

# A Reporting Perspective on Intellectual Capital

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## **Introduction**

Increased attention to intangibles and knowledge resources to create value has called for new frameworks to report organizational performance (Bukh, 2003, Marr & Spender, 2004, MERITUM, 2002, PRISM, 2003). The advent of the knowledge economy has increased the importance of knowledge-based resources. However, the majority of these resources are not reported in traditional balance sheets. This has created an information gap in the market and more firms and organizations are calling for voluntary disclosure of these knowledge-based resources and intangible assets to close this gap. There have been considerable efforts in Europe, where governments, trade organizations and the European Commission have invested in developing guidelines and best practices on how to report on intellectual capital. In some countries – most notably Scandinavia – firms have experimented with voluntary reporting and have produced and published intellectual capital statements.

Much of the effort in Europe has tried to address the dynamic nature of intangible assets and therefore tried to go beyond the static reporting of separable assets such as patents or R&D investments in balance sheets. The aim is to move away from the static reporting of ‘assets on hold’ towards a more organic view in which these knowledge assets are seen as interconnected in organizational processes (Mouritsen, 2003). Understanding the interconnectedness of resources has

increased the interest of companies to report on e.g. the effectiveness of business processes, investments in human competencies and develop of relationships with customers.

Some companies include information on their intangibles in the narrative part of their annual report and others produce a more elaborate separate supplement reports. The example for the former is the leading financial firm UBS, that writes in their latest annual report *“To the Outside world, our strength is often perceived as being derived from financial success of our business. Yet, at the same time, we also believe our strength in projected through other more intangible factors – factors such as the values we share, our culture, our client relationships and our brands. We have distilled these factors into the five key elements of Client Focus, Innovation and Learning, Talent and Culture, Brand and Identity and Financial Intelligence. They are the value drivers of our business.”* They then move on to provide further information on each of these value drivers. One of the first companies to produce a supplement report on their intellectual capital was the Swedish insurance company Skandia in 1995. Even though Skandia separates human capital and structural capital it is the relationship and interaction between these components that is important (Edvinsson & Malone, 1997). In order to address the increasing importance of knowledge-based assets and their dynamic interaction (Marr et al, 2003, Mouritsen and Larsen, 2004), both, companies and capital markets call for ‘integrated’ performance management systems (Kaplan and Norton, 2001, 2004; Amir and Lev, 1996) that address these issues and improve our understanding of organizational performance.

Understanding the competitive position of firms is not any more only about positioning the firm vis-à-vis its competitors with regard to opportunities in the market. Increasingly, it is concerned with the internal resource architecture, capabilities, and competencies. A competitive advantage can be gained by possessing resources that are rare and difficult to imitate (Barney, 1991) and it is often the knowledge-based assets that fulfill these criteria. Firms therefore need to understand and report their knowledge-based resources such as know-how of employees, relationships with customers or suppliers, brand and image, and information technology (Marr et al, 2002, Mouritsen, 1998). The extent of this problem is highlighted by the fact that firms such as Microsoft or Coca Cola only report their traditional assets in their balance sheets, which only account for a very small fraction of their market value. Even for manufacturing firms such as Honda or BP the assets in the balance sheet represent less than 30 percent of market value. Even if such measures are debatable, they indicate that there is more to corporate growth than is currently recognized in financial statements.

In this chapter we aim to provide a European perspective on voluntary reporting of intellectual capital. Intellectual capital reports are influenced by management accounting and are responses to the relevance loss of traditional accounting. In the following sections we will outline the reasons why extended reporting on intellectual capital is crucial. We then go on to discuss what firms should include in these reports before we discuss the two major movements on reporting on intellectual capital in Europe, namely the MERITUM and the Danish Guidelines. We then provide a practical case example of intellectual capital reporting before we take a look into the future of intellectual capital reports.

