

*Tomi Hussi, Guy Ahonen*

*Business-oriented maintenance*  

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*of work ability*





## DOCUMENTATION PAGE

<b>Publisher</b> Ministry of Social Affairs and Health, Finland		<b>Date</b> 26. February 2007	
<b>Authors</b> Tomi Hussi Finnish Institute of Occupational Health Guy Ahonen Swedish School of Economics and Business Administration		<b>Type of publication</b> Report	
		<b>Commissioned by</b> Ministry of Social Affairs and Health	
		<b>Date of appointing the organ</b>	
<b>Title publication</b> Business-oriented maintenance of work ability			
<b>Summary</b> During two decades occupational well-being has been promoted in Finland within the so-called tyky-framework (promotion of work ability). This genuinely Finnish model has proved to be very successful. It has, however, not always been taken seriously enough by the top management of the companies. Therefore a need for strategically more relevant approaches has emerged. In order to meet this need the authors of the current report carried out a research project within the VETO-program. As a point of departure was taken the idea that work is getting increasingly knowledge intensive, and that the intangible assets therefore have an increasing strategic relevance. Therefore, the so-called Danish model was taken as the theoretical and practical point of departure of the project. This model was combined with the Finnish work ability approach. In the Danish model the management of intangible assets is done by the use of Intellectual Capital Accounts, which are structures according to a certain logic. Main elements of these accounts are: the knowledge narrative, the management challenges, the initiatives and the indicators.  The project was carried out in co-operation with two Finnish companies, within which business oriented well-being reports were developed. The background and the findings of this development work is presented in this report. Also the two case descriptions are attached. The project shows that the well-being of the personnel has many links to the actual business of the companies. The challenge lies in identifying them. Furthermore, the project indicates that personnel well-being may even sit in the absolute strategic center of knowledge intensive organization.			
<b>Key words</b> Occupational well-being, strategy, knowledge intensive work, intellectual capital, intangible assets			
<b>Other data</b> Internet: <a href="http://www.stm.fi">www.stm.fi</a>			
<b>Title and number of series</b> Reports of the Ministry of Social Affairs and Health 2007:17		<b>ISSN</b> 1236-2115	<b>ISBN</b> 978-952-00-2289-1 (paperback) 978-952-00-2290-7 (PDF)
<b>Number of pages</b> 48	<b>Language</b> English	<b>Price</b> 10,80 €	<b>Publicity</b> Public
<b>Distributor/Orders</b> Helsinki University Press PO Box (Vuorikatu 3 A) 00014 UNIVERSITY OF HELSINKI Fax +358-9-7010 2374, tel. +358-9-7010 2363 books@yliopistopaino.fi		<b>Financier</b> Ministry of Social Affairs and Health	



KUVAILULEHTI

<b>Julkaisija</b> Sosiaali- ja terveysministeriö		<b>Julkaisun päivämäärä</b> 26.2.2007	
<b>Tekijät</b> Tomi Hussi Guy Ahonen		<b>Julkaisun laji</b>	
		<b>Toimeksiantaja</b> Sosiaali- ja terveysministeriö	
		<b>Toimielimen asettamispäivä</b>	
<b>Julkaisun nimi</b> Liiketoimintalähtöinen työkyvyn edistäminen (Business oriented maintenance of work) ability			
<b>Julkaisun osat</b>			
<b>Tiivistelmä</b> <p>Työhyvinvointia on Suomessa jo parin vuosikymmenen ajan edistetty työkykyä edistävän toiminnan puitteissa. Tämä n.k. tyky-malli on osoittautunut hyvin toimivaksi lähestymistavaksi. Koska tätä toimintaa ei ole aina riittävässä määrin noteerattu yritysjohdon taholta on syntynyt tarve kytkeä se lähemmäksi yrityksen strategista ajattelua. Tämän tekemiseksi julkaisun kirjoittajat toteuttivat tutkimusprojektin VETO-ohjelman puitteissa. Projektin lähtökohdaksi otettiin ajatus, jonka mukaan kaikki työ on muuttumassa yhä tieto-intensiivisemmäksi, ja että yritysten aineeton varallisuus siksi on niiden yritysten ytimessä. Tanskassa aineettoman varallisuuden johtaminen on viety pisimmälle maalimassa. Siksi n.k. tanskalainen malli otettiin projektin teoreettiseksi ja käytännölliseksi viitekehyykeksi, joka yhdistettiin suomalaiseen työhyvinvointiajatteluun. Tanskalaisessa mallissa aineettoman varallisuuden johtaminen tapahtuu n.k. osaamispääomaraporttien avulla. Nämä raportit on jäsennetty määrätyn logiikan mukaisesti. Raporttien keskeiset osatekijät ovat: osaamistarina, johdon haasteet, toimenpiteet ja mittarit.</p> <p>Projekti toteutettiin kahden tapausorganisaation kanssa, jotka yhdessä tutkijoiden kanssa loivat liiketoimintalähtöisen työhyvinvoinnin kehittämisraportit. Projektin taustoja ja tuloksia on esitelty oheisessa raportissa. Tapauskuvaukset ovat raportin liitteinä. Tutkimus osoittaa, että työhyvinvoinnissa on useita yhtymäkohtia yritysten varsinaiseen liiketoimintaan, ja että työhyvinvointi itse asiassa voi olla tietointensiivisen työn ytimessä. Haasteena on identifioida kyseiset yhtymäkohdat.</p>			
<b>Avainsanat:</b> (asiasanat) Työhyvinvointi, tyky-toiminta, liiketoiminta, strategia, aineeton varallisuus, osaamispääoma, tietointensiivinen työ			
<b>Muut tiedot</b> www.stm.fi			
<b>Sarjan nimi ja numero</b> Sosiaali- ja terveysministeriön selvityksiä 2007:17		<b>ISSN</b> 1236-2115	<b>ISBN</b> 978-952-00-2289-1(nid.) 978-952-00-2290-7(PDF)
<b>Kokonaissivumäärä</b> 48	<b>Kieli</b> Suomi	<b>Hinta</b> 10,80 €	<b>Luottamuksellisuus</b> Julkinen
<b>Tätä julkaisua myy ja välittää</b> Yliopistopaino Kustannus Helsinki University Press PL 4 (Vuorikatu 3 A) 00014 HELSINGIN YLIOPISTO Fax (09) 7010 2374, Puhelin (09) 7010 2363 <a href="mailto:books@yliopistopaino.fi">books@yliopistopaino.fi</a> <a href="http://www.yliopistopaino.fi/kirjamyynti">www.yliopistopaino.fi/kirjamyynti</a>		<b>Kustantaja</b> Sosiaali- ja terveysministeriö	



