

## Measuring Intellectual Capital in European SME

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**Abstract:** To obtain competitive advantage in Europe, it is crucial for small and medium sized enterprises (SME) to utilise knowledge efficiently and to enhance their innovation potential. Several national approaches of managing Intellectual Capital exist, but there is no European wide consensus or any empirical validity regarding managing Intellectual Capital. The different approaches have to be brought together and a suitable method for SME with minimum standards on the European level has to be developed. This paper shows existing approaches on measuring Intellectual Capital as well as the necessity of a European approach and the potential impact of an Intellectual Capital Statement (ICS) on the European level.

**Keywords:** Intellectual Capital, Intellectual Capital Statement, Knowledge Management, Measurement, SME

### 1 Introduction

To obtain competitive advantage in Europe, it is crucial for small and medium sized enterprises (SME) to utilise knowledge efficiently and to enhance their innovation potential. Thus, managing their specific “Intellectual Capital (IC)” is increasingly important for future-oriented organisations. Furthermore, reporting those intangible assets to customers, partners and investors systematically has become a crucial factor of success in the context of the globalization process.

Conventional balance sheets and controlling instruments have lost some of their value because IC, i.e. value-adding knowledge, internal processes and structures as well as important relationships to customers and partners, are not considered so far.

### 2 Existing IC management approaches

Initial efforts to measure IC and evaluate its potential started in the nineteen-sixties in the context of “Human Resource Accounting”.

In the mid nineties the practitioners Edvinsson and Sveiby took up a leading role in the field of IC. They developed two different models (“Skandia Navigator” [Edvinsson and 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 (ICS).

The Anglo-American approaches aim to quantify organisations' total intangible assets in financial terms by using the cost, market or income approach. The main disadvantage of the monetary approach is that it lacks the ability to identify the strengths and weaknesses of intellectual resources as well as pathways to the creation of future value, while this is crucial to improve and manage the IC of a company.

The "Balanced Scorecard" [Kaplan and Norton 1996] aims to enable managers implementing the strategy of a company by the use of both financial and non-financial indicators. More recent approaches for the evaluation and management of IC, mainly developed by Austrian researchers and practitioners [ARCS 2004], try to include these aspects, as well as an operative link to the business processes.

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. While the German and Danish research is focused on the practical application of ICS in companies [Mertins, Alwert, Heisig 2005]

### **3 Intellectual Capital Statement – Made in Germany**

The "Intellectual Capital Statement – Made in Germany" was developed by a project consortium consisting of the Competence Centre Knowledge Management at Fraunhofer Institute for Production Systems and Design Technology (IPK), Wissenskapital Edvinsson und Kivikas Entwicklungsunternehmen GmbH and Intangible Asset Management Consulting in 2004. The consortium implemented a pilot project to adjust the preparation of Intellectual Capital Statements to the German situation and to test it in reality. The results and the experiences of the project led to the German Guideline "Wissensbilanz – Made in Germany" in August 2004.

#### **3.1 Intellectual Capital**

In the context of the German method of ICS the term IC is defined as the "existing knowledge of an organisation that is critical to success" [FMEL 2004]. The IC of an organisation can be divided into three categories [Alwert 2006]:

- **Human capital:** Human capital covers the skills, abilities and motivation of employees. Human capital is 'owned' by employees and can be taken home or on to their next employer.
- **Structural capital:** Structural capital covers the structures and processes within the organisation. It consists of the intelligent structures which remain at the organisation when the employee leaves.
- **Relational capital:** Relational capital describes an organisation's relations with customers and suppliers, as well as with other partners and the public.

#### **3.2 Intellectual Capital Statement**

The ICS can be seen as an internal strategic management instrument as well as an external communication instrument with the following use and benefits for SMEs:

- Systematic management of the organisation: Any systematic management of IC depends on measuring and valuating it.
- Acquisition of capital: The more transparent an organisation is the lower is the risk for investors i.e. reduced cost of capital.
- Meeting legal requirements: National and international accounting standards already recommend the disclosure of IC in the Notes to the Financial Statement.
- Employee recruitment and retention: The hunt for so-called “high potentials” shows that whilst financial aspects play a major role for future employees, the intangible factors may be decisive in more and more cases.
- Developing cooperation: Development of global value chains requires advanced communication with the business environment. Solid information on expertise, corporate culture and existing relations with the market plays a major role in developing a sustainable business relationship.
- Customer acquisition and retention: Customers want to know from whom they are acquiring a product or service. Greater transparency is a strong advantage in acquiring new customers and retaining existing ones.

