Changes in the nature of value creation have inevitably made new reporting metrics and frameworks necessary. This in turn has given rise to a debate on intellectual capital, which has led governments, trade organizations and the European Commission to draw up guidelines (Meritum, 2002; Mouritsen et al., 2001a, 2003) and reports discussing best practices (e.g. Zambon, 2003). In some, mainly Scandinavian countries, firms have actually published intellectual capital statements. The interest in intellectual capital is reflected in the concerns of firms of knowledge society where they are required to take stock of all their resources, both tangible and intangible.

One of the characteristics of knowledge society firms is their ambition to develop performance measurement systems and practices that emphasise the management of intangible, which traditionally are said not to be a central management concern. Not only firms (Kaplan & Norton, 2001, 2004), but also the capital market (e.g. Amir & Lev, 1996), recognise the need to develop such insights for management and reporting purposes. The challenge is to help develop, communicate, monitor and evaluate company knowledge based strategies.
In this chapter, we first discuss why intellectual capital statements are relevant and present some of the arguments in favour of using them. These arguments have been put forward by companies, which have prepared intellectual capital statements. We then go on to show that working with knowledge management and intellectual capital statements also involves ways in which a knowledge management strategy can be prepared. This is followed by an outline of the methodology, based on the example of a Danish firm. Finally, we discuss the implications of publishing an IC report and how an intellectual capital statement may be seen as a report on the company’s knowledge management.

4.1 Elements of Intellectual Capital

Intellectual capital (IC) concerns intangible or knowledge-based assets, which are becoming increasingly important in the knowledge economy (see Chapter 1). Unlike financial capital and tangible assets, IC is generally ‘composed’ of human and structural capital and their interrelationships.

Skandia, a Swedish insurance company, was the first to consider IC as a product of human and structural capital (Edvinsson & Malone, 1997). According to Skandia, intellectual capital is the result of relations between these components, which means that human capital is leveraged by structural capital. Here, the relationship is at stake, and therefore the assets found in human and structural capital are only metaphorically separate.

It has often been said that the importance of IC lies in the fact that it can help ‘explain’ the difference between the market and book values of a company. While this explanation should not be taken too seriously, it can be illustrated in Figure 4.1, which shows breakdown of market value into financial and intellectual capital, and that of IC into components of human and structural (organisational and customer) capital.
Figure 4.1 shows the model used in most intellectual capital research, although many researchers disagree on the actual meaning of the elements and the way in which they interrelate. Key definitions are presented in Table 4.1.

<table>
<thead>
<tr>
<th></th>
<th>Human capital</th>
<th>Organisational capital</th>
<th>Customer capital</th>
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<tr>
<td>Karl Erik Sveiby (1997)</td>
<td>‘involves capacity to act in a wide variety of situations to create both tangible and intangible assets’</td>
<td>‘Internal structure includes patents, concepts, models, and computer and administrative systems’</td>
<td>‘The external structure includes relationships with customers and suppliers. It also encompasses brand names, trademarks, and the company’s reputation or image’</td>
</tr>
<tr>
<td>Thomas Stewart (1997)</td>
<td>[m]oney talks, but it does not think; machines perform, often better than any human being can, but do not invent .. [the]</td>
<td>‘knowledge that doesn’t go home at night .. [I]t belongs to the organization as a whole. It can be reproduced’</td>
<td>is ‘the value of its franchise, its ongoing relationships with the people or organizations to which it sells … [like] market</td>
</tr>
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primary purpose of human capital is innovation - whether of new products and services, or of improving in business processes’

and shared … technologies, inventions, data, publications, … [and] strategy and culture, structures and systems, organizational routines and procedures ..’

share, customer retention and defection rates, and per customer profitability’

| Leif Edvinsson and Michael Malone (1997) | ‘combined knowledge, skill, innovativeness and ability of the company’s individual employees… it also includes the company’s values, culture, and philosophy. The company cannot own human capital’ | ‘hardware, software, databases, organizational structure, patents trademarks, and everything else of organizational capability that supports those employees’ productivity … [It is] everything left at the office when the employees go home… Unlike human capital, structural capital can be owned and thereby traded’ |

**Table 4.1: Key definitions of IC components**

The definitions in Table 4.1 show that IC objects are knowledge-based resources which are important to the firm and which are typically not reported in (external) accounting systems. People’s capacity and motivation to act, their innovative capabilities, skills and competencies are the objects of human capital. IT systems, concepts, patents, organisational procedures and knowledge that do not go home at night are examples of organisational capital. Relationships with customers, brands and image are examples of customer capital. IC, which has been established as the link between the components human and structural capital, is the product of these factors.