**PRESENTATIONSBLAD**

<b>Utgivare</b> Social- och hälsovårdsministeriet		<b>Utgivningsdatum</b> 26.2.2007	
<b>Författare</b> Tomi Hussi Guy Ahonen		<b>Typ av publikation</b>	
		<b>Uppdragsgivare</b> Social- och hälsovårdsministeriet	
		<b>Datum för tillsättandet av organet</b>	
<b>Publikation</b> Strategi-baserad utveckling av personalens arbetsförmåga			
<b>Referat</b> <p>Man har i två årtionden befrämjat löntagarnas välbefinnade inom ramen för s.k. tyky-verksamhet (befrämjande av arbetsförmåga). Detta angreppssätt har visat sig vara mycket lyckat. Eftersom denna verksamhet emellertid inte alltid har noterats särdeles högt av företagens ledning har man efterlyst angreppssätt som är tätare kopplade till företagens strategiska tänkande. I detta syfte har författarna till denna artikel genomfört ett forskningsprojekt inom ramen för VETO-programmet. Som utgångspunkt för projektet valdes antagandet, att allt arbete håller på att bli allt mer kunskapsintensivt samt att immateriella tillgångarna är i företagens strategiska centrum. I Danmark har man kommit längst vad beträffar styrning av det intellektuella kapitalet (IC). Därför valdes den s.k. danska modellen som teoretisk och praktisk utgångspunkt för projektet. Till detta koncept kopplades det finländska sättet att befrämja arbetsförmågan. I den danska modellen styrs det intellektuella kapitalet genom s.k. IC-rapporter. Dessa rapporter är strukturerade enligt en bestämd modell. Centrala beståndsdelar i denna modell är: kunskapsberättelsen, de centrala utmaningarna, initiativen och indikatorerna.</p> <p>Projektet förverkligades tillsammans med två fallföretag, som tillsammans med forskarna utvecklade strategibaserade modeller för utvecklande av personalens välbefinnande. Bakgrunden till projektets problematik och resultatet av detta arbete har presenterats i denna rapport. Fallbeskrivningarna finns som bilagor. Undersökningen visar, att personalens välbefinnande har många beröringspunkter med företagens egentliga näringsverksamhet och att personalens välbefinnande i själva verket kan ligga i centrum för strategin då det är fråga om kunskapsföretag. Utmaningen ligger i att finna dessa beröringspunkter.</p>			
<b>Nyckelord</b> Personalens välbefinnande, tyky-verksamhet, strategi, intellektuellt kapital, kunskapsarbete			
<b>Övriga uppgifter</b> <a href="http://www.stm.fi">www.stm.fi</a>			
<b>Seriens namn och nummer</b> Social- och hälsovårdsministeriets rapporter 2007:17		<b>ISSN</b> 1236-2115	<b>ISBN</b> 978-952-00-2289-1 (inh.) 978-952-00-2290-7 (PDF)
<b>Sidoantal</b> 48	<b>Språk</b> Finska	<b>Pris</b> 10,80 €	<b>Sekretessgrad</b> Offentlig
<b>Distribution och försäljning:</b> Helsingfors Universitetsförlag, PB 4 (Berggatan 3 A) FI-00014 HELSINGFORS UNIVERSITET Fax (09) 7010 2374, Tfn (09) 7010 2363 <a href="mailto:books@yliopistopaino.fi">books@yliopistopaino.fi</a> <a href="http://www.yliopistopaino.fi/kirjamyynti">www.yliopistopaino.fi/kirjamyynti</a>		<b>Förlag</b> Social- och hälsovårdsministeriet	





# Preface

The employability of an individual is affected by both enterprise- and policy-level measures. Work ability develops on workplace level. It refers to the sum of factors related to both the individual and work that are important in terms of the individual's ability to cope at work.

In order to make work ability approach more relevant to the top management of the enterprises, the Finnish work ability paradigm was combined with the management of intangible assets. The project indicates that personnel wellbeing has many links to the actual business of the companies.

I hope that the publication will provide input into the public discussion and help develop better understanding of the management of Intellectual Capital Accounts. We are building a bridge between organization's business activities and its aim of supporting employees' wellbeing. Taking care of employees' work ability is a comparable investment in the productivity as investments in machinery.

The members of the steering group were professor Juhani Ilmarinen, Finnish Institute of Occupational Health, Project Manager Tuomo Alasoini, Ministry of Labour, Research Liaison Officer Ilkka Tahvanainen, The Finnish Work Environment Fund, Ministerial Counsellor Heikki Savolainen, Ministry of Social Affairs and Health, and the chairman was Deputy Director-General Rolf Myhrman, Ministry of Social Affairs and Health.

The study has been made by professor Guy Ahonen and Dr. Tomi Hussi, Intangibles Management Finland Oy.

Helsinki, February 2007

Rolf Myhrman  
Deputy Director-General



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## 1 Introduction

In Finland, and many other European countries, early exit from the labour force is an increasing problem. The median retirement age in Finland is currently 60, which means that every person leaves the labour market in average 5 years prematurely. Calculated by wage costs the annual cost of early retirement is 10 billion € per year, which is roughly 7 % of the annual Gross National Product. In addition to early retirement costs reduced work ability poses a number of other costs in form of reduced individual productivity and sick leaves. According to an analysis made for the Finnish Age committee in 1996 the costs of aging for the Finnish enterprises was 2,6 billion € per year (Ahonen 1996).

The costs of aging are a permanent threat to the competitiveness of European enterprises. This threat becomes even more severe when the changing nature of business is taken into consideration. The increased knowledge intensiveness of the economy puts the emphasis of business on intangible assets, instead of tangibles, like production plants. Intangible assets consist of Human Capital (the capabilities of individuals), Relational Capital (the perceptions held by relevant stakeholders) and Structural Capital (connecting together all forms of productive assets) (Meritum 2002). Most experts consider Human Capital the most crucial element of intangible assets (Sveiby 1997).

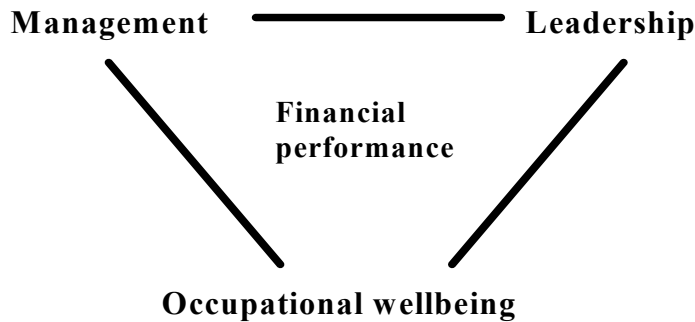
In 1990s it became evident that the management of intangible assets differs significantly from managing tangible based, traditional business. Particularly the 500 years old accounting practices came under severe attack. Therefore new reporting systems were generated. In Finland Human Resource Accounts became extensively used (Ahonen and Gröjer 2005) and in Denmark the so-called Intellectual Capital Statements were taken into use (Mouritsen 2004).