## **Why is there a need for intellectual capital reporting?**

The value relevance of traditional annual reports appears to be declining (e.g. Lev and Zarowin 1999). Even though the extent to this erosion of relevance is debated (Collins et al. 1997; Core et al. 2003; Francis & Schipper 1999; AAA, 2003), most authors agree that non-financial information like market size and market penetration are significantly related to market value (Amir and Lev 1996). There is widespread and growing frustration with traditional financial reporting as is expressed in, for example, the 'Jenkins Report' (AICPA 1994), the work of the former commissioner of the Securities and Exchange Commission (SEC) Steven Wallman (1996, 1997), and, more recently, the Accounting Standard Board (2002) and Canadian Institute of Chartered Accountants (2001). They all argue that the financial reporting system is incapable of explaining 'new' resources such as internally generated intangibles such as relationships or knowledge. Disclosing information on such factors is likely to lower the cost of equity capital because it decreases uncertainty about future prospects of a company and facilitates a more precise valuation of the company (Botosan, 1997). Other argue that it will also enhance stock market liquidity and increase demand for companies' securities (Healy and Palepu, 2001).

Various studies of information demands of investors and analysts indicate a substantial difference between the types of information found in companies' annual reports and the types of information demanded by the market (Beattie & Pratt 2002, Beattie *et al.* 2002; Eccles *et al.*, 2001; Eccles & Mavrinac 1995). This information gap is partly due to an increased demand for non-financial information, i.e. concerning the company's strategy and competencies, and its ability to motivate the staff, increase customer satisfaction, etc. However, this information gap may also be due to lacks of understanding of business models and of proper communication between company management and the capital market (Bukh, 2003).

Below we summarize some of the main reasons why there is an increasing need for externally reporting information on intellectual capital. It has been suggested that the capital market may be at a disadvantage in several ways if information on intellectual capital is not reported:

1. Smaller shareholders may be disadvantaged, as they usually have no access to information on intangibles often shared in private meetings with larger investors (Holland, 2001).
2. Insider trading might occur if managers exploit internally produced information on intangibles unknown to other investors (Aboody and Lev, 2000).
3. Stock market liquidity and increased demand for companies' securities is enhanced by greater disclosure on intangibles (Diamond & Verrecchia, 1991).
4. Volatility and the danger of incorrect valuations of firms is increased, which leads to investors and banks placing a higher risk level on organizations.
5. Cost of capital is increased, due to e.g. higher risk levels placed on companies (Lev, 2001).

Reporting of intellectual capital is important for capital markets and external stakeholders in order to improve their understanding of the firms' competitive positions. However, reports on intellectual capital can also be used to improve internal communication and therefore the internal understanding of the organizational value drivers (Marr et al, 2003). The challenges many firms are facing are (1) identifying their critical intellectual resources (2) find the right means to manage them in order to improve the competitive position of the firm. A management tool is required that can help managers to answer managerial questions such as: Are our intellectual resources increasing or decreasing? What knowledge do we possess? How is it developed? Reports on intellectual capital can help organizations to better understand their intellectual resources and the way they are managed.

## **What Intellectual Capital should Companies report?**

Intellectual resources are often context specific, idiosyncratic, and interconnected (Marr et al, 2003). Resources that might be extremely valuable for one organization might be of no value to another. Amazon, the online book retailer might possess knowledge about book retailing and might have good relationships with book suppliers, however, these are probably of no value to, let's say, a pharmaceutical company. Furthermore, it is difficult to understand the value of individual intellectual resources without taking into account the interdependencies with other assets (Lippman and Rumelt, 1982; Dierickx and Cool, 1989; King and Zeithaml, 2001). For example, the latest technology is worth little without the right knowledge and competencies of how to operate it. In

turn, all the latest understanding and knowledge of how to operate technology is worthless if employees do not have access to the technology (Marr et al. 2004). This means, that organizations need to provide more context and information about what intellectual resources are important and how they are combined to deliver organizational performance. The implication for intellectual capital reporting is that it is impossible to precisely define the different assets. It is only possible to provide examples or classifications of intellectual assets which might help organizations to make sense of their intellectual resources. This is a key reason why traditional balance sheet approaches are unsuccessful, as they fail to provide the context or information about interconnectivity of assets. Taking into account the above outlined limitations of any taxonomy, below we provide examples of possible knowledge-based assets companies might want to report (see also Marr and Starovic, 2003).

