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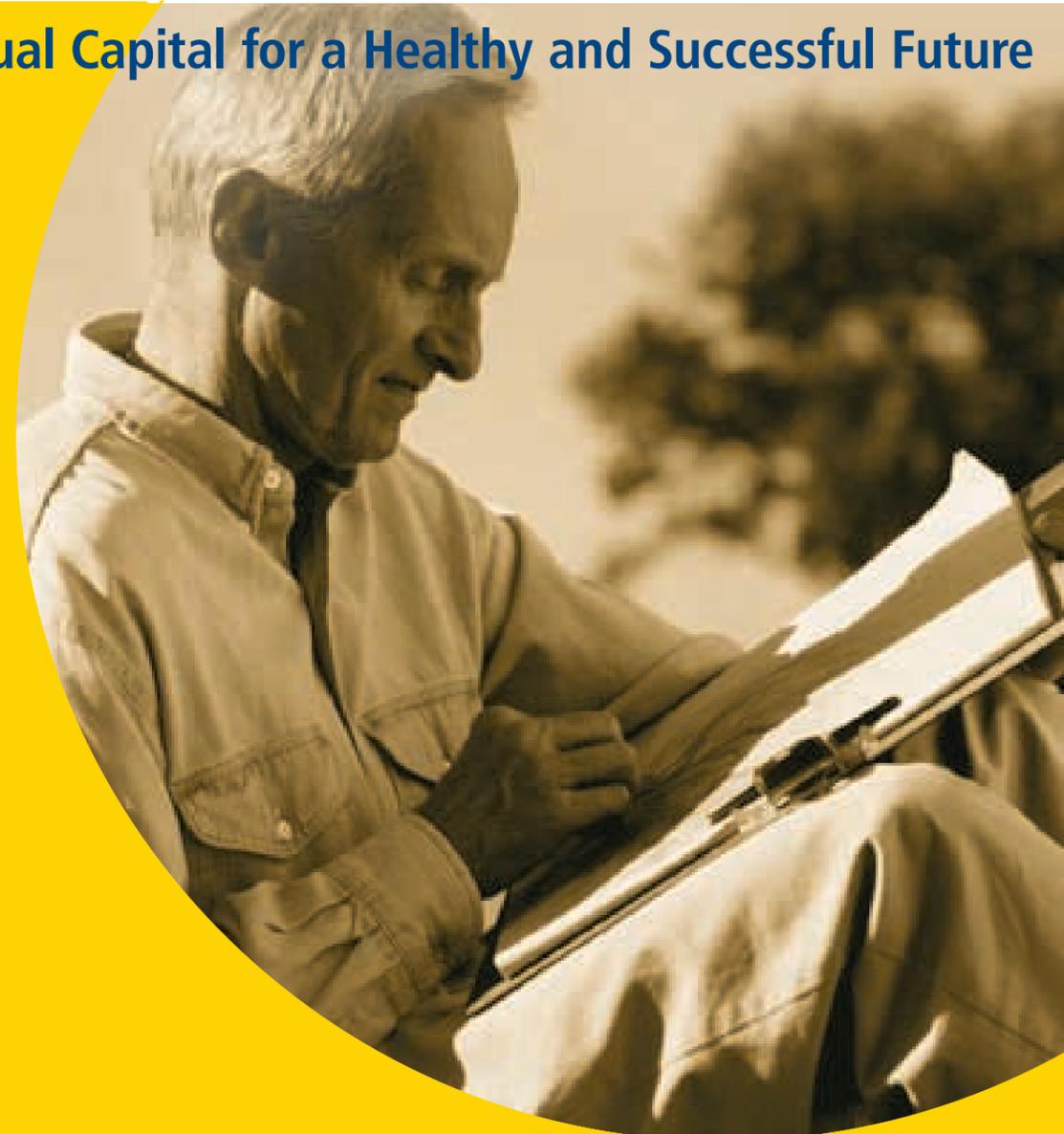
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# Knowledge Management and Lifelong Learning

## Intellectual Capital for a Healthy and Successful Future



# Knowledge Management and Lifelong Learning

**'Knowledge management' and 'life-long learning' are terms which highlight the increasing importance in developed economies of creating, sustaining and sharing knowledge. A point that is emphasised when one considers that in the future as many as one in three employees in Europe will work directly in the production and propagation of knowledge across both the manufacturing and service sectors.**

The notion of the knowledge society is used today to describe the ongoing changes to the economic base of industrialised societies. Knowledge is regarded as the new dominant economic resource, emphasising the fact that an organisation's most valuable asset is intangible, namely its human and social capital, and that within this knowledge and creativity are key factors.

