A Consistent Assessment of Intellectual Capital in SMEs InCaS: Intellectual Capital Statement – Made in Europe

Kai Mertins and Markus Will
M.A., Fraunhofer IPK Berlin, Germany
kai.mertins@ipk.fraunhofer.de
markus.will@ipk.fraunhofer.de

Abstract: Globalisation and the accompanying increasing international competition put considerable pressure on European small and medium-sized enterprises (SME). The key to competitiveness increasingly appears to be the way people combine, master and commercialise their know-how. Hence it is crucial for European SMEs to utilise and manage knowledge efficiently in order to obtain a competitive advantage. While different national approaches on the management of Intellectual Capital (IC) have been developed and tested, there is no European wide standard regarding the measurement of IC. The collective research project "Intellectual Capital Statement – Made in Europe" aims at harmonising these scattered approaches on a scientific as well as a practical level. Based on scientific consensus a first framework has been developed providing a common ground for the measurement of IC by introducing the Intellectual Capital Statement (ICS). The ICS is an instrument to assess, develop and report an organisation's IC, to monitor critical success factors systematically, and to support strategic management decisions. As InCaS puts emphasis on a practical approach suitable for SMEs, the framework is to be understood as a starting point for phase I of the project, providing the basis for further development of the method towards practicability and harmonisation. It will be expanded to the final "European ICS guideline" and supported by the "ICS toolbox" in subsequent project phases. Main focus of this paper is the InCaS project and the accompanying European approach on measuring IC. As a first result a brief overview on the existing approaches on measuring IC is provided. Furthermore, the InCaS project as well as the ICS method is described and preliminary results are discussed.

Keywords: Intellectual capital, intellectual capital statement, knowledge management, innovation, SME, european commission/research

1. Introduction

1.1 Challenges

Today's economy is characterised by continuous globalisation of markets, furthermore the classical driving forces of economic growth changed towards the generation, application and exploitation of knowledge. At first only large organisations, so-called global players were affected, but over the years it spread to all industries, high-tech and low-tech, manufacturing and services, retailing and agriculture. The key to competitiveness increasingly turns on the way people combine, master and commercialise their know-how. Taking this development into account, the Lisbon Agenda from 2000 declares the aim for the European Union to become the most dynamic and competitive knowledge-based market in the world until 2010. Small and medium-sized companies (SMEs) are especially affected by this plan as they are the driving force of Europe's economy.To obtain their competitive advantage, it is crucial for SMEs to utilise knowledge efficiently and to enhance their innovation potential. Thus, managing their specific Intellectual Capital (IC) becomes more and more important for future-oriented organisations. Furthermore, reporting those intangible assets to customers, partners and investors systematically has become a critical factor of success in the context of the globalisation process (Mertins, Alwert, Will 2006).

Some authors argue that the value of traditional annual reports is declining (Lev and Zarowin 1999). "There is widespread and growing frustration with traditional financial reporting…They all argue that the financial reporting system is incapable of explaining 'new' resources such as relationships, internally generated assets and knowledge" (Mouritsen, Bukh, Marr 2004). The disclosure of such information could decrease uncertainty about future prospects of a company and allow for a more precise valuation of the company (Botosan, Plumlee 2000).

In recent years different national approaches on the management of IC have been developed and tested but there is no European wide standard regarding the measurement and management of IC. To develop a European accepted approach on managing IC it is crucial to give an overview on existing approaches related to IC in the following subchapter. The emerging need for a consistent method is the starting-point for the European project "Intellectual Capital Statement – Made in Europe (InCaS)", which is described in reasonable detail in the next chapter.

Reference this paper as:
Mertins, K. and Will, M. "A Consistent Assessment of Intellectual Capital in SMEs InCaS: Intellectual Capital Statement – Made in Europe." *The Electronic Journal of Knowledge Management* Volume 5 Issue 4, pp. 427 - 436, available online at www.ejkm.com

1.2 Existing IC management approaches

Initial efforts to measure IC and evaluate its potential started in the nineteen-sixties, driven by Becker (Becker 1964) and Schultz (Schultz 1961), and later Flamholtz (Flamholtz 1974) and Fitz-enz (Fitz-enz 1984) in the context of "Human Resource Accounting".