This definition has appeal because it can be neatly expressed, as shown in Figure 4.1. Obviously, however, a quick look at table 4.1 shows that there is no simple mathematical way in which the objects can be added to obtain a value. Rather, the IC template in figure 4.1 should be seen as more a starting point than a conclusion.

### 4.1.1 Why an Intellectual Capital Statement?

In order to manage and report about knowledge resources systematically, some firms develop intellectual capital statements to monitor the development of knowledge resources and competencies. An intellectual capital statement expresses links in the firm’s activities to develop knowledge resources (knowledge management) and monitors their development
towards purposes. Emphasising how the firms has developed and proposes to develop employees, customers, IT and business processes, the intellectual capital statement links those elements and suggest how the firm’s ‘business model of knowledge’ is constituted. Intellectual capital statements thus monitor the firm’s portfolio of knowledge resources and the process whereby different the types of knowledge resources are combined with each other and with traditional assets.

Companies with long experience with intellectual capital statements cite numerous reasons for its importance and potential as a management tool. First and foremost, the intellectual capital statement is a tool for managing a company’s knowledge resources, and, through improved management of its knowledge resources, for creating increased value. The process of preparing intellectual capital statements includes both designing a knowledge management strategy and identifying initiatives to implement this strategy. In particular, this takes a starting point in the company’s mission and visions, and must be reflected in the methods that make the management of knowledge resources consistent. Intellectual capital statements can thus help structure and prioritise the company’s efforts to realise its knowledge management strategy.

The intellectual capital statement helps to focus what the company does to develop its knowledge resources and on the results of these activities, such as satisfied employees and customers, increased sales of new products, or a consistent basis for making processes and activities work. Thus, the intellectual capital statement makes knowledge management a targeted effort.

Knowledge sharing presumes a motivation, which does not come automatically. A knowledge sharing culture involves the exchange of experiences, the ability to identify and cooperate with persons in the organisation with complementary competencies, etc. Many companies have used the intellectual capital statement to develop a knowledge-sharing culture and a common identity since it helps to identify what the organisation must know and be good at. This may be particularly relevant in connection with a merger or with generational change or rapid growth.

Publication of the intellectual capital statement involves a communication activity which not only expresses the company’s knowledge-management principles – both internally and externally – but also documents whether its proclaimed intentions are related to discernible actions, activities and results/effects. Making this type of communication, a set of
obligations between the company’s management and actual and potential employees, as well as actual or potential customers and users, is developed. Potential employees prefer the company to other companies and customers choose it as supplier. In this way, the intellectual capital statement contributes to inviting others outside the company to participate as resources in the company’s development, as well as participate in the development of its knowledge management. It thus helps to adjust expectations and motivate employees, customers and others to participate in the company’s general development.

Furthermore, the intellectual capital statement helps to attract qualified employees – often in competition with other companies. Potential employees may find a company with an intellectual capital statement interesting, since it documents that the company takes its knowledge resources, including employees and competence development, seriously. Experience shows that this effect is, for example, reflected in the fact that the company receives more unsolicited job applications and that such applicants are both more qualified and fit the company profile better.

Finally, the intellectual capital statement may also lead to better communications with the company’s customers, since it can give them a better idea of what the company is doing, thereby creating a better basis for dialogue. Some companies have also gained contact to new customers and increased business with existing customers through the intellectual capital statement, since it presents a clear account of what the company stands for and where it is going.