- In corporate practice, what does 'knowledge management' and 'lifelong learning' really mean?
- How can organisations make the best use of the knowledge available to them impacting effectively on the 'bottom line'?
- Can you judge a company by its non-financial assets such as knowledge, information and education and training rather than its tangible ones?

These were some of the questions discussed by the European Network "Enterprise for Health" (EfH) at its meeting held in Torun, Poland on the 18th/19th April 2005.

EfH is an international network of companies which was initiated by the Bertelsmann Stiftung and the Federal Association of Company Health Funds (BKK Germany) and meets under the chairmanship of EfH President Rita Süßmuth to consider questions of the development of corporate culture based on partnership and modern company health policy.

## Knowledge Management

There are many definitions of knowledge management. However within this context it can be defined as a concept in which an enterprise consciously and comprehensively gathers, organises, shares, and analyses its *knowledge* in terms of resources, documents, and people skills. Put more simply, knowledge management seeks to make the best use of the knowledge that is available to an organisation, creating new knowledge in the process.

At company level three main areas of action emerge, namely:

- the management of information and communication technologies,
- the research and development domain and
- competence management (including initial occupational training and corporate continuous training).

These three fields of action will in future determine the competitiveness of companies, and national and supranational economic regions.

## Knowledge Navigation

*Leif Edvinsson (Universal Networking Intellectual Capital, UNIC; University of Lund, Sweden)* a leading expert on this topic differentiates between knowledge management and knowledge navigation. He suggests that a major challenge facing organisations is how best to shape the balance between intelligence and ignorance. He notes that we "concern ourselves almost exclusively with what we know, and not with what we don't know. Companies should exploit intelligently concealed and unknown resources and abilities. This is something different from traditional knowledge management; I call it knowledge navigation."

# Knowledge Management and Lifelong Learning

## In Sourcing

In the global marketplace where knowledge is a valuable commodity, organisations should give consideration to their own knowledge needs. Europe's population of 270 million is one tenth of the population of Asia. However in the USA a third of post doctorate posts are filled by people from Asia. In this human capital market place companies must recognise the importance of insourcing i.e. encouraging the flow of knowledgeable labour into an organisation and then using it appropriately.

## Intellectual Capital

Intellectual capital incorporates the intangible assets of an organisation. It is the product of interactions between three components: human capital, organisation-related capital (structural capital) (processes, procedures, culture, databases) and relationship capital (customer relationships, supplier relationships, other external stakeholder relationships).

Using the metaphor of a tree, it has been suggested that, organisations need to consider how to nourish the roots of intellectual capital within them, rather than concentrating everything on harvesting the fruit. In this analogy, organisational culture is the growing medium in which knowledge can develop, be shared and sustained, and organisations must recognise that it is important to maintain a renewal or innovation process or else knowledge and subsequently the organisation will diminish and die.

## Knowledge Care

The importance of cultivating human capital and knowledge within an organisation is becoming increasingly well understood. However, having developed and cultivated human and intellectual capital an organisation could be under threat if it did not have processes in place, which enable that knowledge and human resource to be supported and nurtured. It can be strongly argued that knowledge care is of greater significance and importance than knowledge management.

Within an organisation a key question that needs to be answered is, "how can the gap between seniors and juniors be bridged so as to stimulate innovation?" One concern is the 35 to 42 age group which is often made up of middle managers who have neither the courage nor the time to be innovative. In response organisations might give this group as much as seven years outside the organisation and then bring them back in – even at the age of 65 – in order to gain the maximum amount from them.

## Lifelong Learning

A major concern in a knowledge-based society is the high number of adults without formal educational qualification. Both those directly affected and the family households that are subsequently established are exposed to considerable risks. On the one hand this reduces, in business management terms, the quality of the labour markets while, on the other, it creates a cost to the national economy for necessary support measures. The concept of lifelong learning encompasses the totality of all formal, non-formal and informal learning over the whole life-cycle of an individual and is seen as an individual, corporate and social investment.

Life-long learning in the corporate environment commences with initial vocational training. It continues with ongoing training and encompasses all informal learning processes within the framework of day-to-day work organisation.