In Danish IC Statements the crucial management challenges and control systems are related to the value creation logic of the company (Mouritsen 2004). By creating and publishing an annual IC report the knowledge company communicates the value creation logic to every member of the company. In all IC reports the personnel (HC) is in the centre of the value creation story, the so-called knowledge narrative.

Although the personnel have a central role in the Danish IC reports the health aspect is seldom explicitly mentioned. In order to manage the aging issue of the labour force in a knowledge based economy the health of the personnel must be a systematic concern. According to Nonaka and Konno (1998) the prerequisites of knowledge creation are “love, care, trust and commitment”.

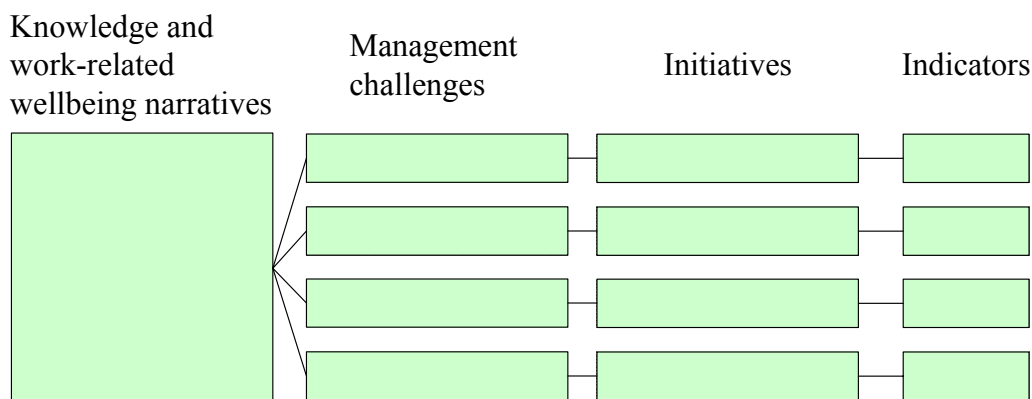
*The main reason why early exit from the labour force is so difficult to prevent is the separation of personnel well-being issues from the strategic management of the company. When the company is narrowly looking at the immediate financial performance it behaves in a way that eventually excludes the ageing employees and reduces their productive contribution. An integration of personnel well-being issues and strategic management leads to a new way of leadership. Particularly the leadership of ageing employees require special skills and approaches that differ significantly from traditional leadership (Ilmarinen 2006).*

The study by Hussi (2005d) showed that activities aimed at improving work related wellbeing have characteristics that can be linked to both the concept of ‘management’ and ‘leadership’. Management and leadership are not an either/or dichotomy but both perspectives are needed because they have specific roles in an organisation’s functioning and they complement each other (Kotter 1990). Occupational wellbeing needs to be observed in both of these perspectives and thus an organisation’s managerial capability to achieve sustainable financial performance is outlined in Figure 1 below.



**Figure 1. The managerial roots of sustainable financial performance**

Experience has shown that organisations are interested in monitoring both their intellectual capital and work related well-being. In Finland, the popularity of the human resource reporting models (henkilöstötilinpäätös) is a vivid example of this demand. However, it is difficult to create and, especially, use the information meaningfully without rather profound understanding of the organisation and its strategic intentions. For the purposes of this project the Danish Intellectual Capital Statements –model (see Figure 2) was chosen because it is able to present the context along with the indicators.



**Figure 2. The Danish intellectual capital statement –model**

Fincham and Roslender (2003) have identified three different approaches related to the intellectual capital, namely accounting, scorecard and narrative approaches. The Finnish Human Resource reporting model has its roots in the accounting approach because it follows the financial accounting and reporting paradigm. Even though this approach

benefits from being easily understandable among accounting practitioners, it is yet also tied to the restrictions of the accounting. Scorecard approaches, like balanced scorecard, for example, are released from these restrictions. This distinction allows the scorecard approaches to include perspectives that cannot be included in the accounting approach. When considering the balanced scorecard, especially the dimensions on customers and processes describe the characteristics that are not included in the Human Resource Reporting model. Even though the customer, process and learning and growth dimensions give information that can be seen as preceding compared to the financial dimension they are yet reflecting a score, in other words giving a summary of events that have already occurred. Secondly, the scorecard approaches emphasise quantitative measures. The narrative approach, in which the Danish model can be included, puts a greater reliance on the narrative that is able to outline the future ambition of the company instead of merely accounting for the present activities that are captured by the scorecard approach. Furthermore, the narratives can also be combined with a variety of different qualitative representations.

Despite the differences described above, it can be said that human resource reporting models and the Danish Intellectual Capital Statement model have a lot in common; both of these models take some kind of strategy and vision description as their starting point and, on the other hand, aim at indicator system for items that are not discussed in the traditional book-keeping material. The difference to the Danish model is that by describing the management challenges and initiatives it gives detailed information about the strategic assumptions (management challenges) and activities that are based on these assumptions (initiatives). These two elements are not presented in the human resource reporting model. On the other hand, whereas the logic of the Danish model is useful for the users, it also sheds light on the process of defining the indicators. It helps to understand the logic of the intellectual capital in the organisation's functioning. Therefore our project is also emphasises the implementation of the Danish model into Finnish organisations and thus spreading the knowledge on intellectual capital.

From the work-related wellbeing point of view, it is a wholly new idea that an organisation would make a written statement about the reasons why it tries to support employees' wellbeing – that is to outline the business economic rationale behind these investments. Accordingly, strategic planning in the form of defining the central management challenges has also been scarce. It could be said that attempts to support and enhance employees' work-related wellbeing have mostly been about setting up different initiatives. Since the elements of strategic planning have been absent from the process, it has been difficult to create indicators that are related to the specific context. Providing information in more general terms can be beneficial but it is much more difficult to show its importance with regards to management decision making.

This report describes the “Strategy oriented maintenance of work ability –model (Strategialähtöinen työhyvinvoinnin tukemisen malli)”, which was created in the project funded by the VETO-programme of the Finnish Ministry of Health and Social Affairs. The theoretical base for this model has been laid in Tomi Hussi's (2005b) dissertation thesis “Essays on Managing Knowledge and Work Related Wellbeing” that was published in October 2005 at Swedish School of Economics and Business Administration Hanken in Helsinki.

There follows a brief overlook on the background of the approaches that build the basis for the model. Then we'll move on to present the model itself and, finally, we'll draw some conclusions about implementing the model.

