general goods or benefits that the state, employees, customers and the local community receive.	The content of the accounts relates to the company's initiatives to ensure a balance in its ecological and social space.
Strategic perspective	The strategic perspective of an intellectual capital statement is to develop the company's value by supporting development, usage and sharing of knowledge resources and competencies. This enables the company to support its intangible assets and its knowledge management.	The strategic perspective of stakeholder accounts is to support the development of the company's value by creating a balance between the demands of different stakeholders relative to each other. This reduces uncertainty around the stakeholders' behaviour.	The strategic perspective of green/social accounts is to develop the company by engaging in a broad dialogue on the company's role in society. This enables the company to demonstrate its responsibility to society.

The three types of accounts expand the focus of the financial statements in various ways. Even if each describes more aspects of the company than the financial statements do, none of them can in principle be deemed to be total reporting. Whether the three types of accounts can in practice be integrated into a common format, is a question which it is necessary and worth examining in a separate study.

Appendix 3. An Industry Specific Guideline?

The guideline for intellectual capital statements is quite comprehensive, which some companies experience as a barrier to starting. The question of an industry specific guideline has therefore come up. The idea was to tailor the guideline to the conditions of one industry and in this way make it more precise and less comprehensive. This idea has been tested in one industry, and the experience has been that this type of guideline creates at least as many problems as it solves.

A simpler guideline loses considerable value

A guideline built on a series of problems particular to an industry, has been shown to contain the fundamental problem that companies in an industry need to differentiate. A guideline that limits potential strategies is therefore of less interest to companies. The guideline will only create value for a company if it enables the company to think innovatively about its situation, which easily can be prevented where intellectual capital statement elements are limited.

In a simpler guideline, a number of 'general values' would have to be previously provided for the four elements, intellectual capital statements, strategic knowledge resources, management challenges, initiatives and indicators. In working with intellectual capital statements, companies would have to choose and prioritise between predefined options. But how can a company relate to the choices it has made. A drastically cut down guideline could not give any useful answers to this.

A simpler guideline that primarily uses predefined categories could, in other words, inhibit the creative analysis process, which is fundamental to the preparation of intellectual capital accounts. Where analysis is left out, the elements chosen for an intellectual capital statement become too random. Intermediary accounts are necessary to make the analysis meaningful.

The conclusion is that other ways must be found to make working with intellectual capital statements in individual industries easier. Industry organisations can without doubt play an active role, as advisers and through supporting the formation of experience groups and other types of networks.

Appendix 4. Survey of Management Challenges, Initiatives and Indicators

The table below shows the main categories for management challenges and their relationship to initiatives and indicators *as they appear in company intellectual capital statements*. There may well be many more management challenges, initiatives and indicators, with other interrelationships. The list is therefore not exhaustive, but intended to provide inspiration.

Management challenge	Actions and initiatives	Indicators (resources)	Indicators (activities)	Indicators (effects)
Recruitment and retention of employees and competencies	Marketing of the company to potential employees • Image and recruitment campaigns • Presentations at educational institutions • Web visibility	• Gender distribution • Number of hired employees • Number of hired employees' in proportion to total employees • Proportion of particularly important employee groups, e.g. IT employees	• Number of job advertisements	• Number/proportion of employees that recommend the workplace to others • Number of presentations and stands at educational institutions and job fairs • Percentage of students stating the company to be an ideal future employer • Number of unsolicited applications or inquiries • Number of visitors to website or average length of stay or proportion of revisits to website
	• Hiring of experienced employees	• Age distribution • Average no. of years service in industry		
	• Employee satisfaction surveys	• Number of surveys held • Documented changes over time	• Proportion of employees participating in employee satisfaction surveys • Number of participants in employee satisfaction surveys answering the questionnaire	• Number of employees who are satisfied or very satisfied • Number of days absent per employee • Number of employees having left the company in proportion to total number of employees • Proportion of employees satisfied with IT resources • Proportion of employees satisfied with physical conditions
	• Performance reviews		• Number of performance reviews • Proportion of employees at performance reviews • Number of reviews in proportion to the agreed number of reviews	
	• Training planning	• Number of employees for whom a competency profile has been prepared	• Number of employees with competency development plans • Proportion of employees with competency development plans • Training costs	
	Flexible and transparent working conditions: • Transparent terms of employment with respect to hours of work, job specifications and requirements etc. • Flexible hours • Possibilities to work at home	• Employees with flexible hours • Full-time and part-time employees • Average no. of years service in company • Number of employees having a home pc • Number/proportion of home workplaces	• Number of overtime hours per employee	• Number of days absent in proportion to number of work days or number of days absent per employee • Number of employees having left the company in proportion to total number of employees • Number/proportion of employee exits