- Human resource assets such as skills, competence, commitment, motivation and loyalty of employees. Some of the key components are know-how, technical expertise, and problem solving capability, creativity, education, attitude, and entrepreneurial spirit.
- Relations to partners such as customers and suppliers. These relationships could be licensing agreements, partnering agreements, contracts, and distribution arrangements..
- (Virtual) infrastructure assets which embrace organizational capabilities found in routines and practices, as well as intellectual property, such as patents, copyrights, trademarks, brands, registered design, trade secrets and processes whose ownership is granted to the company by law.
- 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 infrastructure, data bases, or physical networks.

A company intellectual capital strategy is therefore about the above knowledge resources and *their interaction*. When the interaction between these knowledge resources is understood, the firm's knowledge management *strategy* is clear (Marr and Schiuma, 2001, Mouritsen *et al*, 2003).

## **Intellectual Capital Reporting in Europe**

Various initiatives are under way in Europe to address the shortcoming in corporate reporting. One project is the combined E\*Know Net and MERITUM project funded by the European Commission to create a network across Europe to conduct research into the management and reporting of

intangibles (MERITUM, 2002). Another large pan-European project is the PRISM project, organised to bring together researcher and practitioners around research and development work in relation to intangibles (PRISM, 2003). And a third large project is one sponsored by Danish Government to design guidelines for firms to prepare intellectual capital statements. The guidelines were then tested with about 100 firms and public organisations, which experimented with producing intellectual capital statements (Mouritsen et al., 2003a).

The Danish guidelines focus on the linkages between the various resources in their narrative, which is an open-ended interpretation of how the elements of intellectual capital cohere in dynamic interactions. The MERITUM guidelines emphasize the identification of the different components (human capital, organizational capital and relational capital) and attempts to justify their existence as organizational value drivers. The difference is in how rigid they define the elements of intellectual capital. The Danish guidelines focus on the translation of knowledge into knowledge-assets. The aim is to highlight the relationships between a narrative understanding of knowledge, a business model of how knowledge works in the firm, a set of knowledge management activities and a reporting system that can monitor the development and use of knowledge resources. It is a process model of how knowledge translates into organizational performance. The MERITUM model differs slightly as it starts with the strategic objectives and then aims to identify the knowledge-based performance drivers. These are then classified into human, organizational and customer capital and performance indicators are developed for these components. This approach is more of a structural model of knowledge elements in organizations. The PRISM model is slightly different again as it differentiates tangible assets from three types of intangible assets such as intangible good, intangible competencies and latent capabilities

The difference between these guidelines is that the Danish guidelines emphasize the procedural nature of the management of knowledge, whereas the MERITUM guidelines view is more structural. The Danish guideline encourages organisations to produce reports that contain the following three main elements.

1. Knowledge Narratives
2. Management challenges and initiatives
3. Set of indicators

The knowledge narrative concerns the achievements of the firm relative to its customer value proposition and related resource position. Being a narrative, it must contain a story line involving a

connected set or network of resources and ambitions that have to be in place for the firm to be able to understand its required intangibles. It conveys how the products and services of a firm add value to its customers and identifies the critical knowledge resources that will help the organisations to deliver the value. By using words such as ‘because’, ‘therefore’, and ‘in order to’ organisations are able to describe how knowledge assets drive organisational performance and deliver value to stakeholders. Therefore, the knowledge narrative will establish the link between value perceived by customers and the company’s knowledge resources.

Management challenges are a set of challenges derived from the knowledge narratives, which concern the management of the organisational knowledge resources in connection with customers, employees, processes and technologies. Translating the knowledge narratives into well-defined challenges involves explaining which knowledge resources need to be strengthened or acquired in order to address the challenges and achieve the strategic objective. Management challenges are further broken down into activities, initiatives and processes that need to be put into place to address the challenges and attain competitiveness. In this part of the intellectual capital statement organisations can clarify their resource allocation and prioritise activities and managerial action.