## **1.1 The brief overlook at the history**

There are three central frameworks related to the approach presented in this chapter. Firstly, human resource reporting is central because it forms the basis for intellectual capital framework, and, partially to Maintenance of Work Ability framework, as well. On the other hand, human resource reporting has also laid significant foundation for adopting IC related thematic in the Finnish society because it saw a rather of a boom in the late 1990s in Finland. Secondly, the roots of the European IC approach need to be discussed. And finally, the Finnish Maintenance of Work Ability framework, which is quite unique approach to occupational health matters when comparing to internationally predominant models, also requires its description on the backgrounds.

### **1.1.1 Human resource reporting from slavery to knowledge economy**

The accounting practises related to the human capital are actually rooted in the slavery communities. There was a need to keep track about the costs of slavery and the added value that this capital was able to produce. Adam Smith used the costs of human resources as the basis for argument that slavery society is economically inefficient. Economist theories have a long history of controversial arguments considering the human capital. (Eronen 1997; Gröjer – Johanson 1996.)

During the early 1960s the basic ideas of the modern human resource reporting were created. This development was influenced by theory on human capital, organisational psychology, newly adopted human resource view and the idea of seeing human capital as a part of company's good will. Human resource reporting raised considerable interest in the western countries in the early 1970s. Attempts to create monitoring and reporting systems to the organisations increased. By the 1980 this interest had already decreased both in academia and companies. It was seen that human resource reporting was a tempting idea but it was difficult and costly to apply and unlikely to provide comparative advantage within an industry. However, the interest did not fade away completely. (Borg 2002; Eronen 1997; Gröjer –Johanson 1996; Flamholz 1985.) Research and companies' interest has risen again and Flamholz (1985) sees at least three reasons for this change: increasing interest in the relationship between increasing productivity and human capital, differences in Japanese and American management style, and the shift of the societies from industrial to knowledge-intensive society that turned human capital into a critical productive factor.

In Finland, human resource reporting (HRR) approach (*henkilöstötilinpäätös*) has been strongly related to the wellbeing of the employees' (Ahonen 1998). Human resource report –model presents a summary of personnel structure, competence and work ability. A comprehensive description about these themes helps the top management to understand the resources that are required for achieving the results of an organisation, what are the development trends and what kinds of activities should be undertaken. In this sense, human resource report forms the basis for creating the personnel strategy.



The emphasis on sustainable development, that is characteristic to the Finnish HRR approach, is distinctive because this theme is not as evident in the international literature. It is obvious that the contrast regarding to the slavery society is enormous.

### **1.1.2 Intellectual capital in the European arenas**

Both OECD and the EU-commission have been relevant organisations for the development of intellectual capital to its current position as an established field of science. OECD organised a meeting in 1995 in Paris with an agenda of including training into balance sheet as a capital instead of a cost. This work was continued in a seminar in Helsinki March 1996 with title Human resource accounting in enterprises. The Helsinki meeting resulted in a suggestion that reporting should be developed and, especially, reporting practises should be unified. There was an aim to seek practises for seeing training as an investment and reporting training investments in the companies' financial statements (OECD 1996a; OECD 1996b).

The European Commission called the year 1996 “the European year of lifelong learning” and published a white paper “Teaching and learning – towards the learning society” (Commission of the European Communities 2005.). This white paper stated a goal that investments in training and physical capital should be treated equally. Achieving this goal required developing accounting practises on human capital in member states. It was argued that the erroneous measurement of knowledge, due to rapidly outdated industrial management models and financial reporting practices, may lead to an inefficient allocation of material, financial and human resources, not only by firms but also by their suppliers of goods, services and capitals.

These development trends served as a basis for launching the European Meritum-project (Measuring intangibles to understand and improve innovation management). The general aims of this project were:

1. to provide insight into the process of transforming intangibles into increased wealth. How are they managed and accounted for and how do they contribute to growth and employment?
2. to develop guidelines for the measurement and disclosure of intangibles.

The project consisted of four tracks, namely classification study, management control study, capital market study and finally the aim of creating a common framework for the identification, measurement and disclosure of information on the intangible determinants of corporate value. The approaches were built on the comparisons between findings in six European countries (Denmark, Finland, France, Norway, Spain and Sweden).

At the same time Denmark was also active in developing intellectual capital statements. In Denmark a number of firms have since 1998 co-operated with researchers and government agencies in order to develop a guideline for intellectual capital reporting (DATI, 2000; Mouritsen *et al.* 2003a; Mouritsen *et al.* 2003b). The statements disclosed in Denmark over the past half decade have shown that it is possible to construct a comprehensive and meaningful framework for reporting on and managing a company's intellectual resources and competencies. Intellectual capital statements are reports that via text, indicators and illustrations present the firm's knowledge management effort (Mouritsen, 2000, Mouritsen *et al.* 2001a). The purpose of an intellectual capital

statement is to communicate the use value, knowledge resources and management challenges of the company. The use value outlines in a narrative form the ambition of the company's knowledge management, because it not only accounts for present performance, but also formulates a strategy for the company's know-how in the future. (Mouritsen et al., 2003a.)

The external intellectual capital statement is a report that via text, figures and illustrations presents the organizations knowledge management effort. The purpose of the statement is to communicate the knowledge narrative and management challenges and to document that the appropriate actions have been implemented. The statement can also set out the applied accounting policies and reflect on the credibility of the intellectual capital statement. The type of information disclosed in intellectual capital statements is only to a limited degree present in financial annual reports, which mainly focus on financial information reflecting the tangible value of the company, and they thus represent knowledge resources relatively poorly (Barth *et al.* 2001).

The guideline provides a series of practical inputs relating to the communicating and construction of the IC statement to external stakeholders. Important points to be considered include:

- Who is the target audience?
- What is the principle message?
- Which media to use? Should the IC statement be part of the annual report or separate?
- What are the legal requirements?
- What are the resource allocations (time and cost / man hours, etc.)?

The last part of the guideline addresses the work process involved in preparing an IC statement and provides suggestions for how to organise the IC project and project team by raising questions such as:

- Who should be a part of the project team?
- What is the role of senior management?
- What is the time schedule and deadline?
- How is management commitment ensured?
- How can data collection be automated?
- Is there a need for an auditor's verification?
- How is the IC statement used as a management tool in practice?
- How can the company ensure the IC statement will become embedded in the organisation?
- Is there an opportunity to participate in Experience Groups where companies come together to brainstorm, share ideas and knowledge on how to prepare an IC statement?

## **1.2 From Occupational Health and Safety towards comprehensive Maintenance of Work Ability**

Maintenance of work ability (MWA) framework, which consists of health, competence, work community and work environment, has an established position in the Finnish work life. It is the framework for improving work related wellbeing, which guides centrally also occupational health and safety activities.