Management challenge	Actions and initiatives	Indicators (resources)	Indicators (activities)	Indicators (effects)
Recruitment and retention of employees and competencies (cont'd)	Creation of common identity and spirit: • Social activities • Common 'rules of conduct'/ values • Rotation through different departments/functions	• Average no. of years service in company	• Number of social activities or costs of social activities per employee	
	• Mentor or introduction scheme for new employees	• Average no. of years service in company	• Number/proportion of newly appointed employees having completed tutor/mentor schemes	
	• Good physical surroundings		• Total costs of premises and office equipment (per employee, if appropriate)	• Number of employees satisfied with physical conditions
	• Competency recording	• Number of employees for whom a competency profile has been prepared		
	• Competency development plans		• Number/proportion of employees with competency development plans • Number/proportion of employees currently participating in internal or external supplementary training courses • Training costs • Number of participants per course activity held internally or externally (describe course purpose)	• Number of employees having left the company in proportion to total number of employees
	• Formal supplementary training via internal and external courses and conferences		• Total training costs • Total education and training costs in proportion to total payroll or per employee • Number of education and training days (per employee, if appropriate) • Proportion of hours spent on education and training	
	Exchange of professional advice through daily work: • Feedback to employees on performance • Contact with different projects • Project work • Stationing abroad		• Number/proportion of employees being or having been stationed abroad	
	Exchange of knowledge: • Intranet and databases • After-hours meetings • Theme days and internal seminars • News/staff magazine • Mentor schemes for new employees • Professional environments/study groups • Cross-disciplinary project groups • Co-operation with research and educational institutions • Knowledge centre visits		• Number of theme days, internal seminars and after-hours meetings • Number of experience meetings (divided into internal and external meetings) • Number of study groups in company • Number/proportion of employees participating in study groups • Average number of meetings in study groups • Number of relationships with universities, business schools and other educational institutions	

Management challenge	Actions and initiatives	Indicators (resources)	Indicators (activities)	Indicators (effects)
Development of company processes	Process optimisation: • Process descriptions • Implementation of process descriptions • Benchmarking		• Time and money to develop processes	• Number of process descriptions
	Operating efficiency: • Homogeneous order processing • Precise delivery • Procedures for handling errors			• Average lead time • Number of production stoppages • Proportion of orders delivered at the right time, place and in the right volume and quality • Number of complaints or proportion of orders with complaints
	Develop competency in process control: • Process managers who describe and maintain processes • Educate employees to carry out quality assurance function			
	IT support of work processes: • Automation of production • IT based design tools • IT based operation and maintenance system	• Number/proportion of IT supporters and number/proportion of IT super users among the employees	• Total IT costs or their proportion of turnover (broken down into hardware, software, service, licences etc.) • Increase in per cent in capacity of new pcs installations	• Proportion of employees satisfied with IT resources
	Resource control: • Time registering • Task contracts • Financial management system			• Costs per unit produced
	Customer-oriented processes: • Clear entry to the company for customers • Improve communication with customers			• Proportion of phone calls answered within 10 sec or average wait time for calls to switchboard • Proportion of letters answered within the time limit
	Quality assurance of processes: • ISO model • Process descriptions and process measurements • Quality assurance manual on the intranet		• Number of audits, benchmarkings and self-evaluation activities	
	Quality assurance of case handling: • Updated guides for uniform and correct case handling • Monitoring and registration of incorrect case handling • Summaries of decision making practices within case handling • User satisfaction surveys with decisions		• Total costs of implementing and developing quality management	