In order to measure the successful management of the organisational challenges the firms put in place a set of indicators. These indicators quantify the success of the actions corresponding to individual management challenges. Indicators make it possible for organisation to visualise their performance in terms of its intellectual capital management. Organisations must ensure that the set of indicators makes it possible to monitor whether the initiatives have been successful and the management challenges have been met. There is no predefined set of measures; organisations will have to choose the most appropriate set for their unique position and context. The set can include indicators that measure effects, activities, or the resource mix.

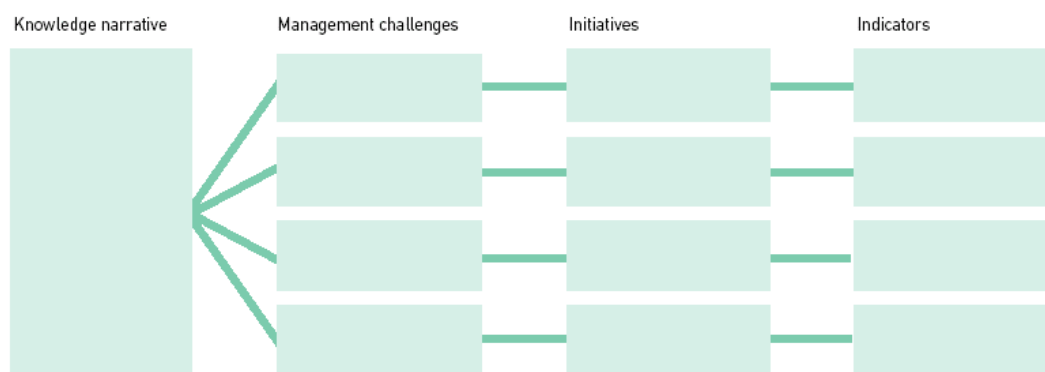
The above outlined approach differs from other approaches that often focus on the value relevance of specific intellectual assets, such as patents or R&D expenses (Lev & Sougiannis 1996; Lev & Zarowin 1999), without taking into account their interconnectedness. These ‘bottom-line’ approaches are often influenced by the more ‘traditional’ accounting perspective, approaches often focus on how various categories of intangible assets relate to financial performance. These quantitative studies consider intangible assets recognized in balance sheets such as goodwill, brand names or patents, and deferred charges, e.g. advertising, research and development or training costs (Hendriksen & van Breda, 1992; Cañibano *et al.*, 2000). Even though these approaches might give

us some interesting insights into the value of individual assets, the difficulty is that they do not address the interconnectedness of such assets and only address those assets for which information is publicly available in quantitative formats.

## Intellectual Capital Statements in Practice

In practice, intellectual capital statements contain various financial and non-financial metrics such as staff turnover, job satisfaction, training, turnover split on customers, customer satisfaction, precision of supply etc. (Bukh *et al.* 2001; Mouritsen *et al.* 2001a), as well as a substantial narrative part positioning the indicators within the context and strategic framework of the firm. The formats, lengths, and contents of intellectual capital statements vary. In this section we will refer to the Danish guidelines.

The guidelines recommend that a firm reports on its value creation potential and its strategy for knowledge management, including a specification of which knowledge resources are vital value drivers. Thus, the purpose of an intellectual capital statement is to communicate the value proposition, the key knowledge resources, the related management challenges the company is facing, as well as a set of indicators to track the initiatives (see figure 1).



*Figure 1. Intellectual capital statement template*

The value proposition is outlined in a narrative including the aim of the company's knowledge management. It does not only account for present performance, it also formulates a strategy for the company's know-how in the future. Three elements should be addressed in the knowledge narrative: (1) How to the products or services produced by the firm create value to its users; (2)



which knowledge resources are critical to deliver the described value proposition; and (3) the particular nature of the product or service.