#### **4 Intellectual Capital Statement – Made in Europe**

The several different approaches on measuring and managing IC reveal the necessity of a European wide harmonisation on IC management. The scattered knowledge needs to be merged on a scientific level in order to generate a common ICS method.

The European project “Intellectual Capital Statement - Made in Europe (InCaS)” focuses on the following scientific and technological objectives:

- Integration and consolidation of single national and international approaches on ICS on the European level
- Development of a consolidated European framework for ICS adapted to the special requirements of SMEs
- Facilitation of ICS comparability by developing branch-specific ICS elements
- Development of minimal requirements for IC reporting (IC Benchmarking)
- Bottom-up contribution to standardisation based on valid and representative empirical data
- Testing and evaluation of the developed approach for “proof of concept” and maximum dissemination impact
- Minimise complexity by providing a simple ICS implementation procedure adjusted to the needs of European SMEs
- Development of a practical ICS Guideline to enable SMEs to implement an ICS independently
- Development of an “ICS Toolbox“ software system to support SME users in the ICS implementation process
- Establishment of a central database to aggregate SMEs’ IC data for benchmarking and scientific evaluation

The consolidated ICS methodology will set pre-normative standards for assessing and reporting IC. The results of InCaS will have impact on various factions in Europe.

The focus will be on the improvement of the SMEs’ knowledge base in two respects. Firstly, to add new knowledge on value adding mechanisms of intellectual

and intangible resources to the public knowledge base. Secondly, to provide a management tool that allows deducing well aimed measures to develop a company's specific knowledge base according to their specific business and knowledge strategy.

The systematic management of knowledge and innovation potential will help to turn traditional enterprises into "learning organisations". According to the strong economic influence of SMEs a positive macroeconomic effect can be expected. The consolidation on the European level and the harmonisation of branch-specific IC elements can further increase the comparability of single ICSs.

A wider economic impact can be expected on the level of markets, branches and business sectors as well as regions. The transparency of intangible assets will support the coalescence of national markets on a micro- and macroeconomic level. The scope and depths of co-operations between single companies can be increased. Furthermore banks and equity institutions will profit from enhanced transparency of intangible assets and a harmonised evaluation scheme. This will enable an improved risk assessment and thus could reduce the cost of capital.

A wider strategic impact is the consistent European-wide application with a resulting maximum in the comparability of single ICS. The broad dissemination will allow gathering representative data and therefore enables the benchmarking of the SMEs' business situation. This could result in a better understanding of the needs and requirements of SMEs and therefore could improve the systematic political support and promotion of SMEs.

The development of the SMEs' knowledge base includes continuous training and education of employees, life long learning will no longer be an abstract play on words but a necessary pre-condition. An implemented ICS will help to change the old and antiquated paradigm of "human resources as costs" to "human resources as an investment". By using an ICS, SMEs will learn how to use human, structural and relational capital to improve their own capacities in order to compete on the global market.

## **5 Future Work**

The collective research project "Intellectual Capital Statement – Made in Europe (InCaS)" aims at implementing ICS in over 1.000 European SMEs. To achieve this overall objective, research work is needed in order to identify common grounds as well as cultural differences and national and branch-specific requirements. "InCaS" puts emphasis on a practical approach, suitable for SMEs, combined with maximum benefit regarding the improvement of exploitation of existing IC and revealing unused innovation potentials. The project aims at minimising complexity and implementation effort. A systematic dissemination of the developed European ICS Guideline is carried out by a consortium of multipliers. The project starts in summer of 2006 and will run 2.5 years.

The project consortium consists of SME associations in five core countries (Germany, France, Spain, Slovenia, Poland), lead by the Confédération Européenne des Associations de Petites et Moyenne Entreprises (CEA-PME), and a core group of 25 SME in those countries who will implement the developed ICS method as pilot-users. The main scientific partners to develop the ICS method and to support and evaluate the pilot-implementations are "Fraunhofer IPK Berlin", "London School of Economics (LSE)" and "Universidad Politècnica de Catalunya (UPC)".

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