Management challenge	Actions and initiatives	Indicators (resources)	Indicators (activities)	Indicators (effects)
Development of company processes (cont'd)	Quality assurance of projects: • Development projects based on project model and manual • Requirement specification for all development projects • Documentation of projects • Internal project evaluation • Establishing co-operation groups for development projects • Project management competency	• Number/proportion of employees with project management training or experience • Number of business processes described (clearly explaining what a process is) • Number of projects carried out in co-operation with external partners (explain what project type, project task, product or organisation)	• Number/proportion of employees in project management training	• Number of employees having completed project management training this year • Number of certifications based on quality standards • Number/proportion of projects run in accordance with the product development model
	Knowledge exchange across the organisation: • Internal courses and after-hours meetings • Experience groups/professional communities across departments • Interdisciplinary project groups • Job rotation • Transfer pricing system	• Number of visits to knowledge centres (which are relevance to the company) • Number of employee magazines per year • Number of knowledge documents on the intranet • Proportion of projects with project participants from more than one expertise area • Cross-sales proportion of total turnover • Average number of participants per project group (explain which types of project groups)	• Proportion of working hours spent on knowledge-related activities (participation in courses, seminars, development assignments etc.) • Number of times employees use the CV base, or number of times employees use the CV base on average	
	IT support of knowledge flow: • Overview through the intranet of who knows what • Experience accumulation in database	• Number/proportion of registered users of electronic network • Number of electronic discussion groups		
Visibility in the marketplace	Marketing and profiling with respect to customers: • Newsletters and similar to relevant customers • Prepare information material and cases • Focused initiatives on key customers • Cold calling • Visibility in local area through cultural and leisure events • Participate in projects receiving public attention • Define core capabilities	• Proportion of new customers to total number of customers • Change in number of customers (new less loss of customers)	• Informationsudgifter pr. kunde • Information expenses per customer • Number of presentations, conferences and training days held where customers participate • Number of published articles, pamphlets and brochures	
	Diffusion of company's image within professional circles: • Participate in conferences • Articles in relevant professional journals and magazines		• Number of published articles, pamphlets and brochures	
	Visibility in the political system: • Publications in the form of articles, brochures, films etc. • Presentations and teaching		• Number of presentations, conferences and training days held with customers as participants • Number of published articles, brochures, films etc.	

Management challenge	Actions and initiatives	Indicators (resources)	Indicators (activities)	Indicators (effects)
Building up partnerships with customers	Dialogue with customer on co-operative process: • Co-operative model and brand-building model • Customer database • Involve customer in product development process • Clients are given electronic access to own data • After-hours meetings, courses and seminars for customers • Focus groups (planned) • Matching customers and employees • Increase employees' empathy and communicative skills	• The 5-10 largest customers in proportion to total turnover	• Number of customer committees and idea groups • Number of presentations, conferences and training days held with customers as participants	• Number of years the company has maintained relations with customers • Number of customers buying the company's products and services in proportion to total number of customers having bought products and services (within a period corresponding to the product or service life) • Proportion of lost customers to total number of customers or change in number of customers (new less loss) over total number of customers
	• Customer satisfaction surveys		• Number of participants in customer satisfaction surveys in proportion to total number of customers • Response rate for distributed questionnaires	• Proportion of customers who are satisfied or very satisfied with the company (weighted by question importance, if appropriate) • Number/proportion of customers/users who would recommend the company to others
Accumulation of insight into users' needs	Compiling knowledge of users' needs: • Involve users in product development process • Knowledge agents in specific professional fields • Focus groups		• Number of customer committees and idea groups • Number of presentations, conferences and training days held with customers as participants	• Number/proportion of customers/users who would recommend the company to others
	Match users' needs through development of new products: • Update methods and concepts • Development projects • R&D investment • Patenting	• Number of patents applications • Number of approved patents at present	• Total costs of research and development or these as proportion of turnover	• New products as proportion of total turnover or of total number of goods sold
	• User surveys			• Number of customers who are satisfied or very satisfied with the company (weighted by question importance, if appropriate)
Development of access to or supply of external knowledge resources	Partnership with external resources: • Classify and evaluate partners • Define common objective for partnership • Partner satisfaction survey • Profile opportunities in the company			
	Contact with research and educational institutions: • Update knowledge database • Close contact with universities			

Index

Intellectual Capital Statements – The New Guideline

In recent years, Denmark has consolidated its position as an international leader in work with intellectual capital statements. The first guideline was published in November 2000 and around 100 companies and public organisations have tested the method since it was published. This revised edition is based on their experience from working with the guideline.

The test phase results send a very clear message. Working with intellectual capital statements makes a difference. Companies achieve much better knowledge management and it provides companies with a powerful tool in communicating with their surroundings.

The new guideline explains the intellectual capital statement concept, content and structure. The aim of the guideline is to help individual companies or public organisations develop knowledge management strategies and communicate the results in external intellectual capital statements. Through questions, checklists, examples and good advice the guideline leads companies systematically through the process of preparing intellectual capital statements. The method can be used by those who are new to the concept as well as companies with more experience that are looking for new inspiration in their work with intellectual capital statements.

For more information on the project, please see the Danish Ministry of Science, Technology and Innovation's homepage: www.vtu.dk/icaccounts

ISBN: 87-91258-50-2