### 4.1.2 Danish firms’ purposes of developing intellectual capital statements

European, and particularly Scandinavian, firms have shown a remarkable enthusiasm for the intellectual capital statement. Figures 4.2 and 4.3 show how a sample of about 50 Danish firms using the so-called Danish guidelines for Intellectual Capital (Mouritsen et al., 2003) consider the purpose of their efforts in relation to intellectual capital and knowledge resources. For ease of presentation, the motives have been sorted into external (Figure 4.2) and internal motives respectively (Figure 4.3).
Figure 4.2: Proportion of companies with the following objectives of the intellectual capital statement as external reporting tool

Figure 4.2 represents the firm from the perspective of the IC statement, and suggests that the main purpose of the statement is to show job applicants that the firm regards its employees as an important asset. It thus combines reporting with a description of the nature of the firm (e.g. as employee-based, flexible, and customer-oriented), and thereby attempts to attract the valued resources it considers employees to be.

In Europe, IC is currently more connected with attracting and applying knowledge-based resources than with raising capital. This may also be why the internal focus on intellectual capital is significant in European/Scandinavian firms. Figure 4.3 shows how a segment of Danish users of IC statements rate their internal purposes. Clearly, the overriding purpose is to locate and manage knowledge in relation to the firm’s strategy. The internal management of intangible resources is therefore not only an external agenda, but also an internal one. And this makes sense: what is the point of an external report if it has no relationship to internal practices?

Figure 4.3: Proportion of companies with the following objectives of the intellectual capital statement as an internal management system
Figures 4.2 and 4.3 suggest that there is some focus on the management of knowledge resources, although, as Johanson (2003) points out, there are problems. One concerns understanding the character and effects of intangibles, and it is often difficult for firms to explicate, communicate and act on their ambition to develop and apply intangible resources. They too often lack the ability to explicate the business model (Bukh, 2003) that integrates intangibles with corporate strategy. The current tools and methods available might need more development, and there might also be a huge need for education and training.

Almost none of the firms in the sample are publicly traded, i.e. listed on the stock exchange. An intellectual capital report is, however, often thought of as a supplement to the traditional annual report, drawn up to provide more relevant information to investors. The argument for better disclosure of knowledge resources is in line with arguments that the value relevance of traditional annual reports appears to be declining (e.g. Lev & Zarowin, 1999), although this is still the subject of debate (Core et al., 2003; Francis & Schipper, 1999), and not all studies find strong evidence to support this argument (AAA, 2003).

Most authors agree that information on knowledge resources is related to firms’ market value. For external communication purposes, additional kinds of reporting may therefore be relevant. The IC statement attempts to show how a firm has managed its knowledge resources. This is probably slightly different from the perspectives usually mobilised in the capital markets, where concern about efficient capital allocation has been seen as more important.

4.2 Working with Intellectual Capital Statements

When a company decides to draw up an intellectual capital statement, it is not only faced by the problems of preparing a publishable report. Often, the company has an unclear idea of what the IC statement must contain, because it does not have a clear knowledge-management strategy. For many companies, this strategic analysis is the most important motivation for, and is also an integrated part of, preparing an intellectual capital statement.

The work of preparing an intellectual capital statement consists of an analytic process which results in the company’s knowledge-management strategy, e.g. stating the
An IC statement can be seen as consisting of four elements, which together define the company’s knowledge management (Bukh et al., 2001; Mouritsen et al., 2001a, 2001b, 2003) in the sense that it links users of the company’s goods or services with the company’s need for knowledge resources. They include acknowledgment of the need for knowledge management, a set of initiatives to improve knowledge management, and a set of indicators to define, measure and follow up initiatives.

One element is a knowledge narrative, which expresses the company’s ambition to increase the value a user obtains from its 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 describes the types of knowledge resources that 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. The narrative is tied together by such words as ‘because’, ‘therefore’ and ‘in order to’. In this way, the knowledge narrative argues for how knowledge is supposed to lead to improvements for the user.

A second element is a set of (knowledge) management challenges, which identify those knowledge resources that need to be strengthened through in-house development or outsourcing. This can be achieved by intensifying co-operation with innovative customers, by developing greater expertise in specific fields, or by acquiring greater insight into the company’s control processes. Management challenges such as these have a certain degree of permanence over time. They tend not to change every year, since they are closely linked to the knowledge narrative, and thus also to the individual knowledge resources within the company. A first step towards meeting such challenges could be to do something about existing knowledge resources. But it could also be to introduce new types of knowledge resources currently not found within the company.