A crucial role in the field of IC played the practitioners Edvinsson and Sveiby in the mid of the nineties. They developed two different models ("Skandia Navigator", (Edvinsson, Malone 1997) and the "Intangible Asset Monitor" (Sveiby 2002)) to measure the components of IC by using qualitative and quantitative indicators and communicate the results in an intellectual capital statement. Edvinsson subdivided intellectual capital into human capital, structural capital, and relational capital. This structure is currently the most frequently used to describe intangible assets (Alwert 2006).

Besides this structural model of IC the Anglo-American researcher predominately developed overall monetary evaluations of IC, for instance "Tobin`s Q" (Tobin 1969) or the "market to book ratio" as well as "Calculated Intangible Value" (Steward 1997) or the "Intangibles Scoreboard" (Gu, Lev 2001). All the approaches aim to quantify organisations' total intangible assets in financial terms by using the cost, market or income approach. The monetary approach is appropriate in case of merger & acquisitions or to calculate the value of the company as a whole, but it makes it difficult to identify the strengths and weaknesses of the intellectual resources as well as pathways to future value. This is crucial to improve and manage the IC of a company effectively.

Norton and Kaplan focused on this strategic aspect and developed the "Balanced Scorecard" (Kaplan, Norton 1996) as a management tool that aims to enable managers implementing the strategy of a company by using financial and non-financial indicators. More recent approaches for the evaluation and management of IC, mainly developed by Austrian researchers and practitioners, try to include these aspects, as well as an operative link to the business processes. For instance the model of the Austrian Research Centres Seibersdorf (Austrian Research Centres Seibersdorf 2004) relates the IC to the operative business processes and combines it with the EFQM model (EFQM 2003). Furthermore approaches were developed to combine the advantages of both concepts, on the one hand the evaluation of IC in financial terms and on the other hand the analysis of the strength and weaknesses by using non-monetary indicators.

National and international research projects initiated at the end of the nineties were primarily concerned with the theoretical/academic concept of IC, its measurement and evaluation. Different accounting boards like IASB (IASB 1998) or FASB (FASB 2001) paid their attention to the intangible assets as well and try to find solutions to measure and recognise them in the balance sheet.

The research results, for instance the "Danish Guideline for Intellectual Capital Statements", supported by the Danish Ministry of Science, Technology and Innovation (Danish Ministry of Science, Technology and Innovation 2003) and the most recent German guideline "Intellectual Capital Statements – Made in Germany" by the German Federal Ministry of Economics and Labour (Alwert, Bornemann, Kivikas 2004) are focusing more on the practical application of ICS in companies. These guidelines include practical tips and proposals for drafting an Intellectual Capital Statement as a supplement to the annual report. They both go far beyond the reporting standards for intangible assets, developed by the accounting boards.

2. Intellectual capital statement – Made in Europe

2.1 The InCaS project

So far, all of these methods and ideas for the evaluation and assessment of IC are standing side by side and until today there has been no attempt to harmonise these scattered approaches on a scientific level. This is where the InCaS project starts from: integrating and consolidating academic insights as well as practical experiences shall result in a harmonised and consistent assessment of IC applying Intellectual Capital Statements (ICS).

An Intellectual Capital Statement is an instrument to assess, develop and report organisations' IC qualities, to monitor critical success factors systematically and to support strategic management decisions by revealing the SMEs innovation potential systematically. It aims at detecting strengths and weaknesses of organisations' IC, serving two purposes: as an internal management instrument supporting strategic decision-making on the one hand and as an external reporting tool to communicate to creditors, investors, customers or partners on the other.

InCaS was designed to tackle these various challenges at one time: based on existing national and international approaches, a consolidated ICS method is being developed taking the special needs and requirements of SMEs from 5 European core countries and core branches into account.

In July 2006 InCaS started as part of the program "Collective Research" funded by the European Commission, DG Research. The project counts 40 participants from 8 countries and brings together scientists, entrepreneurs as well as IAGs (Industrial Associations/Groupings).

The development and improvement of InCaS ICS method is mainly driven by the main scientific partners "Fraunhofer IPK Berlin", "London School of Economics (LSE)" and "Universidad Politècnica de Catalunya (UPC)". An Expert Group bringing together IC experts from all over Europe is supporting the research partners in the development of the method as well as assisting and evaluating the pilot-implementations.

InCaS follows a step-by-step approach to combine and alternate between scientific development and empirical testing. In three phases within a project duration of 2.5 years, 25 pilot-SMEs will go through two phases of ICS implementations, intermitted by evaluation and harmonisation activities.
In phase I the 25 SMEs will be guided through the entire ICS process by specially qualified ICS trainers in order to enable the companies on an experience-based learning approach. In phase II the same pilot-users will go through a second reporting cycle with minimal support from the trainers in order to test and prove the practicability of the method at minimum costs.