Learning time accounts constitute an important instrument for ensuring that the time-related conditions for life-long learning after initial training can be created. This means that time quotas for continuous training can be created, reserved or guaranteed. Companies that introduce learning time accounts are characterised by a higher level of participation in training and they also more fully integrate employees with lower qualifications into the continuous training.

Knowledge and learning can unfold effectively and efficiently in the corporate environment if they are part of the general management process, are thus aligned to the corporate goals and are promoted by a co-operative and healthy organisational structure.

# Innovation and Lifelong Learning

**Innovation has traditionally meant new ideas for products, processes or services within a company. But it now has a much wider application, embracing changes within the economy as a whole and opportunities for increasing the employability of individuals, according to Gerhard Bosch of the Institute of Work & Technology (Institut Arbeit und Technik) in Germany.**

The true wealth of a company in the modern age is increasingly judged not by the value of its tangible assets, but by its non-financial assets, such as knowledge, information, health & safety, education & training. *Gerhard Bosch* says the investment ratio in tangible and intangible assets in companies changed from 2:1 in the 1920s to 1:1.2 in the 1990s.

Education remains the key to employability. In most industrialised countries, unemployment is highest among those with lower educational attainment. Also, the higher the skill levels, the longer the workinghours – so-called ‘brain operating hours’ as opposed to ‘machine operating hours’. Typically, in Western European countries, between 1984 and 2002, working time reductions imposed in response to market conditions mainly affected employees with low and intermediate qualifications, not those with higher qualifications.

## Return on Investment

As evidence of the return on an investment in education, *Gerhard Bosch* quoted an European study which showed that, as a rule, in a country where there is one year more than the average schooling, there is an increase in aggregate productivity of 5 percent in the short term and a further 5 percent in the long term, although he cautioned that the study is based on formal schooling only and does not take into account informal learning.

Another significant factor is the ageing workforce. Early retirement had been adopted in a number of European countries to cope with crises in certain industries. This policy then began to be applied in nearly all industries, notably in France, Germany, Belgium and the Netherlands.

One European employment strategy formulated some long-term goals, one of which was to reach an employment rate for older workers of 50 percent. In Germany, this goal was reached only for highly skilled workers. The only country in Europe that reached the goal for all six categories of workers was Sweden, which has never followed an early retirement policy. The Swedes introduced equal opportunities, along with a policy of lifelong learning, in the 1960s.

## The Responsibility for Innovation

*Gerhard Bosch* challenged companies to examine who is really responsible for their innovation. Most companies rely on only a few individuals for innovation; very few have groups in special departments and only 6 percent or 7 percent think they have formal structures for innovation capabilities, such as knowledge banks.

Between 2000 and 2002, German companies that said they had no innovation grew by 0.9 percent; companies that focused on research and development (R&D) reported growth of 8.4 percent while others that combined R&D with process modernisation, for example, had an even higher rate of growth.

*Gerhard Bosch* drew attention to some ‘myths’ surrounding education and work. One is that all skills and knowledge decline, therefore more lifelong learning is needed. He said some general skills, such as languages, maths and social skills, last a lifetime if used regularly. This is also true for basic vocational training but specific vocational skills have to be refreshed and advanced.

Another myth is that a person should be prepared to change occupations several times in a working life. While true for some specific occupations, broader-based roles, supported by ongoing training, allowed employees to adapt better to changes in their workplaces.

The view that training must be increasingly orientated to meet the specific needs of companies was also questioned. Many companies plan on a short-term basis, not knowing their future needs. Also, not all companies are innovators, which makes it more difficult for them to develop appropriate curricula.

## Lifelong Learning – Who Pays?

An investment in training brings benefits for a company, the individual and the economy. However, while companies are primarily interested in funding training to improve their business performance, individuals view training as a means of boosting their income, promotion prospects, employability and job satisfaction.

*Gerhard Bosch* urged companies to consider a wider agenda for training, avoiding too much emphasis on specific self-interest, thereby contributing to a general increase in skill levels in the economy as a whole.

Returns on training are often difficult to calculate. There are some measureables, but many of the returns, such as individual competencies, are invisible. It was argued that if the training is solely job-related, then the company should pay. If the worker receives a certificate that enables him or her to become more mobile on the labour market, then there is a case for seeking a contribution from the person concerned.

# Experience from Corporate Practice



Organisations should have a structured curricula for training, developed by experts. Individuals need an established pathway and accreditation programme to follow.

