ABSTRACTS OF MAIN PAPERS PUBLISHED BY E*KNOW-NET PARTNERS DURING THE PROJECT.

Ballester, M., M. García-Ayuso y J. Livnat (2003) The economic value of the R&D intangible asset. *European Accounting Review.* Vol. 12, nº 4, pp. 605–633

This study utilizes firm-specific time-series data to estimate the economic value of the research and development (R&D) expenditures that investors consider an asset to the firm. The study uses a modification of the Ohlson (1995) model to estimate the persistence of abnormal earnings, the proportion of current R&D expenditures that represents a source of future benefits to the firm and the amortization rate of that asset. The parameters are estimated from time-series data of market and book values of equity, earnings and R&D expenditures. The study further compares the firm-specific estimates with those resulting from an application of a cross-sectional estimation procedure based on all available companies in the sample and industry-specific subsamples. Results indicate the existence of significant differences in some two-digit SIC code industries between the time-series and the cross-sectional estimates of the parameters and the economic value of the R&D asset. Differences in the capitalization parameter are associated with the growth in R&D, the profitability of the firm, R&D intensity and the concentration of the industry. Differences in the persistence of earnings are related to the concentration ratio. Finally, differences in the estimated economic value of the R&D asset are associated with the profitability of the company as measured by its return on assets. We further compare the associations between the three different estimates of the R&D asset and subsequent stock returns, as well as the contemporaneous difference between the market and book value of companies. Results indicate that the time-series estimates of the R&D asset show stronger associations with both variables, followed by the intra-industry and the cross-industry cross-sectional estimates. Overall, our results provide evidence that market participants behave as if R&D expenditures have significant future economic benefits to the firm, and show that the cross-sectional and time-series approaches followed when assessing its economic value provide significantly different estimates.

Bukh, P.N. 2003. The relevance of intellectual capital disclosure: A paradox? *Accounting, Auditing & Accountability Journal*, Vol. 16, No 1 pp. 49-56.

Many firms have started disclosing information on intellectual capital. Financial analysts, however, ask for more disclosure related to strategy and often find intellectual capital statement less relevant. Drawing on results from a study of disclosure of information on intellectual capital in Danish initial public offering (IPO) prospectuses, this commentary argues that the perceived irrelevance of intellectual capital is somewhat paradoxical since intellectual capital reports and recent prospectuses share remarkable similarities with respect to the intellectual capital indicators disclosed. Further, the commentary argues that, for intellectual capital disclosure to be perceived as relevant from a capital market perspective, the information should be disclosed as an integral part of a framework illuminating the value creation

Bukh, P.N.; M.R. Johansen & J. Mouritsen (2002). Multiple integrated performance managementt systems: IC and BSC in a software company. *Singapore Management Review* , vol. 24, no 3

Both intellectual capital reports and balanced scorecards relate corporate strategy and integrated performance management systems, and they both expand reporting beyond the financial view with categories of customers, processes, and employees. This paper discusses their differences and complementarities based on an analysis of their use in one mid-sized Danish software company, Systematic Software Engineering. It has published intellectual capital statements tor two years and recentfy implemented a balanced scorecard. The intellectual capital report communicates externally as well as internally about the firm's knowledge management activities, and the balanced scorecard creates accountability in software projects. It is suggested the two types of extended reporting are different and yet complementary when applied in this firm. This includes a marked difference in use ot indicators.

Bukh, P.N., & U. Johanson. (2003) Research and knowledge interactions: Guidelines for IC reporting. *Journal of Intellectual Capital* Vol 4, nº 4, p. 576-587

This paper discusses the differences and complementarities of the two guidelines for managing, measuring and reporting intellectual capital (IC) that has been developed by the Meritum research group and the Danish Ministry of Science, Technology and Innovation, respectively. IC is closely related to knowledge management and the guidelines describe how to identify a company’s knowledge management strategy including the identi®cation of its objectives, initiatives and results in the formation, application and development of the company’s knowledge resources. The guidelines also show how to measure IC and communicate the strategy to the stakeholders. The paper outlines the common background for the guidelines, the content of the guidelines and concludes after a comparison with a discussion of the need for research in the area and improvement of future guidelines.

Bukh, P.N.D.; H.T. Larsen & J. Mouritsen, J (2001). Constructing intellectual capital statements. *Scandinavian Journal of Management*. vol. 17, no. 1, pp. 87-108

This article analyses the development of intellectual capital statements in 19 Danish "rms. These statements are discussed in order to show how they work in relation to knowledgemanagement activities. Based on survey and interview data from the "rms that have collaborated in developing intellectual capital statements, the article focuses on why and how these "rms embarked on producing such statements. Three brief case studies illustrate the complexities of this type of reporting, which integrates a three-way relationship between narratives/stories, sketches, and metrics.