2.2 The ICS method

As InCaS wants to consolidate all experiences on Intellectual Capital Statements, the method builds upon previous experiences from Sweden, Denmark, Austria and other European countries, taking the German ICS guideline as a basis for InCaS ICS methodology. In 50 pilot implementations the German method proved to be a practicable method to introduce and implement ICS in SMEs (Will, Wuscher, Bodderas 2006). Nevertheless, the InCaS approach aims at going beyond the German methodology in terms of practicability and comparability.

Both serving as a methodological basis for the ICS implementation, InCaS has developed two models which prepare and accompany the implementation process:

The Structural Model aims at defining the "language", i.e. the vocabulary (terms/ elements) and "grammar" (interrelation of terms/elements) to be used when talking about IC and ICS.

The Procedural Model leads through the ICS process and defines the steps to implement an ICS, i.e. the methodology to be used in the process of assessment and measurement of IC factors.

2.2.1 InCaS structural model

As an ICS requires careful planning, it is crucial that the basic concepts and principles on which the organisation is based are understood. In order to make this step easier, a Structural Model taking a systemic view on the organisation has been developed (see figure 1). The model aims to display all of the relevant organisational structures linking Intellectual Capital to Business Processes and Business Success and embedding the organisation in its business environment. The starting point is the vision and strategy of the organisation with a view to the possibilities and risks encountered in the business environment. Following the most frequently used structure to describe intangible assets, the InCaS methodological framework divides Intellectual Capital into the three dimensions: human, structural and relational capital.

Human Capital includes the staff's competencies, skills, attitudes and the employee's motivation. Human Capital is owned by the employee and can be taken home or onto the next employer.

Structural Capital comprises all structures and processes needed by the employee in order to be productive and innovative. According to a sloppy but useful definition, it "consists of those intangible structures which remain with the organisation when the employee leaves" (Edvinsson, Malone 1997).

Relational Capital sums up the organisation's relations to customers, suppliers, partners and the public in general.

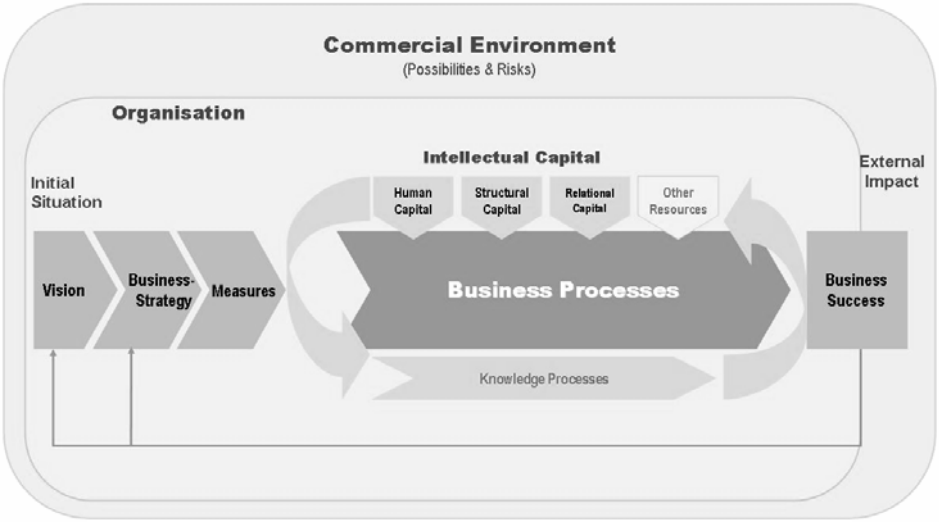

Figure 1: InCaS structural model (Alwert, Bornemann, Kivikas 2004).

According to this model the interaction of business and knowledge based processes, together with the other tangible and financial resources, leads to business success. While the structural model displays the different aspects of this interaction contributing to business success, the procedural model shows the way how to assess these aspects in order to find out about the efficiency of alignment between processes and IC.

2.2.2 InCaS procedural model

The Procedural Model defines the steps to implement an ICS, i.e. the methodology to be used in the process of assessment and measurement of IC factors.