A third element is a set of initiatives to improve knowledge management, i.e. how to compose, develop and procure knowledge resources, and to monitor their extent and effects. This could, for example, be achieved by 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. In principle, these are all short-term actions. When 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: hiring personnel, launching training initiatives and developing the required procedures and routines.

A fourth element is a set of indicators, which show whether initiatives have been launched or whether 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 what effect it has had. 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’

These four elements are interrelated. Their relevance only becomes clear when seen in the context of each other. With indicators and the knowledge narrative both become more understandable; with management challenges and efforts, both are more understandable; and therefore, with all four elements, all four elements have been given definitions that make the whole a connected proposition. 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 identify 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 completed, the analysis can be presented in the intellectual capital statement model shown below. As the model shows, there is an interrelationship between the individual elements both in the intellectual capital statement and in the company’s knowledge management.
By knowledge resources is meant not only the knowledge and specialist competencies of individuals to which knowledge management is often related (Nonaka, 1991; Nonaka & Takeuchi, 1995). These are, of course, important, but knowledge as a notion cannot be precisely defined and is not a ’tangible’ thing. One cannot see knowledge in itself, and it cannot be directly described, changed, developed and evaluated (von Krogh et al., 2000).

By introducing the four types of knowledge resources, knowledge is translated into manageable objects on which action can be taken, and the intellectual capital statement can be seen as a tool for systematically keeping an eye on how the company combines, develops and uses its knowledge resources. Thus, while the focus is still on employees and their knowledge, the knowledge-management strategy must specify how they work in interaction with other resources, such as customers, processes and technology.

6.3 Example: The case of Maxon Telecom

Maxon Telecom A/S, which designs and develops cutting-edge mobile telephones for its Korean parent company, which then manufactures the phones, is one example of how the Danish guidelines are used in practice. Maxon Telecom is given the basic specifications for mobile phones and takes part in an active dialogue on technical specifications and design. Furthermore, the firm provides the competent sparring necessary for its Korean parent company to supply ‘communication, anytime, everywhere’ to its customers.
Maxon Telecom must be able to identify and exploit the necessary knowledge resources. This can be achieved in many ways, and the knowledge narrative specifies which knowledge resources Maxon Telecom considers necessary to create use value. Highly skilled employees are seen as particularly important, because they possess 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, since only then will customers’ and users’ needs be met. This requires an understanding of mobile phone users’, manufacturers’ and operators’ needs. The fact that Maxon Telecom is a development company means that it has to be at the cutting edge of technology and needs knowledge of existing as well as future technologies.

The ‘insatiable’ demands of the mobile phone market means that new developments must be brought to the market as soon as possible. If not, 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, within the budget, and at the required quality level. These are the knowledge resources that Maxon Telecom must strengthen through its initiatives.

Some of the management challenges concern developing existing knowledge resources, such as personal knowledge and project management skills, which deliver ‘on-time products’. Others concern acquiring knowledge not found within the company, such as monitoring technology development and product development with respect to customers’ and users’ needs.

These challenges are addressed by the initiatives Maxon Telecom has introduced, which are designed to establish contact with external parties through communication with end users and through networking and conferences. Other initiatives address the systematic development of competencies identified as necessary to supply use value, which, in this case, include personal and specialist competencies and project management competencies.

Indicators give the company the possibility to follow up on the development and effect of these initiatives, and, ultimately, whether Maxon Telecom is able to supply the use value they are working towards.

Table 4.2: A summary of the elements of Maxon Telecom’s intellectual capital statement 2002
Knowledge narrative

• 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 into users’ and customers’ needs, insight into existing and future technologies and the ability to run projects.