Cañibano, L & P. Sánchez. (2003). Measurement, management and reporting on intangibles: State of the art. Paper presented at the American Accounting Association Annual Meeting. Honolulu, USA, August 3-6. Forthcoming at Accounting and Business Review 2004.

This paper attempts to update the article “Accounting for Intangibles: A literature review” published at the Journal of Accounting Literature, 2000. Volume 19, through the analysis of the company cases and research papers presented at the International

Conference “The Transparent Enterprise. The Value of Intangibles” held in Madrid (Spain), November 2002.

The paper reviews the conceptual problems and the theoretical and empirical evidence in relation to the following issues: Management and measurement of intangibles and intellectual capital; and Disclosure, Reporting and Capital Markets. We discuss how these issues can be applied, not only to companies, but to higher education and research institutions as well. In conjunction with research papers companies case studies are also reviewed.

The point of view of various stakeholders (policy makers, financial analysts, regulatory bodies, etc.) is taken into consideration in most of the sections of the paper. Finally, suggestions for future research are provided.

Catasús, B. and Gröjer, J.E. (2003) Intangibles and credit decisions: Results from an experiment. *European Accounting Review* Vol. 12, No. 2 327-358

The question in this paper is whether the inclusion of intangibles is meaningful in a credit decision context. To examine this issue we conducted an experiment with forty loan officers. The loan officers were presented with a situation of a company that required a credit of 5 million Swedish kronor. Half of the loan officers were given a traditional annual statement in which intangibles were treated as costs while the other half received a balance sheet in which brand, R&D and education were capitalized. The loan officers were asked to give their opinion regarding the credit decision and the importance of extra information. They were also confronted with four short cases where extra information about the company appeared. Statistical analysis revealed that none of three hypotheses relating to the statement that 'accounting for intangibles does not matter' could be falsified. Still, the acquired qualitative data that emerged from the study makes it possible to suggest another finding. The study shows that accounting for intangibles is accepted if the accounts were seen as reliable. The conclusion is that if it is possible to create reliable data about intangibles, accounting for intangibles is meaningful for credit decisions

Chaminade, C.; Cañibano, L. (2003) La gestión de los Intangibles y el Aprendizaje Empresarial [Management of intangibles and organizational learning] en Casado, J.L. (Ed), en El “desaprendizaje” organizativo, Ariel, Barcelona.

The main argument of the article is that organizational learning is linked to the ability of the organisation to manage its intangible resources; to assess the impact of those intangible resources of the value creation processes of the firm. Thus, the knowledge-based firm must be capable of identifying, measuring and managing its intangible resources. The purpose of this article is to analyse some of the available tools and discuss their impact on firm performance.

The article starts with a revision of the main international initiatives in the valuation of intangibles, both at micro and macro level. Then it describes the European experience in the development of a set of Guidelines for the Management and Reporting of Information on Intangibles. Both the internal management tools and the external reporting mechanisms are discussed, and the implications for financial analysts and capital market are addressed. The article concludes with the implications of the valuation of intangibles for organisational learning.

Chaminade, C. & Johanson, U. (2003) Can guidelines for Intellectual Capital be considered without addressing cultural differences? *Journal of intellectual Capital,* 4 (4), pp. 528-542

The aim of the present article is to put culture on the agenda when discussing and working with the development of IC reporting and IC management. Differences between Spain and Sweden in the Meritum work are discussed in relation to (1) The interest and experience of IC among firms; and (2) The way the firms develop IC management and IC reporting. In this article we propose that culture might affect the assumptions of knowledge as well as the creation and the adoption of new knowledge. Thereby culture may determine the emergence of IC management and reporting. However, there are no national cultural differences with respect to the development of IC management and reporting.

Chaminade, C.; Roberts, H. (2003) What it means and what it does: a comparative analysis of implementing intellectual capital in Norway and Spain. *European Accounting Review*, 12:4, pp. 733-751

The implementation of the Intellectual Capital concept at firm level introduces new vocabulary to the existing language set. Firms are attempting to make sense of the concept and, in the process, operationalize it in terms of specific management tools. This paper provides a comparative analysis of Intellectual Capital trajectories in Norway and Spain. Although the implementation designs are different, (selected SMEs and sector in Norway and more non-selected in Spain), the paper finds that a dominantly accounting perspective can lead to an excessive focus on measurement issues and little attention to management processes. Alternatively, introducing IC with a broader and less defined focus might help newcomers to experiment with the concept in a more open minded way. In non-experienced firms the entrance point matters, as it defines the meaning for new words and concepts such as intellectual capital or intangibles.