As the project puts strong emphasis on a practical method for SMEs, the InCaS approach aims at going beyond the German methodology also in terms of practicability and quick wins for SMEs. A scalable approach has been chosen in order to ensure this objective: SMEs can choose the level of detail at the beginning of each implementation, depending on size, age, life-cycle-stage, maturity level (concerning management techniques in use) and cultural environment of the company. The scalable approach shall support a step-by-step learning process during the ICS implementation. In phase I the SMEs are supposed to develop awareness for IC related topics in their specific value creation process, to gain insights about their individual strengths and weaknesses of IC as well as to find out about the potential for managing IC systematically. Based on this learning experience, phase II shall create deeper insights into the single interdependencies of IC factors, business processes and strategic objectives as well as a solid basis for decisions on further strategic changes.

Based on the experiences with the German ICS methodology (Alwert, Bornemann, Kivikas 2004), the procedure for ICS implementation in phase I has been adjusted with respect to simplicity and clearness (see figure 2).

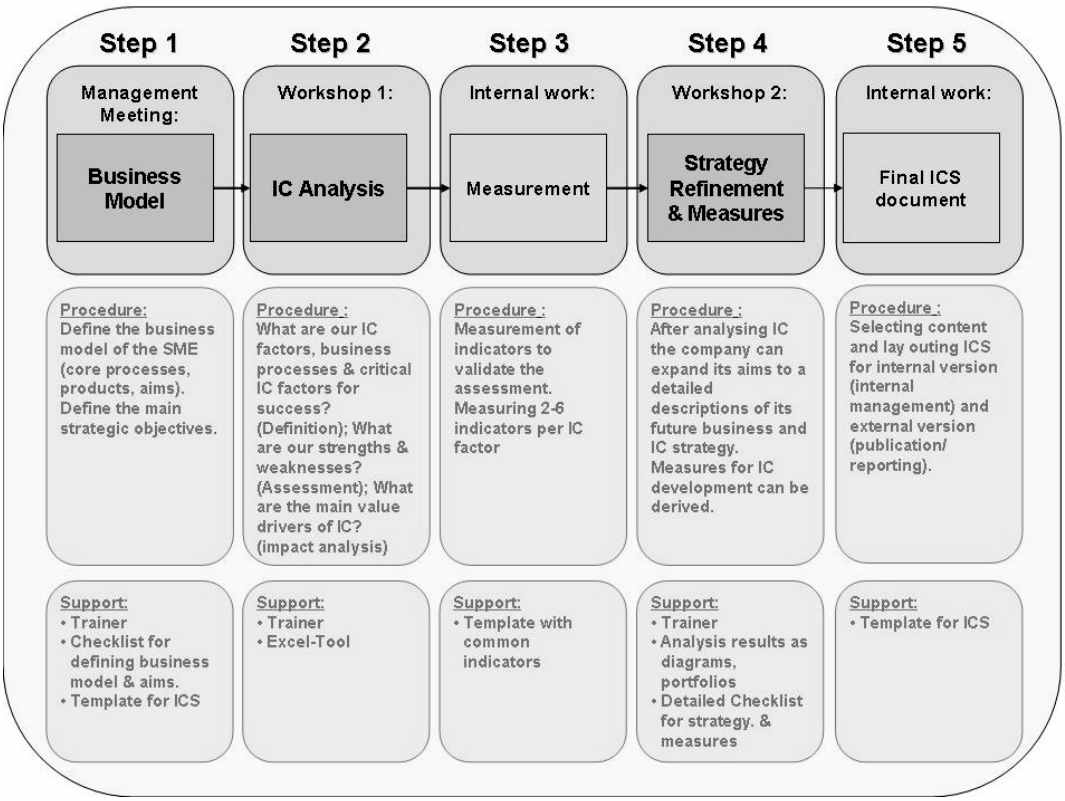

Figure 2: The incas procedural model (Fraunhofer IPK 2006)

The approach of conducting an ICS is divided into five steps with each step building on the prior one. Step 1, Step 2 and Step 4 are accomplished in direct support by ICS Trainers. Step 3 and Step 5 are prepared internally without a direct participation of an ICS Trainer on-site. The implementation process is furthermore sustained by various support material as guidelines, checklists or Excel working sheets.

Step 1 is planned as a management meeting and comprises the description and definition of the business model, i.e. defining the value creating model, the external business environment, the main strategic objectives and the business processes and business success. Due to the fact that an ICS can be developed for the whole company, a department, a business process or any other part of the organisation it is also important to clearly define which part of the organisation is analysed.