- In Germany, employers and Trade Unions have jointly developed four new occupations in the IT sector, linking vocational training to a degree-level qualification, unlike the UK, where academics still set the criteria.
- In Sweden, adults who have not completed their school education and want to go to University can apply for grants and loans of up to 1,000 euros (2003) to help them continue their studies. The grants and loans can be paid back over a period of up to 50 years and people are entitled to unpaid training leave of up to 5 years.
- France operates a structured levy system to help pay for training. The standard levy is 1.6 percent of an employee's gross wages. Employees who can show they are training do not have to pay. The levy is higher for agency workers because they have a greater risk of unemployment. New schemes have recently been set up whereby social partners – employers, unions and the State – sign a contract where each individual has the right of 20 hours training a year which can be accumulated up to 100 hours maximum and includes unpaid training leave of up to one year.
- In Sweden, 40 percent of *Skandia Insurance* employees contribute to a special “competence” savings account, matched by the company. For employees aged over 45 or who have 15 years service, Skandia trebles the company's contribution.
- In another example of co-financing, *Volkswagen* reached a new collective agreement – including an investment in training – with workers representatives as a condition of building the Touran in Germany. Every employee has to attend 3 hours of training a week, for which they receive 1.5 hours pay. A training centre was set up in the middle of the factory for workers to attend at the beginning or end of a shift.

*Endress+Hauser (E+H)* is a global leader in the provision of measurement instrumentation and automation solutions for industrial process engineering. The highly-decentralised group comprises 6,500 employees in 72 independently-managed companies in 37 countries, which presents a challenge when it comes to Knowledge Management. *Peter Hauenstein* Corporate Director Human Resources said Knowledge Management within *E+H* included:

#### Research & Development (R&D) Forum

A mix of formal and informal workshop presentations, including a keynote address and the sharing of everyday knowledge and experience.

#### Meeting of Innovators

*E+H*'s success is based on a constant stream of innovative new products. The annual *Meeting of Innovators* is a key motivation event, which stimulates the exchange of ideas and the generation of new patents. Awards are presented to key innovators.

#### Creation of Standards

*E+H* produces a wide range of products for specific customer needs in different countries. Standards are developed to master diversity, reduce complexity and streamline business processes. One example is their 'Beloni Translation Tool', named after its inventor's hometown in Germany. About 8 000 technical terms are defined in 30/40 languages, allowing automatic translation of orders from anywhere in the world.

Networking is regarded as a key component of Knowledge Management at *E+H*. *Peter Hauenstein* gave three examples:

#### Strategic Industry Groups

*E+H* is structured to serve both individual customers and industry sectors. Specific industry managers are brought together with *E+H* product managers, sales and R&D personnel to facilitate understanding of customer needs and trends, focus product development and improve stakeholder relations.

#### Groupcon (Top Management Conference)

*E+H*'s annual networking and socialising conference involving the entire top management team which enables the sharing of knowledge and the reinforcement of company values.

#### Customer Parliament

*E+H*'s specially created forum to meet and listen to customers and provide them with the current strategic and product views of *E+H*. Has been proved to significantly increase customer loyalty, particularly when customers can see that their ideas or suggestions have been incorporated into a new product design or modification. Unfiltered dialogue, direct and high quality information all emanate from this event.

*Peter Hauenstein*: “Knowledge is a strategic success factor for *E+H*. We use our knowledge consciously and actively for the benefit of our customers. Based on our credo and our strategy, we use all reasonable possibilities in business processes to increase, foster and provide our knowledge.”

‘Sharing Knowledge’ is one of *E+H*'s fundamental objectives, in which all employees, teams, organisations and customers play an increasingly important role in the modern marketplace.

# Practical Consequences

In the view of EfH members it is highly important to create and develop conditions conducive to the promotion of 'lifelong learning' and 'knowledge management' within organisations. An exchange of experiences within the EfH network revealed the following ramifications for future action:

1

Intangible factors such as information and communication technologies, research and development and competence profiles will in future acquire ever greater importance with regard to competitiveness and value creation. They must become core elements in the management process.

2

The components of intellectual capital – of human, structural and relational capital – (employees, organisation and external stakeholders) can be improved continuously using methods and procedures of knowledge management and lifelong learning.

3

A healthy work and organisation design based on a corporate culture based on partnership is the crucial starting point for the value creation of intangible factors and for making possible the use of latent potential.

4

Without healthy living and working conditions the enduring, continuous renewal of corporate resources is not possible. Corporate principles and a management which proactively implements this paradigm change, create access to concealed potential and the conditions for innovation.