García-Ayuso, M. (2003a). Intangibles: Lessons form the past and a look into the future. *Journal of Intellectual Capital* Vol 4, nº 4, p. 597-604Garcia-Ayuso, M. (2003). Factors explaining the inefficient valuation of intangibles. *Accounting, Auditing & Accountability Journal.* 16(1)

Over the past few decades, Intangibles have become a major concern not only for academics conducting research in a number of areas of human knowledge, but also for business managers, investment and credit analysts, auditors, investors and other stakeholders and, policy makers.
Based on the evidence provided by recent research studies and the experiences of companies and policy makers in recent years, this paper provides a summary of the most relevant aspects of our current knowledge on intangibles and suggests some directions for future research on the intangible determinants of the value of companies and for the improvement of management practices and policy making.

García-Ayuso Covarsí, M. and J.A. Rueda Torres (2002), Anomalies in the Behavior of the Spanish Stock Exchange: A Study on the Relevante of the E/P and the B/M Ratios for Investment Analysis, *Análisis Financiero*, 1: 20-29

Based on a simple of Spanish listed companies over the period 1991-1998, we test the ability of the EP and BM ratios to predict risk-adjusted stock returns. Our results cast doubts on the existence of an *EP-effect* or a *BM-effect* in the Spanish stock market. However, when the test of both anomalies is restricted to January, the magnitude of the positive association between the EP ratio and abnormal returns increases remarkably, although it is not statistically significant. On the other hand, the *BM effect* becomes significant in January.

Guthrie, J.; Johanson, U.; Bukh, P.N. and M.P. Sánchez (2003). Intangibles and the transparent enterprise: New strands of knowledge. *Journal of Intellectual Capital*, Vol 4, nº 4, p. 429-440

Examines the new challenges that have been posed by the information society and the new demands posed on management. The term ªknowledge-based economyº has become universal, the rules of business are being rewitten and the industrial era enterprise models are no longer adequate to meet the dynamic condition of a changing world market. Companies have become aware of the importance of managing the external communication since this issue is considered important for the company's ability to generate value. Various studies of investors and analysts' request for information indicate a substantial difference between the amount of information found in companies' annual reports and the type of information demanded by the market. The articles in this special edition of Journal of Intellectual Capital represent main current research activities into the area of intellectual capital (IC) in Europe and also Australia. The articles represent the wide scope of research that is being carried out in the expansive ®eld of the measurement, analysis and management of IC.

Guthrie, J.; Petty, R. and Johanson, U. (2001) Sunrise in the knowledge economy: managing, measuring and reporting Intellectual Capital. *Accounting, Auditing and Accountability Journal*, vol 14, no 4, pp 365-382.

There are two aims of this introductory article: first, to draw attention to the gaps in the research literature; and second to stimulate further accounting and management research regarding intellectual capital by posing several possible research questions. Suggests that critical and social accounting academics have a vital role to play in making visible a number of important social issues that stem from understanding better the value of intellectual capital within both organisations and the wider social fabric. Also looks to possible new ways of accounting for intangibles within public and private sector organisations.

Holland, J. and Johanson, U. (2003) Value relevant information on corporate intangibles - creation, use, and barriers in capital markets - "Between a rock and a hard place". *Journal of Intellectual Capital*, Vol 4, nº 4, p. 465-486

The article reveals a need for greater understanding and use of corporate intellectual capital (IC) information within two connected capital market areas. Firstly with regard to the conceptualisation and valuation process these capital market agents (analysts and fund managers) conduct. Secondly, within the capital market agents´ own value creation chain . The concept of the value creation chain is combined with an analysis of the barriers faced by capital market agents represented by fund managers and analyts. These barriers are proposed to comprise knowledge, uncertainty, ownership and management problems. In addition, cultural pressures within analyst and fund manager communities are viewed as contributors to information barriers. Such problems are exacerbated by additional market induced problems of severe time constraints and conflicts of interest.

Hussi, T., (2003b) Reconfiguring Knowledge Management. Combining Intellectual Capital, Intangible Assets and Knowledge Creation. Discussion Papers, no. 849. The Research Institute of the Finnish Economy ETLA Helsinki. To be published in *Journal of Knowledge Management* in 2004.

Intellectual Capital, Intangible Assets and Knowledge Creation are all concepts that are strongly linked to the phenomenon of Knowledge Management. Yet they have only been parallel to each other. This controversy between different approaches has also resulted in vague definitions of Knowledge Management. This paper will critically discuss the definitions of these concepts. The analysis shows that different concepts actually focus on different angles of the topic. Based on this, a model will be built that ties all of them into a unitary entity. At the same time, this model gives a reconfigured definition of the concept of knowledge management.