Step 2 is the crucial one as the SME's IC is analysed in a workshop. An ICS team consisting of members from different hierarchical and functional levels across the firm is assigned to the task. As the self-assessment by the team members will later be reflected in the ICS, representativeness is crucial in order to avoid a too subjective or biased self-perception.

Starting point is the *identification of IC factors*, which are important on the value-adding business processes and strategic business success. The main factors in the areas of human (e.g. professional competence, motivation), structural (e.g. cooperation and knowledge transfer, product and process innovation) and relational capital (e.g. customer relationships, partner network) are defined.

The assessment of IC factors identifies their status quo in respect to their strengths and weaknesses. The evaluation of the IC factors is conducted as a self-assessment, i.e. each factor is evaluated regarding its current existing *quantity, quality, and systematic management* ("QQS assessment") by the project team.

The *impact analysis*, as the next part of step 2, enables the prioritisation of fields of intervention. In order to analyse the relative importance of each single factor, the ICS team sets up a cross impact matrix that captures the mutual influence of all factors. Building on this fundament, the team can conduct a sensitivity analysis and the management may focus those drivers that promise to return the highest benefits or marginal utility. In the simplified version of the impact analysis a ranking of the IC factors is generated by the project team, also allowing for prioritisation by a significant reduced effort (scalable approach).

For the measurement of IC, *Step 3* determines indicators and relates them to the defined IC factors. The team discusses and develops indicators that provide adequate facts and data to monitor the performance of the different factors that have previously been assessed. Indicators show, whether implemented measures were successful.

In *step 4* all relevant information from the previous steps is gathered for further interpretation and for the deduction of adequate measures specific to the organisational and strategic needs. An Excel tool makes it possible to visualise the results in various diagrams.

Hence, it is possible to quickly assess strengths and weaknesses as well as interrelations between IC, business processes and the firm's performance. Despite the inherent complexity, graphical representations support the efficient evaluation and interpretation of the data, for example by using the IC Management Portfolio, to deduce and prioritize fields of intervention (cf. figure 3).

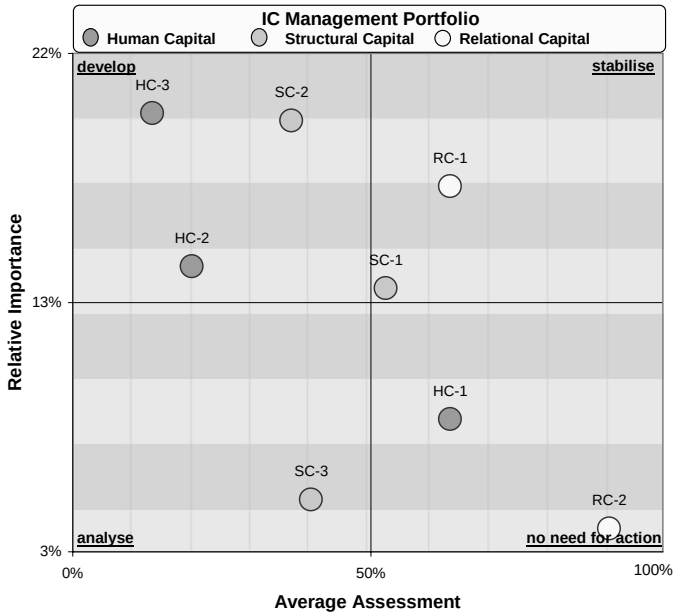

Figure 3: Example of an IC management portfolio

The IC Management Portfolio displays the future potential of the different IC factors in a four quadrant matrix. The IC factors' potential of intervention depends on the assessment of their status quo (QQS-assessment) and on their relative importance regarding the strategic objectives (impact analysis).

In general, IC factors in the upper left typically represent future fields for intervention. If a factor appears in this section, the status quo is rather poor according to the QQS-Assessment while their relative importance is rather high. Therefore, it is crucial to develop these IC factors, as they have the highest potential of intervention. By systematically searching for the factors with the highest potential for intervention, the essential question for the top management can be answered: "Where should we start to invest? Where can we get the maximum impact at minimum costs?"

IC Factors appearing in the upper right quadrant represent the strengths of the organisation. A large number of factors in this sector is generally regarded as a good sign since they do meet the strategic requirements and stabilise the firm. Hence, they should be stabilised on the current level in the future.

The IC factors appearing in the lower left quadrant would generally benefit from management intervention but they have little influence on the organisations strategic objectives.
IC factors in the lower right quadrant do not have to be developed actively. They are already in a very good condition and an improvement has little influence. Thus, there is little or no need for action in that segment. Based on the interpretation of the results, adequate measures can be derived to leverage improvement.