Management challenges

• Product development
• Improvement of personal skills
• Ensuring products are on time
• Creating knowledge of and competencies within current and future technologies

Initiatives

• Check users’ expectations and satisfaction
• Conduct employee performance reviews
• Launch Microsoft Projects training
• Train people in new technologies

Indicators

• Number of satisfaction studies (and market surveys) conducted
• Customer satisfaction with quality
• Number of projects ordered during the year
• Number of projects implemented on time
• Number of projects kept within the agreed budget
• Number of departments
• Participation in CEBIT and Cannes

4.4 The Intellectual Capital Statement as Report

When published externally, the intellectual capital statement is a report comprising three components: text, indicators and illustrations. The report may start with the knowledge narrative, followed by management challenges, and takes the reader to the initiatives, which are documented via a number of financial or non-financial key ratios or indicators. The knowledge management strategy, as, for example, outlined for Maxon Telecom in section 4.3, does not in itself constitute the intellectual capital statement, but is the basis for an intellectual capital statement containing text about the knowledge narrative and management challenges, indicators about the implementation of the respective initiatives, and illustrations, drawings and other graphical effects which may further illuminate the knowledge narrative and management challenges.
The text of the intellectual capital statement communicates the company’s knowledge narrative, management challenges and initiatives, as well as describing the company in general. In particular, the text must explain the translation between knowledge narrative, management challenges and the initiatives documented in the intellectual capital statement via the indicators. This also means that the indicators cannot stand alone; they do not speak for themselves. The reader of the intellectual capital statement can only make sense of the figures if they are connected through the text.

Finally, in addition to text and figures, the intellectual capital statement often contains a number of illustrations, e.g. such graphical elements as figures, models, colours and drawings, which help to support and communicate the company’s knowledge narrative. Some companies have illustrations that, in each their own way, explain a small part about what the knowledge resources consist of.

The publication of the intellectual capital statement is a communication activity that not only reflects the company’s strategy for knowledge management and knowledge management activities – both internally and to external partners – but also documents whether there actually are actions and activities behind the words. By virtue of this communication, a number of obligations develop between the company’s management and current and potential employees, as well as current or potential customers and users. In this way, the intellectual capital statement helps encourage others outside the company to participate not only as resources in the company’s development, but also in the development of the company’s knowledge management. The communication helps to adjust expectations, and can motivate employees, customers and other stakeholders to get involved in the company’s development.

6.5 Conclusion

The intellectual capital statement is a document, which makes knowledge management a general management activity and not just a matter for the individual or middle manager. From being a secondary activity in a few limited areas of the company, knowledge now becomes a general activity, which concerns everybody, because now there is an intellectual
capital statement, which circulates ideas about how knowledge should be developed, boiled down, anchored and used.

Intellectual capital, intellectual capital statement and knowledge resources are not traditional accounting entities. Often, the need for an intellectual capital statement is motivated by the increasing difference between the company’s book value in the financial statement and the value a company can trade at in the market. But this is far from being a sufficient reason for drawing up an intellectual capital statement, and experiences from the Danish intellectual capital statement project have also shown that companies state a number of other reasons. These range from ensuring innovation, through supporting strategy, to coordinating continuing education. What connects these activities is a management focus on knowledge – and that is precisely what an intellectual capital statement is all about.

This chapter has focused on the company’s internal problems with the development of knowledge resources and the formulation of a knowledge management strategy. Thus, we have only discussed the importance and use of the external intellectual capital statement to a limited extent.

Finally, it should be noted that we regard the preparation of the intellectual capital statement as an essential part of the company’s realisation of its knowledge management strategy. The publication of the intellectual capital statement involves a communication activity, which not only reflects the company’s knowledge management principles – both internally and to external partners – but also documents whether there really are actions and activities behind the words. Through such a communication, a number of obligations develop between the company’s management and actual and potential employees, as well as actual or potential customers and users. Potential employees prefer the company to other companies and customers choose the company as supplier. In this way, the intellectual capital statement helps encourage others outside the company to participate both as resources in the company’s development and in the development of the company’s knowledge management. The communication helps to adjust expectations and motivate employees, customers and other stakeholders to get involved in the company’s development.

The translation of management challenges, via actions, to indicators offers great opportunities of determining how the company’s knowledge resources work and how it
keeps hold of its assets and makes them relevant to users. If this is the result, the intellectual capital statement not only contributes to measuring where the company is at a given time, but also helps to refine and develop a sense of how the company creates value.

Literature