Hussi, T. and Ahonen, G. (2002) Managing intangible assets – a question of integration and delicate balance. *Journal of Intellectual Capital* Vol. 3 No. 3, 277 - 286.

The relevance of intangible assets for financial performance is getting more widely accepted. There is also some convergence about the conceptual structure of intangibles. What has not been underlined enough yet is the synergic nature of different types of intangibles. In this paper, it is argued, in the light of a case study of nine Finnish companies, that the intangibles form a value chain of generative and commercially exploitable intangibles. Furthermore, it is argued that each company at each time has an emphasis on a certain type of intangibles, sometimes even neglecting others. The paper seeks to propose that it is important to identify the primary intangibles and their current relationships with other forms of intangibles. The management of intangibles is hence a matter of integration and delicate balance.

Johanson, U. (2003) Why are capital market actors ambivalent to information about certain indicators on intellectual capital? *Accounting, Auditing and Accountability Journal,* vol 16, no 1.

An increasing body of literature is documenting a high pay off from human capital investment. However, different studies of the interest from capital market actors to take information about intangibles into account reveal contradictory findings. The interest with respect to intellectual capital indicators is ambivalent. Why? In the present article five reasons to this ambivalent interest are discussed; Capital market actors may; (1) not understand the importance of intangibles (the knowledge problem); (2) not trust the indicators with respect to validity and reliability (the uncertainty problem); (3) exaggerate the risk of loosing the intangible resource (the ownership problem); and (4) not feel secure about the management's capability of taking action upon data (the management problem). However, the most important deterrent to account for is may be (5) the mentality of capital market actors as a group.

Johanson, U, Liyanage S., and Hansson, B. (2002) Management of Knowledge and Intellectual Capital. Special Issue of *Singapore Management Review*, vol 24, no 3, pp. 1-6.

Intellectual capital is here to stay! Inevitably, the human history is full of intellects who have in many ways contributed to the rise and fall of nations and societies. The Roman Empire was built on strategy and perseverance. China's civilisation was built on hard work and dexterity. In all cases, knowledge (and knowing) was the driver of the growth of civilisations. The history is littered with successes and failures of knowledge development and application. Many entrepreneurs have contributed in several ways to keep their mark in the quest to accumulate knowledge and intellectual capital. The knowledge and intellectual capital has taken nations from somewhat from a subsistance living to overzealous lifestyles.

What we are about to embark is a journey of "what intellectual capital means to others and ourselves?" The collection of papers in this Special Issue was selected largely from a meeting of dedicated group of intellects and practitioners who have attended 16th Nordic Academy of Management Conference took place in July 2001 in Uppsala Sweden. At this conference, there were discussions about current status and future of measuring intangible assets in firms and its relationship with the formation of intellectual capital. Corporate approaches to the measurement and reporting of intellectual capital was discussed among other things and the implications on knowledge management and the management of intellectual capital were considered in the process of formation of knowledge assets for a firm's future growth. There is no set model for reporting intellectual capital or a no bottom-line indicators to determine the value of firm's intellectual capital (Mouritsen et.al.,2002). A firm's true value do not captured in the financial statement either. It is therefore important to examine the value of intangible assets such as knowledge and intellectual capital assets.

This Special Issue is organised for the practitioners and academics who have been working on intellectual capital management. The Special Issues brings together varied experiences in managing intellectual and knowledge capital in different countries. The collection of the papers covers both theoretical issues and practice application of intellectual capital reporting and measurement, and the organisational learning and knowledge accounting measures. The papers also provide an insight into some of the important experiential and theoretical understanding of knowledge and intellectual capital. We have organised this Special Issues to establish the need for measuring and reporting intellectual capital, difficulties and constraints of measuring knowledge and intellectual capital and methods of overcoming learning and capability development and also role play of Government and private institutions in managing intellectual and knowledge capital.

Johanson, Ulf, M. Mårtensson & M. Skoog. (2001a). Mobilizing change through the management control of intangibles. *Accounting, Organizations and Society* Vol. 26, No 7/8, pp. 715-733.

This qualitative study explores the management control of intangibles in three Swedish companies. The present analysis is discussed in terms of four theoretical perspectives, namely, evolutionary, action, organizational learning and structuration theory. The results indicate that such enablers of performance as customer and employee perceptions of individuals and organizational and relational competence are the key attributes that firms address.

Equally important, however, are different routines that facilitate learning and the transformation of knowledge into action. Routines additional to surveys include statistical analysis, benchmarking, dialogues, salary bonuses, and contracts.