The ICS implementation process is finalised in *Step 5*: the compilation and presentation of ICS process' results within a final ICS document. The document has two major functions and its actual structure and content depends on the intended function. It can be used for internal purposes as a management tool and for

external purposes as a communication instrument. The external version might not show all data whereas in the internal version all data should be disclosed in order to provide a sound basis for management decisions.

The outcome of an ICS is a defined set of measures aiming at the systematic development of particular IC factors as well as a set of indicators that help measuring changes in those factors. This set of measures can be viewed as a first rough IC strategy which can be elaborated over time. Based on those findings, management might expand their business strategy taking into account IC related objectives and the opportunities deriving from systematic IC development.

Hence, the ICS marks the beginning and end of a strategic management cycle by providing sound planning and managing opportunities and continuously controlling the progress of improvement activities.

3. Preliminary results

At the time beeing, InCaS has successfully concluded the phase I implementation by the end of June 2007. By that time, the SMEs have gone through all the ICS steps and hold their first Intellectual Capital Statement in their hands.

During phase I, InCaS has put much research effort in meeting the challenges of a consolidated methodology of ICS for Europe, taking into account existing European and international approaches in the field of IC measurement. Therefore, the existing international approaches and methods have been analysed and scientifically evaluated in order to identify basic scientific coherences and consensuses on ICS. Thus, the consolidation of the different ICS approaches in the paper “State of the Art in Measuring and Reporting Intellectual Capital” has been the first milestone.

This first project paper has paved the way for the development of a consolidated and well-structured ICS method based on scientific consensus, referred to as the “ICS Framework”. The ICS framework aims at practical consensus and is supposed to provide a common ground for the ICS approach used in InCaS. It is to be understood as a starting point for the further development of the method in subsequent project phases. While the ICS Framework takes a first step towards the standardisation/harmonisation of the ICS method, supporting material like guidelines, templates and checklists landmark the beginning of content harmonisation. E.g. working with basic indicators or standard IC factors has consequently lead to a set of 25 ICSs which are already comparable concerning their structure and implementation process.

With respect to a practical approach, sets of standard IC factors and indicators simplify the process and reduce complexity within the vast field of IC. Referring to a first feedback, pilot SMEs have appreciated the level of practicability as well as the structured process.

As the most important supporting tool promoting harmonisation and practicability at the same time, an Excel-tool has been developed. It guides the user through the implementation process and offers structured templates for each ICS step of the procedural model. Workshop results, such as data from the QQS assessment or the impact analysis are inserted in the Excel sheets and main results can be shown in diagrams. This facilitates the interpretation of results and the deduction of adequate measures in step 4.

4. Outlook

Following the scalable approch of InCaS, the second phase of ICS implementations will start at the beginning of 2008 using the more comprehensive version of the ICS method. As the SMEs will profit from phase I experiences and the practice-based learning approach, they are challenged to go through the ICS process a second time on their own with minimal external support.

Following this approach not only increases sustainability of ICS implementation in the respective pilot-company, but also allows generating 50 sets of data that may be used for evaluation and further validation.
Before triggering this second ICS reporting cycle, a major challenge for scientific work in phase II will be the harmonisation of the ICS method. InCaS follows a three step harmonisation process (figure 4).

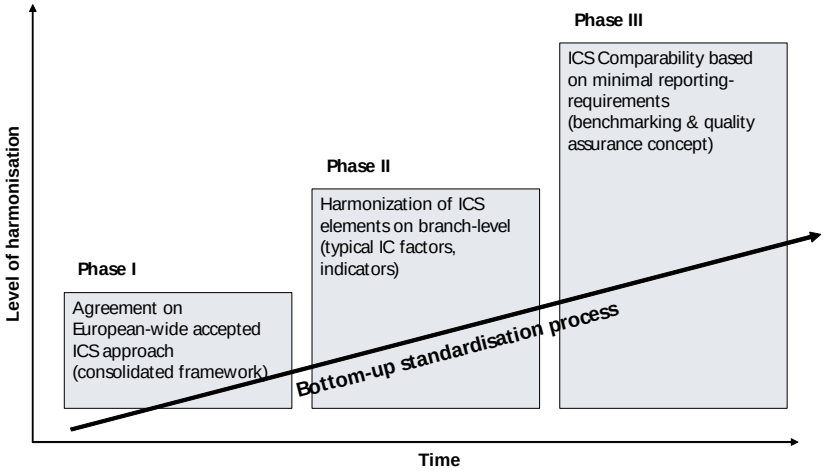

Figure 4: InCaS three-step harmonisation process

The harmonisation objectives of InCaS phase I have been achieved by providing the ICS Framework as a consistent and practical method for ICS implementation, based on the scientific consolidation of existing IC management approaches, as described above.