Employees' wellbeing is one of the key elements in long-term productivity and quality development in terms of sustainable development. Special attention should be paid to mental wellbeing along with physical wellbeing. (Bjurström *et al.* 1993.) Work environment and psychosocial factors are almost as relevant risk factors for work ability as purely biomedical factors. The atmosphere, social support and control over work tasks experienced by the employee are increasingly important as prerequisites of work ability. The development of work communities, as well as maintaining health and competencies, become increasingly important for the companies. (Huuskonen – Kalimo 1999.)

The starting point for the Finnish maintenance of work ability approach can be identified in a memorandum on the maintenance of work ability in work places that was created by central labour unions and the employer's confederation in 1989. This resolution was written into the law on occupational health in 1991. The new compensation system for occupational health activities in 1995 included maintenance of work ability in those activities covered. (Bergström *et al.* 1997.) Instead of preventing illness, the maintenance of work ability aims at supporting health and the individual's work ability and general capacity. It has a more holistic approach to work life as it focuses increasingly on improving mental and social capacity, competencies and professional skills. (Rantanen 1999.) It has been characteristic of MWA from the beginning that it is addressed to all employees and there are no restrictions with regard to either age or occupation (Ministry of labour 1996).

The occupational health care advisory board of the Ministry of Social Affairs and Health has defined the maintenance of work ability so as to include all activities by which an employer, employees and co-operation organisations in the work place together aim at improving and supporting work ability and the capacity of each individual participating in work life at all phases of the career. (The occupational health care advisory board 1992, Ref. Matikainen 1995.) Prevention consists of proactive activities aimed at securing an individual's work ability and capacity as well as possible. Improvement of the work ability is focused on an employee or work community already threatened by decreasing work ability. The aim is to prevent the creation of disparity between demands and resources. On the individual level it is important to define threats and become active as early as possible. The atmosphere and functionality of a work community should be considered before problems occur. (Matikainen 1995.)

Ilmarinen (1995; 1999a) defines work ability as a relationship between an individual's resources and the demands of the work task. According to this definition an individual's resources consist of health and capacity, training and competencies, relevant values and attitudes, motivation and job satisfaction. These resources are used in the work in which the work community and work environment and work-related mental and physical

demands also have an influence. This context has an essential effect on an individual's ability to use his or her resources. According to this definition work ability is a dynamic process that changes via its components as an employee ages. An individual's work ability is further related to the personal networks (such as family and friends), organisation and the surrounding society.

It is important to see that health *per se* does not define work ability, but it is a sum of physical, mental and social capacities. It is also dependent on the requirements of the work task. Work disability can be generated even without changes in health. Changes in threats, strain or demands of work can lead to a clash between work ability and the requirements of work. Organisational culture can affect the inability to work as the discrimination against handicapped employees pushes them out of working life. On the other hand, the work community that aims at developing resources also activates those with a handicap and participation in working life is longer. Uncertainty of employment and productivity, quality, learning and other demands are a burden for an already handicapped person. (Rantanen 1999.)

In international literature, the interest is generally focused on occupational health and safety promotion in the workplace. It could be regarded as a modern corporate strategy, which aims at preventing ill health at work (including work-related diseases, accidents, injuries, occupational diseases and stress) and enhancing the health-promoting potential and wellbeing of the workforce. According to the work site health promotion framework, workers lifestyles, including diet, exercise, smoking and drinking habits, are also seen as central. Therefore, health education designed to promote good lifestyles and discourage those detrimental to health should be introduced into the workplace as part of the occupational health and safety programme of activities. Ageing of the employees is also seen to have considerable effects on health. (Wegman 2004; Alli 2001; Wilkinson 2000.)

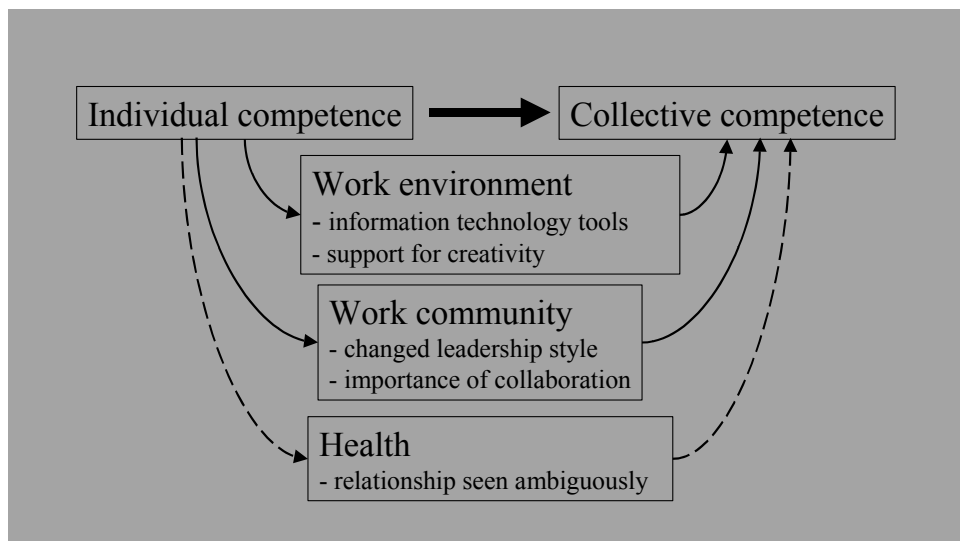
It is characteristic of the MWA framework that it includes activities traditionally included in occupational health care, as well as developmental actions, which are preferably carried out as a part of an organisation's 'normal' functions and preventive actions mobilised only by some sign of alarm (Kalimo – Toppinen 1999). This adoption of a broader scope in activities shifts the emphasis from preventing traditional health hazards towards a more comprehensive promotion of work-related wellbeing. In an international comparison, Finland is in a group of countries that pay much attention to preventing work stress and that consider work stress as a relevant health and safety issue (Kompier – Cooper 1999).

The increasing need for innovativeness sets up new kind of demands on working life. It is common for all innovation supporting procedures that they enhance dialogue. In the core of this dialogue are questions and answers oriented interaction and the culture of challenging ideas. This new kind of tolerance for contradictions and systemic challenging of the ideas sets heavy demands on the functioning of the work community. The more complex the problem is, the more relevant becomes experience, knowledge base, endurance and interaction skills. Socially oriented person or organisation can organise the required knowledge creation according to strategic goal. (Salmenperä *et al.* 2000.) Deficiencies in professional skills can rapidly turn into a serious problem in work life. This is also a health related threat as it creates a burden and increases work related stress. (Ilmarinen 1999b.)