Johanson, Ulf, M. Mårtensson & M. Skoog. (2001b). Measuring to understand intangible performance drivers. *European Accounting Review* Vol. 10, No. 3, pp. 407-437.

The present qualitative study explores what 11 Swedish organizations have systematically worked at to increase the understanding of the importance of intangibles as performance drivers. The present analysis is accomplished using a combination of evolutionary theory, knowledge-based theory and organizational learning. The results indicate that assets in an accounting sense seem to be of less interest than perceptions of activities that enable future performance. These "enablers" are often customer and employee perceptions of individual, organizational, and relational competence. The way for the firms to ascertain a continuous organizational learning process with respect to the value creation chain is to measure intangibles as well as to maintain organizational routines that ensure the transformation of measurement results into action.

Kreiner, K. & Mouritsen, J. (2002), Knowledge Management as Technology – Making Knowledge Manageable, in Czarniawska, B. & Sevón, G. (eds.) *The Northern Lights: Organization Theory in Scandinavia* (Stockholm: Liber, forthcoming)

Our focus on knowledge management, and we consider management a craft, and thereby approach it from the perspective of tools and skills applied according to pragmatic instrumental rationality. Understanding management entails understanding the choice of things to be accomplished, as well as the tools and skills necessary to do so. Below we discuss some tools and rationales for making elusive parts of the organization manageable. By analysing such tools that managers devise and employ we hope to be able to deduce the specific knowledge on the basis of which this managerial craft is practiced (the technology, so to speak). Thus, calling management a technology is both a strategy and an ambition. It is a strategy because it chooses tools and skills as the point of departure. And it is an ambition because the aim is in the end to appreciate the instrumental rationale behind the tools and their practical use (that is, the knowledge packaged into the tools and skills).
In our specific case of knowledge management, knowledge is not only the foundation for managerial practice, but also the object of such managing efforts. We need not consider in general philosophical terms what knowledge is, and can concentrate on what knowledge becomes when approached from the perspective of the pragmatic instrumental rationality of management. In a nutshell, our interest in knowledge is knowledge as resources that may be more or less productive and resourceful to the organization.
For pragmatic reasons (more than ideational ones) we will talk about knowledge as the object of managerial efforts, and talk about technology as the tools and skills employed in the managerial efforts.

Marr, B.; Gray, D. and A. Neely (2003) Why do firms measure their intellectual capital? *Journal of Intellectual Capital*, Vol 4, nº 4, p. 441-464

It is now generally believed, within the current literature, that an academic and practitioner focus on intellectual capital (IC) is important and that the measurement of a company's intangibles provides real business bene®ts. However, it is essential for researchers in the ®eld of IC to be able to justify these newly formed theoretical assumptions through rigorous empirical testing. This paper reports on the results of a systematic investigation into the theoretical underpinnings of why ®rms measure their IC and existing empirical evidence that helps to prove that the measurement of IC is really worthwhile. The paper then critically reviews the state of research evidence in the ®eld. The major ®nding of this paper is that the majority of research within the IC measurement ®eld is at the theory building stage, and that very little of the proposed measurement theory has yet been fully tested. This paper outlines possible avenues scholars might pursue in order to further the development of the IC measurement ®eld.

Marr, B, Schiuma, G., Neely, A. (2002) Assessing strategic knowledge assets in eBusiness, *International Journal of Business Performance Management,* Vol. 4 No 2-4, pp 279-295

Capabilities and their underlying knowledge assets represent a major competitive resource for knowledge-intensive organisations such ase-businesses. The research presented in this paper utilises a series of case studies to identify the key knowledge assets for e-businesses. The paper suggests the Knowledge Assets Map as a framework to identify and manage key capabilities and key assets in today's economy. The Knowledge Asset Map identifies the following six areas as critical: stakeholder relationships, human resources, physical infrastructure, culture, practices and routines, and intellectual property. Furthermore, the paper provides managerial guidelines to design knowledge assets metrics.

MERITUM (2002) *Guidelines for managing and reporting on intangibles*. Eds; Cañibano, L., Sanchez, P.; Garcia-Ayuso, M.; and Chaminade, C. Vodaphone Foundation

It is widely accepted nowadays that since the end of the 20th century the Economy has become significantly different from the industrial economy previous to the mid-20th century. Economists consider that the main feature of this new economic environment is the essential role played by intangibles as a fundamental determinant of value creation in business companies. Since management information systems and accounting principles and standards do not allow for a full recognition and disclosure of a wide range of intangibles (acquired or internally produced), many academics and professionals have stated in recent years that management, investment and credit decisions made on the basis of financial statements that do not reflect the intangible determinants of corporate value, may result in significant economic losses both for firms and for their suppliers of goods, services or capital.
Since there is presently no common international framework for the identification, measurement and disclosure of information on the intangible determinants of corporate value, but only scattered efforts around the world, it seems appropriate to devote efforts to the development of a set of general guidelines to help companies identify, measure and monitor their intangible sources of value. The objective of these guidelines is to increase management efficiency and to assist companies in the process of producing and disclosing timely, relevant and comparable reports, that allow their providers of capital to draw efficient estimates of the future benefits and risks associated with their investments opportunities.