The management challenges are a series of concrete activities in relation to the management of the knowledge resources. These activities concern the intellectual capital (e.g. employees, customers, processes or technologies) but most often a combination of these. In order to verify that the appropriate actions have been implemented, specific indicators are linked to each respective action. This allows to measure to which extent these have been implemented and thus document the realization status of its management challenges.

Together, the four elements represent an overview of the company's intellectual capital. The elements are interrelated, and their relevance becomes clear when put into context. The indicators report on initiatives. The initiatives formalize 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 users, and what knowledge resources are needed within the company.

### **The case of Maxon Telecom**

One example of how to use the Danish guideline is the company Maxon Telecom A/S (Mouristen et al, 2004). The Danish company 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. Further, the firm provides competent *sparring necessary for its Korean parent company* to supply 'communication, anytime, everywhere' to its customers.

As a 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 as necessary to create use value. Highly skilled employees are seen as 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 requires knowledge of existing as well as future technologies.

The mobile phone market demands 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 organized 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 Maxon Telecom must strengthen through initiatives.

Some of the management challenges are about developing existing knowledge resources, such as personal knowledge and project management skills, which deliver ‘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.

Knowledge narrative	Management challenges	Initiatives	Indicators
<ul style="list-style-type: none"> <li>Product or service: Maxon Telecom develops and designs mobile phones based on cutting edge technology.</li> <li>Use value: Competent sparring to provide ‘communication, anytime, anywhere’.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Product development</li> </ul>	<ul style="list-style-type: none"> <li>Check users’ expectations and satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>Number of satisfaction studies (and market surveys) conducted</li> <li>Customer satisfaction with quality</li> <li>Number of projects ordered in the year</li> </ul>
	<ul style="list-style-type: none"> <li>Improvement of personal skills</li> </ul>	<ul style="list-style-type: none"> <li>Conduct employee performance reviews</li> <li>Establish and implement competency development plans</li> <li>Implement tutor schemes</li> <li>Implement management training</li> <li>Implement CASE training</li> <li>Implement leadership coaching</li> </ul>	<ul style="list-style-type: none"> <li>Absence</li> <li>Rate of completion of training needs outlined in the MUS conclusions</li> <li>Employee satisfaction with course or training initiatives</li> <li>Number of performance reviews held on schedule</li> <li>Employee satisfaction</li> <li>Employees’ assessment of their colleagues’ interpersonal skills and competencies</li> <li>Staff turnover</li> <li>Number of employees with competency development plans</li> <li>Number of employees on job rotation, being promoted or posted abroad</li> <li>Number of employees who believe they can develop in Maxon, both professionally and personally</li> <li>Number of employees who see their immediate superiors’ as being capable of motivating them satisfactorily</li> <li>Number of new employees in proportion to number of tutor schemes</li> </ul>
	<ul style="list-style-type: none"> <li>Ensuring products are on-time</li> </ul>	<ul style="list-style-type: none"> <li>Launch Microsoft Projects training</li> <li>Implement project organisation</li> <li>Implement teambuilding process</li> </ul>	<ul style="list-style-type: none"> <li>Number of projects implemented on time</li> <li>Number of projects kept within the agreed budget</li> <li>Number of junior project managers recruited in-house</li> <li>Number of employees approved to work as project managers</li> <li>Satisfaction with distribution of responsibilities between and within departments</li> <li>Employees’ satisfaction with the ability to act with speed</li> <li>Number of project groups with under 16 members</li> <li>Number of project groups without own project room</li> </ul>

	<ul style="list-style-type: none"> <li>• Creating knowledge of and competencies within current and future technologies</li> </ul>	<ul style="list-style-type: none"> <li>• Train people in new technologies</li> <li>• Introduce roadmap</li> <li>• Participate in conferences</li> <li>• Being a part of operators' and development houses' networks</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in CEBIT and Cannes</li> <li>• Number of co-ordinating meetings a year</li> <li>• Number of departmental managers/technology scouts in operators' networks</li> <li>• Number of developers in external networks</li> </ul>
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*Figure 2. Extract of Maxon Telecom's intellectual capital statement 2002*

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 also address the systematic development of the competencies identified as necessary to supply use value; which includes, in this case, personal and specialist competencies and project management competencies.