## 2 The strategy oriented maintenance of work ability – model

The multifaceted relationship between wellbeing and intellectual capital is modelled in Figure 1. When considering intellectual capital, the most essential change has taken place in relation to competence. Whereas the focus has previously been on an individual's competencies, the increasing importance of knowledge creation requires combining the characteristics of the individuals into a larger entity that can be seen as collective competence. The most evident development factor behind this is the increasing use of information and communication technologies that have made it possible to collaborate in whole new ways. On the other hand, there is also an emerging trend of designing work places that support creativeness. When considering the work community, the shift towards collective competencies has required a new kind of leadership paradigm that dissolves the bureaucratic chain of command into collaborative working practises. Even though the role of human capital as the fundamental element of IC has been widely recognised, the health perspective is far from self-evident. Because of this ambiguousness this linkage is described with a dashed line in Figure 1. (Hussi 2005a.)

### Wellbeing at work



**Figure 3. Logics of work related wellbeing in the knowledge-intensive work**

The grey shading labelled as wellbeing at work in the figure above argues that all of these four linkage relationships described above are constituents of wellbeing. An ability to mould competencies residing in the individual employees towards a collective character is required in order to meet the rapidly changing requirements of the business environment. The linkages specified in this study have an essential role in supporting this conversion. Mismatch in any of these causes a strain that can prevent the creativity of the organisation. (Hussi 2005a.)

The ability to observe and flexibly adapt to the changes in the business environment is the very essence of intellectual capital. This goal is achieved through emphasis on creating new knowledge. More about the relationship between intellectual capital and knowledge creation can be found in, for example, in Hussi 2004.

Even though the research so far has been able to show the importance of work-related wellbeing for organisation's knowledge creation (Hussi 2005b), there has been a lack of concrete tools that organisations could use to implementing the theories into daily practises. Therefore it was a natural step to start developing a model that would fulfil this need. Thorough consideration of different alternatives resulted in decision that the Danish Intellectual Capital framework provides the best starting point for our development approach. It can be used to create a clear strategic basis also for the maintenance of work related wellbeing. The next section discusses the practicalities that are related to the process of strategy oriented maintenance of work ability –model.

## **2.1 The workshop process**

According to our experiences, a flow of workshops suits well to the aim of undertaking the process related to the model. The total number of workshops can vary between five and seven. Even though there was an aim to keep the number of workshops as low as possible, we would like to suggest that it is important to have a separate introductory workshop and the one for each of the four steps in the model. If possible, it is a good idea to include a workshop for crystallising the ideas of the first three workshops before entering the indicators. The last phase is strongly tied to the earlier ones and especially to the initiatives. If the initiatives are defined inaccurately, this has direct implications on the indicators, as well.

A concluding workshop is recommended especially if there is more than one target organisation in the process. A wrap-up meeting serves as an important forum for exchanging experiences and also providing feedback. However, we would like to suggest that the actual development workshops focus on one organisation at the time. Otherwise there is a threat that discussion takes place in a very general level and it is difficult to apply the ideas into any specific context.

According to our experiences it is possible to carry out each workshop in one day but this means that the days are quite fully packed. In this phase we have not been able to test two-day workshops, but it is very possible that this solution could turn out to be highly plausible. As it has already been mentioned, there is a lot to do for a one-day workshop and, on the other hand, informal socialising often helps in coming up with the best ideas.

### **2.1.1 Two different strategies to approach the model**

When starting the process of implementing the model described in this chapter, there are two different alternatives. One possible solution is to start from the left, i.e. take the knowledge narrative workshop first, and then move step by step towards indicators. This approach might be most feasible if the participants are accustomed to strategic planning and like to proceed from the overview into more detailed scrutiny during the process. In

this approach the management challenges help in slicing the abstract strategic level into key challenges that an organisation has to be able to solve in order to pursue the goals set in the strategic level. Further on, initiatives outline the practical activities that have been or are planned to be undertaken in order to meet the management challenges. And finally, the set of indicators shows the effectiveness of the initiatives.

The other alternative is to take the initiatives as the starting point. This approach gives the advantage of having the concrete activities that an organisation is undertaking as first. Then management challenges gather the set of initiatives into larger entities in a higher abstraction level. The gap to creating the knowledge and work related wellbeing narrative is not so steep when there have already been two workshops on the topic prior to this phase. Indicators have a similar role in this approach as in the one described above, so there are no differences in this relation.

The original Danish guidelines on intellectual capital statements suggest that the latter approach should be used. In principle we are thinking in a similar manner. However, we would like to encourage the users of this model to think about the other possibility, as well. This goes especially for those cases, in which participants are members of the top management. It might be easier for them to begin from a more familiar viewpoint and then move towards concrete details. It might also be a good idea to discuss about the “direction” in the introductory phase. This kind of an opportunity to have an influence on the way the process is undertaken can be beneficial for the commitment. In the case descriptions, which can be found in the appendices, Pension Insurance company Ilmarinen was conducted from narratives to initiatives and The Finnish News Agency the other way, i.e. from initiatives towards narratives.

### **2.1.2 General remarks about the workshops**

The beginning of every workshop is a crucial point. The warm-up is highly important because igniting participants to speak is in the core of the whole development. In this setting, the external consultant is far from an expert considering the specific organisation. On the contrary, he or she can only provide outlining and concepts that help to shape the situation. It is the company participants that are the true experts on their own firm and getting these ideas flowing is more than essential. Presumably these challenges were met satisfactorily in our development process because one of the participants commented during the break that the development consultant acted as “a secretary, chairman and shrink for the group in order to get them talking about the themes”. It is difficult to hope for a more positive feedback.

It would seem that it is important to have enough breaks even though participants have an extremely active role in working. This goes especially for the morning sessions because too heavy working, even if highly inspired and energised, will result in decreased drive during the afternoon. Therefore the schedule for lunch breaks should be loose enough, as well. One hour break, for example, allows peaceful moment for eating and discussing in more general terms. All these kinds of sessions increase the cohesion within the work group. Tighter cohesion improves the interaction and members of the group that are possibly more quiet during the sessions will also contribute more actively to the work of the team.

### 2.1.3 Orientation towards the workshop process

As an initiating framework for the workshop process Danish professor Per Nikolaj Bukh has developed a practical starting point, which lists questions that help in getting the process started. This initiating phase directs the work group to consider themes like:

- What is our strategy?
- What weaknesses do we have?
- What is knowledge / work ability?
- Why is knowledge / work ability important?
- What are our current knowledge management / maintenance of work ability activities?
- What have we planned to do?
- What indicators do we have?

The first question referring to the organisation's strategy is important because it highlights immediately the connection to the general strategic planning of the organisation. This focus is the key for building knowledge and work related wellbeing strategies that truly enhance realising the business strategy. Discussing the weaknesses is useful in paving the way for defining management challenges.

The third question can be very difficult especially in terms of knowledge. This question is not supposed to direct the participants towards philosophical contemplations but it is about seeking ideas that chart valuable ideas from the organisation's point of view. For example, knowledge about information technology systems is highly relevant for a company working in this industry, whereas pharmaceutical expertise is the key for a drug store. On the other hand, conceptions of work ability can also vary considerably between companies.