The Guidelines presented in this document attempt to provide a common framework for the identification, measurement and control of intangibles as well as to suggest criteria for the disclosure of information on the intangible determinants of the firm's value.
Therefore, they are addressed both to firms in the initial stages of the design and implementation of an Intellectual Capital Management System (ICMS) as well as to firms with some previous experience, which are concerned about the external disclosure of the information on intellectual capital they already produce and use for internal purposes.
The Guidelines attempt to provide assistance initiating firms in the process of developing their ability to identify, measure, manage and value their intangible assets.
The next section provides justification for the Guidelines, section three presents a conceptual framework comprising a set of definitions and a classification of intangibles which will provide the basis for the design and implementation of the proposed management system.
Based on an extensive analysis of best practices observed in a set of European companies, section four introduces a model for the identification, measurement and management of intangibles. The model describes the three phases to follow in the design and implementation of a corporate management system for intangibles: identification, measurement and action.
Sections five and six could be of special interest both for the inexperienced firms and for those with experience in the management of intangibles but interested in improving their ability to disclose relevant information on the intangible determinants of their value. Section five highlights the importance and describes the integrating elements of the Intellectual Capital Report, which is suggested as a tool for the disclosure of information on intangibles.
The report is composed of three elements: First, a Vision of the Firm, comprising a statement of the management team on the corporate strategic goals and their related intangibles; second, a Summary of the Intangible Resources the company has and of the Intangible Activities carried out to develop, maintain or increase them; and third, a System of Indicators to measure resources owned and activities executed. Finally, section six contains some information that could be useful in practice for the preparation and disclosure of an Intellectual Capital Report.

Mouritsen, J. 2003. Intellectual Capital and the capital Market: The Circulability of Intellectual Capital. *Accounting, Auditing & Accountability Journal*. 16(1):18-31.

This paper argues that intellectual capital and intangible assets are difficult resources for two different reasons. First, intellectual capital and intangibles assets are not (yet) disentangled by the institutions of the capital markets, and therefore they are not (yet) translatable with any degree of confidence into predictions about stock price behaviour. Second, intellectual capital and intangibles are not absent from capital market intelligence; they are just typically translated into financial form, when they are presented to actors in the capital markets, even if in forms that are themselves 'invisible'. The capital market may have limited understanding of intellectual capital, but it is also always seeking to understand the complexity of business and (im)possible futures. Its appreciation of intellectual capital is therefore fragile.

Mouritsen, J., Larsen, H.T. & Bukh, P.N.D. (2001a) Intellectual Capital and the Capable Firm: Narrating, Visualising and Numbering for Managing Knowledge*, Accounting, Organizations and Society* Vol. 26, No. 7-8, pp. 735-762

Intellectual capital statements are 'new' forms of reporting whose object is knowledge management activities. Based on 17 .rms' work to develop intellectual capital statements, this paper analyses them as managerial technologies making knowledge amenable to intervention. Aspects of actor-network-theory are mobilised to suggest that the intellectual capital statement is a centre of translation, which mobilises knowledge management via three interrelated elements: knowledge narratives, visualisations and numbers. Intellectual capital statements report on the mechanisms put in place to make knowledge manageable. Writing intellectual capital is a local story, which often concerns making knowledge collective and a process of allowing it to be oriented towards organisational ends. In such a story, knowledge is about a .rm's capabilities and abilities to make a di.erence to a user. When writing an intellectual capital statement, .rms locate employees, customers, processes and technologies and orient them towards a user. However, the statement as such is a means of 'dis-locating' knowledge resources making them amenable to intervention. There are certain broad types of intervention that allows a classi.cation of strategies of intervention to be proposed. These terms are portfolio management, improvement activities and productivity. Such forms of intervention circumscribe the aspiration to transform knowledge from something internal to the person into something that is the e.ect of a collective arrangement. They allow—through intellectual capital statements—the dark, tacit knowing of individuals to come into the open space of calculation and action at a distance