Starting from this harmonised methodological framework, the main harmonisation objective of phase II will be to evaluate the experiences of the first 25 pilot-implementations in order to come up with harmonised ICS content, such as typical IC factors and indicators, e.g. on the level of core branches.

This step is crucial in order to introduce the ICS successfully to the financial market. Field reports and surveys have shown that complementing financial data with information on intangible resources can sharpen the view on SMEs' creditworthiness (Thomas 2003; Will, Alwert, Bornemann, Wuscher 2007). If some requirements about structure, content and length of an IC report are fulfilled (Wuscher, Will, Alwert, Bornemann 2006), it contributes to a more homogeneous rating of SMEs, than analysts' assessment based solely on information from annual financial reporting. Therefore it reduces risks for both banks and SMEs (Alwert, Bornemann, Will 2007). InCaS needs to work out these aspects in order to develop the ICS as a reporting instrument to close the existing gap and information asymmetry.

Using the ICS as a reporting instrument in general, not only creditors might be addressed but also customers or business partners. In this case, the question of general credibility arises and leads to the field of quality assurance. Experiences from ISO 9001 or the EFQM assessment clearly show the necessity of validation from a third party to better answer the question, whether the ICS is believable or not. To validate the matching between the ICS method and the factual implementation process, a concept for an ICS quality audit will be developed and contribute to long-term quality of the ICS method (Mertins, Wang, Will 2007).

All of these research fields will be taken into account when adjusting the ICS Framework: the first draft of the ICS Framework from phase I shall be expanded to the final "European ICS guideline" until the termination of the InCaS project in December 2008, ensuring minimum quality standards for future ICS implementations. The aim of this document is to describe a common ground for a practicable European method to introduce and implement ICS in SMEs, setting standards for the internal implementation process as well as the external reporting. The development of the ICS method is accompanied by the improvement of existing support material like checklists, tools and templates, the most important of which is the ICS toolbox.

Not only shall the final ICS Toolbox support the implementation process, save all the IC related data from workshops and thus help the SMEs to manage their IC. The enhanced version of the ICS Toolbox is also supposed to serve as an ICS Training Tool and thus ensure the method transfer even after the completion of the project.

Having achieved this desired level of harmonisation and quality standards, the future challenge for InCaS is to trigger the development of an IC benchmarking concept in order to make ICSs comparable between organisations which will generate an additional benefit for both, SMEs and the financial market. To learn from best-practices or exchange experiences with companies operating within the same branch would support innovation processes and strengthen the SMEs competitiveness. This IC benchmarking concept

based on minimal reporting requirements would ensure quality and comparability of ICSs as a management and reporting instrument all over Europe.

References

Alwert, K. (2006) *Wissensbilanzen für mittelständische Organisationen*, Fraunhofer IRB Verlag, Stuttgart.

Alwert, K.; Bornemann, M.; Kivikas, M. (2004) "Intellectual Capital Statement – Made in Germany. Guideline" Published by the Federal Ministry for Economics and Technology, Berlin, [online], http://www.bmwi.de/BMWi/Redaktion/PDF/W/wissensbilanz-made-in-germany-leitfaden,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf

Alwert, K.; Bornemann, M.; Will, M. (2007) "Does Intellectual Capital Reporting Matter to Financial Analysts?", Paper read at the 8th European Conference on Knowledge Management, Barcelona, Spain

Austrian Research Centers Seibersdorf (2004): "ARC Wissensbilanz"; [online], http://www.arcs.ac.at/downloads/ARC_Wissensbilanz_2004.pdf

Becker, G. S. (1964) *Human Capital*; Chicago, University of Cicago Press,

Botosan, C. A.; Plumlee, M. A. (2000) "Disclosure Level and Expected Cost of Equity Capital: An Examination of Analysts' Rankings of Corporate Disclosure and Alternative Methods of Estimating Expected Cost of Equity Capital", [online] http://papers.ssrn.com/sol3/papers.cfm?abstract_id=224385#PaperDownload