The importance of knowledge and work ability, on the other hand, is far more interesting topic. This line of reasoning takes the participants to consider the role of knowledge and work ability in the organisation's daily operations. Especially in the case of work ability, this kind of rationale behind the activities is not usually considered. In the early days of occupational health and safety activities this motivation was much more obvious. Insufficient (physical) health status and different threats of the (physical) work environment obviously restricted the productive capacity of the personnel and solving these problems was easily justified. The knowledge-based economy sets completely different requirements on employees, as, for example, the importance of social skills and mental wellbeing is central.

The question on current activities and plans is an important one because it guides to chart the current situation. Different development activities are often criticised about neglecting the existing preconditions and taking the basic assumption that it is possible to make a fresh start. On one hand this kind of an overlook encourages the firm and its employees by revealing that many activities serving these purposes are already undertaken. On the other hand, it also prevents from re-inventing the wheel, which could be highly frustrating for the participants. Existing planning can also be taken as a good sign that the company



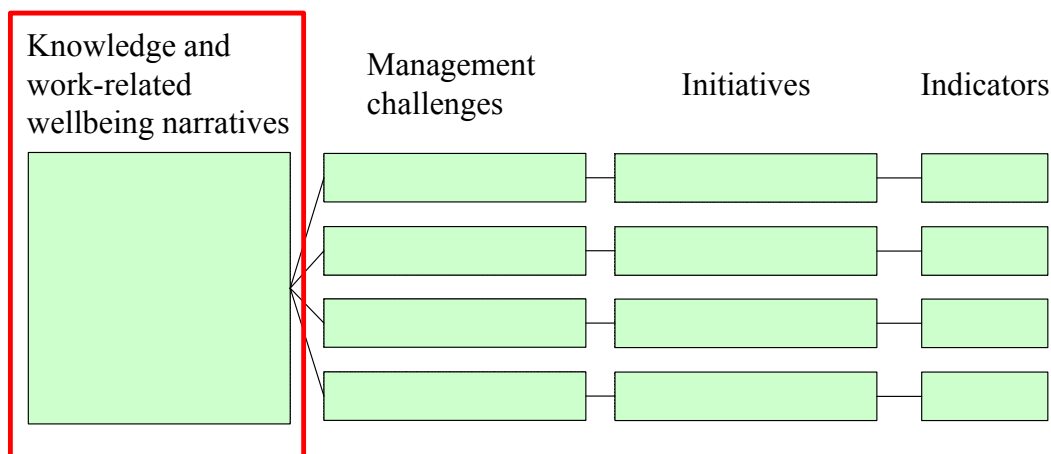
is already considering these topics in a future-oriented way. Development activities are much easier fitted into this kind of a proactive organisational culture.

The last question on indicators is also helpful, because can show that quite a broad variety of monitoring can already be applied in the organisation. It is often more the case that the connections between different indicators have not been considered thoroughly and this results in the sense of dispersed view. Undertaking the process outlined in this model can be highly valuable because it helps to create a coherent view about the organisation's current status.

However, based on the experiences of using this model, it is important to stress that this set of questions is just a starting point and therefore the consultant guiding to process should be careful not to spend too much time with these topics. These questions are difficult and there are no right answers. However, they do help in guiding the thinking towards the themes that are relevant in defining the knowledge and work-related wellbeing narratives. It is suggested that there is a half-a-day workshop as an introduction for the whole process. This introductory session suits well for presenting the theoretical framework behind the model and then using the questions presented above.

## 2.2 Knowledge and work related wellbeing narratives

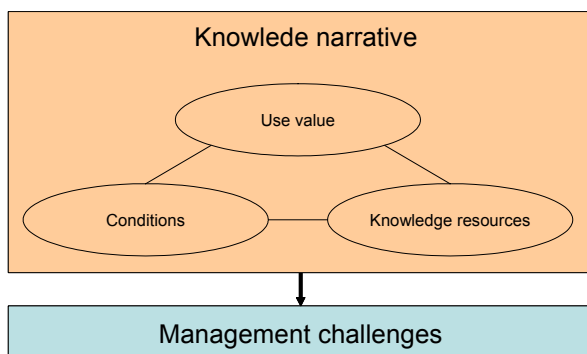
As it was discussed above, based on the chosen approach knowledge and work related wellbeing narratives can be the themes for the first actual workshop.



**Figure 4. Knowledge and work-related wellbeing narratives**

The so-called knowledge narrative is a story about how the company creates value for its users through the utilization of its knowledge resources. The knowledge narrative pinpoints the ambition of the company's knowledge management, because it not only accounts for present performance, but also formulates a strategy for the company's know-how in the future. The knowledge narrative fulfills this objective by describing three elements: How the user is taken into account by the company's products or

services, called use value; which knowledge resources – in the form of employees, customers, processes and technologies – it must possess in order to deliver the described use value; and lastly the particular nature of the product or service. The figure below outlines the central elements of the knowledge narrative. Use value is the essence of what an organisation is able to provide that its customers are willing to pay for.



**Figure 5. Knowledge management strategy**

Knowledge narrative is a presentation of the firm's knowledge resources focusing on how they interact and allow the firm to be capable at doing certain things for the external users. It thus has both a proposition of the firm's "production function" and of the value proposition supplied to the users. Knowledge narrative is a guiding aspiration that connects the user and the firm's capabilities. It shows how the firm is to be capable and why. (Mouritsen et al. 2002.)

In order to formulate the knowledge narrative, companies need to answer the following questions:

- What product or service does the company provide?
- What makes a difference for the consumer?
- What knowledge resources are necessary to be able to supply the product or service?
- What is the relationship between use value and knowledge resources?

The first two questions should not be that difficult because the answer is a statement about the business idea of the organisation. Knowledge resources describe the potential that an organisation has available for fulfilling the business idea. It has to be stressed here that even though emphasis is heavily on the knowledge-orientation, the process view entails the production machinery into this setting, as well. The last question is an important one because it reveals the linkage between business idea and the resources available.

Help questions for defining use value are following:

- What product / service is provided?
- Who is the user?
- What is the relationship between the user and the customer?
- How is the product / service used?
- How does it benefit the user?