Mouritsen, J., Larsen, H.T., Bukh, P.N. & Johansen, M.R. (2001b) Reading an intellectual Capital Statements: Describing and Prescribing Knowledge Management Strategies, *Journal of Intellectual Capital* Vol.2, No. 4, pp. 359-383

This paper introduces a framework for analysing intellectual capital statements. It is suggested that the three-way model of intellectual capital (human, organisations and structural) can be developed in its descriptive and its prescriptive qualities. Another model is offered which relate intellectual capital indicators to the firm's knowledge strategy. This IC accounting system describes the transactions that allow the firm's knowledge strategy to be implemented and it prescribes an agenda from which it is possible to monitor the effects around intellectual resources, to qualify and upgrade them and to survey the portfolio of intellectual resources. An example of Systematic Software Engineering's two intellectual capital statements from 1999 and 2000 is used to illustrate how intellectual capital statements may be read from this perspective.

Mouritsen, J. & Kreiner, K., Not for Profit – For Sale. Management Control in and of an Internet Start-Up Company, in Bhimani, A. (ed.) *Management Accounting in the Digital Economy* (Open University Press, forthcoming)

This paper analyses the short life of an Internet-company. It focuses on the mobilisation of management controls that helped the company to move beyond the start-up phase into a more "normal-business" phase. It finally centres on repeated attempts at making the company disappear again – until it finally did disappear in the aftermath of a successful merger.

There is a paradox in that disappearance, not survival, is the ultimate success of an Internet start-up company. The development of management controls and other types of institutionalisation are not simply driven by a logic of operational efficiency, i.e. of becoming profitable. It is also driven by a strategic logic of becoming sellable. To be sellable, companies need to become real: in the eyes of potential buyers to be recognized as entities that possess complementary competencies and intellectual capital. Only then will they look attractive to buy. Management controls communicate the sellable proposition that competencies are linked and integrated into a rational and transferable whole.

Our case study does not allow us to claim that the motif of the entrepreneurs was to make the start-up sellable. Becoming a real entity (a company) is a process conventionally described as institutionalisation. We develop and explore the supplementary gaze on this process and claim that the »not for profit; for sale« logic of Internet-companies will change the understanding of the logic behind introducing traditional managerial controls into an anarchistic start-up company.

Randi, Lunnan & Barth, Theodor (2003) Managing the Exploration vs. Exploitation Dilemma in Transnational "Bridging Teams", ***Journal of World Business*****, May.**

In this paper we explore the dilemma between exploitation and exploration in dispersed "bridge-teams," i.e., teams in a firm working closely with an external partner. Based on the seminal insight by March (1991) and the learning model developed by Crossan, Lane, and White (1999), we set out to explore what type of learning is generated in teams and to what extent this learning is captured by the firm. We present four cases from two firms giving some variety in learning approaches. Based on this insight, we argue that characteristics of the activity being performed, the team itself and the firm are influential relating to what is learned and how much is shared. We argue that teams that are located at different locations and involving many nationalities have higher exposure to a variety of rich knowledge, but that the process of integrating this learning into the firm is more difficult due to distance leading to lower visibility and central managerial attention.

Roberts, H. (2003) Rules of Thumb in building and using indicators for knowledge transfer and how to use these indicators. in Nordic Industrial Fund ***How to develop and monitor your Companys Intellectual Capital – Tools and Actions for the competency-based Organisation*****". Norway: Nordic Industrial Fund.**

What does an indicator that shows a falling average age of your staff tell you? What does an increase in customer satisfaction mean? And what does an increase in new cross-organisational groups on customer service and product development tell you? The last one probably tells you about active exchange of knowledge, while the first two provide background information on the capacity of the company.

This chapter is about action indicators, the ones that refer to processes and things you do. In other words: indicators that deal with the transfer of knowledge, how you can build these indicators and put them to use. For other types of indicators that refer to inputs or to outcomes, examples and links are available in the appendix to this chapter.

Roberts, H., (2003) Management Accounting and Knowledge Production Process. ***Accounting in the Digital Economy*****, A. Bhimani (ed.), Oxford University Press, forthcoming 2003.**

Knowledge is receiving widespread attention as being the source of competitive advantage and of economic growth. Terms such as the knowledge society and the knowledge-based firm have entered our vocabulary, and efforts are ongoing to dissect the knowledge concept and understand how it comes into being, what it is made of and how it works. Efforts range from the epistemological to the utilitarian, from delineating its distinctiveness and its position within the social sciences to developing specific tools and concepts for knowledge management.

The purpose of this chapter is to address knowledge in a utilitarian sense, and consider how to make use of it for management purposes. Knowledge here is understood in terms of applying accounting onto the knowledge production process. It implies the consideration of knowledge as an object that can be accounted for as well as opened up for manipulation by accounting technologies. Specifically, knowledge is assumed to be a resource, and defined as a financial resource in accounting: it can be registered, manipulated, utilized, exchanged, and transformed.