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

## **A Look into the Future**

Although most academic studies conclude that more information in the marketplace lowers the cost of capital “academic studies are not really necessary to reach this conclusion”, as the former FASB Board member John Foster stated in his reflections on the FASB and the capital market, because “[m]ore information always equates to less uncertainty, and it is clear that people pay more for certainty” (Foster, 2003). It is, however, not sufficient that credible, reliable and neutral information is conveyed to the capital market. The information should also be relevant in relation to assessing aspects of the firm's current and future performance, and the investors and analysts should be able to comprehend this information.

Traditional accounting rules have changed over the past decade in acknowledgement of the increasing importance of intellectual resources. In 2005, when the international reporting standards replace national rules (for companies listed on regulated markets within the EU), IAS 38 will be the proposed international standard for reporting intangible assets. IAS 38 specifies that a company can only recognize an asset if it is: identifiable; controlled; it is probable that future benefits specifically attributable to the asset will flow to the enterprise; and cost can be reliably measured. If the item does not meet the above criteria, IAS 38 requires the expenditure on this item to be recognized as expense when it is incurred. It also requires the following items to be expensed: Internally generated goodwill, start-up, pre-opening and pre-operating costs, training costs, advertising cost, relocation

costs. It is clear from this list that much of what is commonly regarded as intellectual capital would not in fact pass the recognition test. Even if we accept that for the time being intangibles are unlikely to appear in published balance sheets, we are still left with a problem of how to report, measure and manage what are undoubtedly important value drivers in today's businesses.

Experience suggests that intellectual capital statements can be used as a tool for conceptualizing the important role and value contribution of intellectual capital. The purpose of the intellectual capital statement is often twofold, as it functions as a *management tool* used internally in the firm and as a *communication tool* used to communicate how the firm works to develop its knowledge resources in order to generate value. Developing such statements improves the internal understanding of which resources are important and how they can be combined and managed to create value. It might therefore help to develop a resources-based or knowledge-based strategy and monitor the implementation of such a strategy. Furthermore, any external communication of intellectual capital will help to close the current information gap. Any company producing intellectual capital reports today is an innovator and early mover. The reasons for reporting might be to gain an advantage for being recognized as an innovator and therefore these reports might act more as a marketing tool than a serious reporting tool. Intellectual capital statements may help to communicate the importance of employees and partners, which in turn might attract new employees or partners, and in some cases it may even attract customers. However, this advantage only last as long as there is a small group of companies producing such reports.

We are currently facing an information gap with serious implications, and it seems that traditional accounting does currently not offer any light at the end of the tunnel. Intellectual capital statements are one way to overcome this gap. However, intellectual capital statements are complex ideas that require a good deal of investment to be understood, it is obvious that at this stage the idea is fragile. Firms may think that they publish meaningful reports, but if readers do not see this meaning because they lack understanding then it is not clear that the firm will be motivated to continue. And if managers are not able to craft a knowledge management strategy that can survive in times of turbulence, then it is not clear that relations are necessarily taken seriously.

Therefore, in order for intellectual capital reports to have a future two things have to be in place:

1. The audience of intellectual capital statements will have to appreciate them e.g. through training and an assurance that reports are not 'mere marketing'.

2. Managers will have to be able to formulate a knowledge-based strategy and communicate and 'prove' the value relevance of such a strategy. Organizations need to be serious about their long-term value creation even when it is necessary for economic reasons to postpone investments or reallocate intangible resources. The financial strategies and the knowledge strategies have to be integrated even though their time horizons differ.

In its current format intellectual capital statements offer a way to address the complexities of commercial reality, however only experimentation with these tools will allow us to improve these tools, identify best practice, and maybe arrive at a point of convergence between the disparate approaches. At the moment intellectual capital statements are fragile and have to be supported if they are not to become extinct.

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