Danish Ministry of Science, Technology and Innovation (2003) "Intellectual Capital Statements – The New Guideline";, http://www.videnskabsministeriet.dk/fsk/publ/2003/guideline_uk/guideline_uk.pdf

Edvinsson, L.; Malone, M. (1997) *Intellectual Capital*; New York, Harper Business

European Foundation for Quality Management EFQM (2003) "EFQM Excellence Model"; [online] http://www.efqm.org/Default.aspx?tabid=35

Financial Accounting Standards Board (2001) FAS 142 "Goodwill and Other Intangible Assets", FAS 141: "Business Combinations", [online], Norwalk, Connecticut, http://www.fasb.org/pdf/fas142.pdf, http://www.fasb.org/pdf/fas141.pdf

Fitz-enz, J. (1984) *How to measure human resources management*; New York, McGraw-Hill

Flamholtz, E. (1974) *Human Resource Accounting;* Encino, Dickenson

Gu, F.; Lev, B. (2001) "Intangible Assets: measurement, drivers, usefulness"; [online], http://pages.stern.nyu.edu/~blev/intangible-assets.doc

International Accounting Standards Board (1998) "IAS 38: Intangible Assets"; [online], http://www.iasb.org/

Mertins, K.; Alwert, K.; Will, M. (2006) "Measuring Intellectual Capital in European SME", *Proceedings of I-KNOW '06, 6th International Conference on Knowledge Management*, published by Tochtermann, K.; Maurer, H., Graz, Austria, pp 21-25

Kaplan, R.; Norton, D. (1996) *The Balance Scorecard – Translating Strategy into Action*; Harvard Business School Press, Boston

Lev, B; Zarowin, P. (1999) "The Boundaries of Financial Reporting and How to Extend Them"; Journal of Accounting Research, Vol. 37, No. 2 (Autumn, 1999), pp. 353-385

Mertins, K.; Wang, W.-H.; Will, M. (2007) "How to ensure the quality and credibility of Intellectual Capital Statements", Paper read at the 8th European Conference on Knowledge Management, Barcelona, Spain

Mouritsen, J; Buhk, P.N.; Marr, B. (2004) "Reporting on intellectual capital: why, what and how?", *Measuring Business Excellence*, Vol. 8, No. 1, pp. 46-54

Schultz, T.W. (1961) "Investment in Human Capital", *American Economic Review*, No 51

Steward, T.A. (1997) *Intellectual Capital – the new wealth of organisations*; Doubledays Currency, New York

Sveiby, K.E. (2002) "Die Messung immaterieller Vermögenswerte", In: Bellmann, M.; Krcmar, H.; Sommerlatte, T. (Hrsg.): „Praxishandbuch Wissensmanagement: Strategien – Methoden – Fallbeispiele"; Symposium, Düsseldorf

Tobin, J. (1969) „A General Equilibrium Approach to Monetary Theory", In: *Journal of Money, Credit and Banking,* No 1, February

Thomas, Alison (2003) A Tale of Two Reports, in: European Business Forum, Issue 16, 2003/4, pp. 79-81. Retrieved November, 2006, [online], http://www.ebr360.org/downloads/ebf_issue16.pdf

Will, M.; Alwert, K.; Bornemann, M.; Wuscher, S. (2007): „Wissensbilanz – Made in Germany – Auswirkungen eines Berichts über Intellektuelles Kapital auf die Unternehmensbewertung", Recent study by Fraunhofer IPK, Berlin. Retrieved May 2nd, 2007, [online] http://www.akwissensbilanz.org/Projekte/070201_Finanzmarkt_Wirkungstest_Teil2_V17.pdf

Will, M.; Wuscher, S.; Bodderas, M. (2006): „Wissensbilanz – Made in Germany – Nutzung und Bewertung der Wissensbilanz durch die Pilotunternehmen", Recent study by Fraunhofer IPK, Berlin. Retrieved May 2nd, 2007, [online] http://www.akwissensbilanz.org/Projekte/KMU Wirkungstest Teil 2.pdf

Wuscher, S.; Will, M.; Alwert, K.; Bornemann, M. (2006): „Wissensbilanz – Made in Germany - Projektstudie über weiche Faktoren als Teil der Unternehmenseinschätzung durch Kapitalgeber", Recent study by Fraunhofer IPK, Berlin. Retrieved May 2nd, 2007, [online] http://www.akwissensbilanz.org/Infoservice/Infomaterial/061214_Finanzmarkt_Wirkungstest_Teil1_V16.pdf