The approach adopted here is to develop an accounting-based concept of the knowledge production process. As with accounting, it is in the use of knowledge that its modalities are best illustrated, and that the knowledge resource displays its distinctive characteristics. In that sense, the knoledge production process should be conceived of as a manufacturing process, in which new knowledge is made, resources are used, and a positive return is generated. In instances where the accounting framework or terminology does not suffice to capture in full what knowledge is and does, we revert to terminology from the strategy field. For reasons of historical predisposition; strategy has considered knowledge resource as well as the resource concept since competitive advantage has been discussed. Increasing advances in strategy theory address explicitly the discretionary role of management in the so-called resource-based theory of the firm, with the knowledge-based theory of the firm and the concept of dynamic capabilities as the relevant subtopics for the purpose of this chapter.

The chapter is structured as follows. First, we discuss knowledge as a resource, and fuse it with accounting interpretations around its registration, accumulation, allocation, and utilization. The discussion is centred around interpreting knowledge as intellectual capital. Second, we discuss the knowledge production process as such, and argue that it is based on relations and relational capital, with connectivity as a key concept. We will argue that its accountable element is the human capital that enters into productive exchange. Finally, we conclude by summarizing the main points and provide suggestions as to the interfaces between accounting and knowledge, using a Production process perspective.

Roberts, H. & Chaminade, C. (2003) "A deeper look into a Framework – The MERITUM Guidelines" in Nordic Industrial Fund *How to develop and monitor your Companys Intellectual Capital* – Tools and Actions for the competency-based Organisation". Norway: Nordic Industrial Fund.

One of the first things you should do when starting to work with IC in your company is to define a framework, since it will provide you with a master plan and structure to follow in your work.

In chapter 2 you were given an overview of four such frameworks or models. In the following you will become better acquainted with what it means to work with IC in practice by using such a framework, i.e. the Meritum Guidelines, which will be explained and their use exemplified.

The Meritum Guidelines were developed by an EU-supported research project – MERITUM – and they are based upon an extensive analysis of best practices observed in 100 European companies in six countries.

The Guidelines are made both for companies in the initial stages of designing and implementing an Intellectual Capital Management System (ICMS) and for companies with some previous experience, which are primarily interested in external reporting.
The Guidelines consist of:
• a *conceptual framework,* comprising a set of definitions and a classification of intangibles;
• a *management model* for the identification, measurement and management of intangibles, and;
• a *description of the integrating elements* of an externally disclosed Intellectual Capital report.
In short the *conceptual framework* provides the basis for the design and implementation of the subsequently proposed management model. The *management model* describes three phases to be followed in the design and implementation of a corporate management system for intangibles: identification, measurement and action. The *description of the integrating elements* of the IC report is helpful for companies interested in improving their ability to disclose relevant information on the intangibles that determine their value.

Skoog, M (2003) Visualizing value creation through the management control of intangibles. *Journal of Intellectual Capital*, Vol 4, nº 4, p. 487-504

Management control systems may differ markedly from organization to organization. However, the trend within many of today's organizations is to include new perspectives in their formal management control and accounting systems. This ongoing transformation of management control systems is partly driven by the notion that intangibles play an increasingly important role in an organization's value creation process and thereby has to be visualized to a greater extent than hitherto. Nowadays, customers, suppliers and other stakeholders are frequently incorporated into the value creation process of organizations. Together with the growing importance of other intangible resources, such as leadership, employee competence and internal business processes, this approach promotes a highly complex picture of the organizational value creation process. The aim of this paper is to analyze organizational value creation from a management control perspective and, based on a longitudinal case study of a Swedish bank, discuss possible key features of a management control system that enables organizations to understand and allocate attention to the value creation of the firm.

Thorbjörnsen, S. and J. Mouritsen (2003) Accounting for the employee in the intellectual capital statement. *Journal of Intellectual Capital* Vol 4, nº 4, p. 559-575

On the basis of three examples of intellectual capital statements that make the individual its central figure, this article discusses the role of individuals in knowledge creation. After all, it is often claimed that the individual is the "container" of knowledge and therefore, what it means to account for the individual is an issue. However, analysing these individual competence statements (intellectual capital statements), it is clear that the individual is never alone. It is always related to organisational purposes and the individual competency statement makes the individual an organisational entity because individual competency is related either to organisational bonus systems, to corporate revenues or to the organisational configuration of its knowledge resources. Through the individual competency statement, the individual is made an organisational entity.