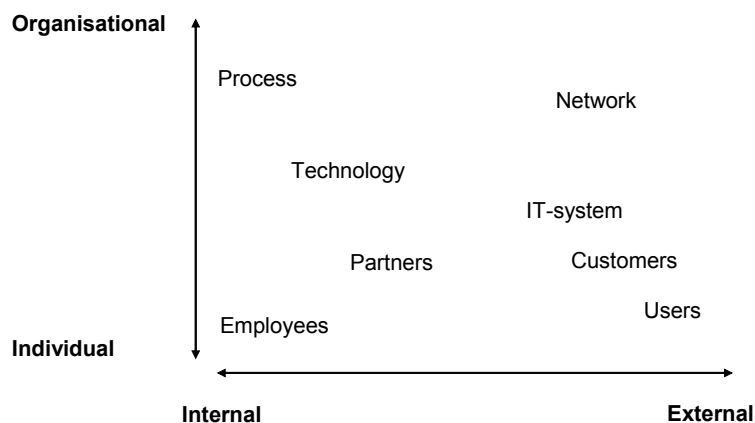
Naturally, the product or service is the starting point of explaining the use value. The distinction between the customer and user refers to the idea that customer is not always necessary the actual end user. In case of training services, for example, it is the employing organisation that is the customer who buys the training service to its employees (the users). On the other hand, a municipality buys health care services for its citizens. The relationship between the customer and the user is quite different in these two examples. The key role of the municipality is to provide services for its citizens where as an organisation fundamentally uses the productive capacity of its employees. In the organisation example the training is used to improve job performance. The benefits for the user relate to improved competencies, for example, and thus better abilities in meeting the requirements of the work tasks.

Predetermined factors are the conditions that must be respected in the development of the strategy for knowledge management. These can be related, for example, to knowledge resources, ownership, user-customer structure, legislation et cetera. Some industries, like pharmaceutical industry, are highly regulated by the legislation and this precondition heavily directs the value creation logics. On the other hand, loosening regulation, like in the case of telecom industry during the recent years, can also be a reality that has to be considered. Ownership can put an organisation into position of a sub-contractor that is owned by its customers. Scarce availability of employees can be a threat for expansion plans. In sum, there can be a great variety of different predetermined factors. Realising these explicitly helps an organisation to create competitive advantage by finding innovative solutions to meet the limitations.

Help questions for knowledge resources are:

- What current knowledge resources
- How can the knowledge resources contribute to the use value?

It is further suggested that knowledge resources should be thought in terms of the categories. The following figure can also be useful.



**Figure 6. Knowledge resources**

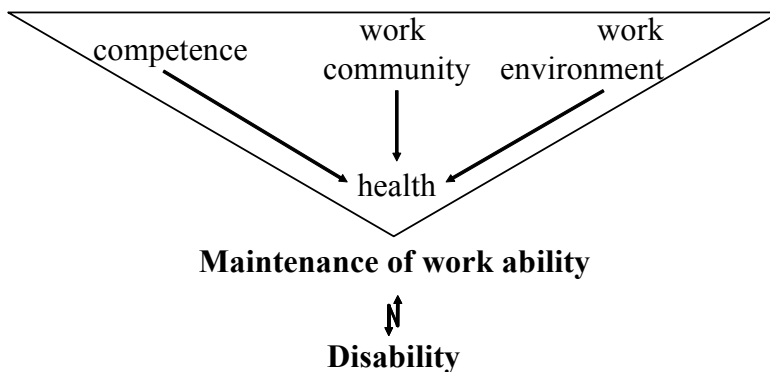
Thinking about knowledge resources in terms of categories means that knowledge resources are not listed in the detailed level in the knowledge narrative. This is because knowledge narrative should be kept in a very limited form, approximately four or five sentences. The closer scrutiny will take place in the initiative section that follows later in the model.

***An example of a knowledge narrative***

*Air traffic control is responsible for safety and efficiency of the flight operations. Fulfilling this task requires that air traffic controllers have the latest technological solutions at their disposal and the competencies to use these tools. Collaboration with the pilots and other actors at the airport ensure flawless functioning and flexible ability to react to even unexpected situations.*

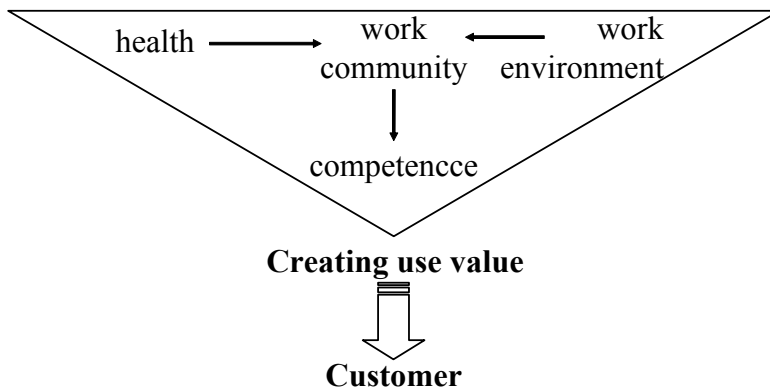
The work-related wellbeing narrative consists of elements that are analogous to those of the knowledge narrative. The first item is the description how work-related wellbeing supports achieving the goals set by the knowledge narrative. In other words, the task is to describe the use value of the work-related wellbeing as a prerequisite for realising the knowledge narrative.

This line of reasoning is a completely new way to think about work-related wellbeing. The traditional logic behind occupational health and safety activities has been the emphasis of relieving work-related health hazards. The business logic has been related to the decreasing costs of absenteeism, accidents and early retirement. The shift can be visualised by the figures created by Hussi (2005c). Figure 7 show that the prevailing perspective of MWA emphasises alleviating work-related negative effects especially on health. This is because the whole MWA framework is argued to be initially established as an approach to reduce the increase of costs caused by work-related disability on the level of the national economy. Improvements in terms of employees' competencies, functioning of the work community and a safe work environment have tended to support health.



**Figure 7. The basic assumption of the current MWA framework**

The IC framework, on the other hand, focuses on strengthening creativeness. Creativeness is aimed at creating use value that the customers are willing to pay for. The central element of creativeness is competence. However, it is important to note that it is not the single individual's competence that makes the difference in knowledge creation, but competence is more a collective phenomenon by its nature and thus work community is another central element. Supporting employees' health improves opportunities to participate in the functioning of the work community. On the other hand, work environment can be designed to support interaction and creativeness. (Hussi 2005c.) This setting is outlined in Figure 8.



**Figure 8. MWA and the knowledge intensive work**

The traditional logic suits well to the work that is based on the physical requirements. Increasing knowledge-intensiveness emphasises heavily other features than physical capability. Since work is undertaken with the mental resources, the significance of mental wellbeing and social skills is emphasised. Accordingly, the connection to the value creation of the organisation is far more complex. The aim of work-related wellbeing narrative is to give a concise description about this connection.

Work-related wellbeing resources are scrutinised from competence, work community, work environment and health points of view, i.e. the elements of the MWA framework. Like the knowledge resources, outlining work-related wellbeing resources visualises the prerequisites of ensuring the value creation but in this case from a bit different angle. As it was discussed above, in knowledge-intensive work, competence is the basis for creating use value for the customer (see Figure 8). However, because competence has to be seen as a collective entity (see Figure 3), work community is another central element.

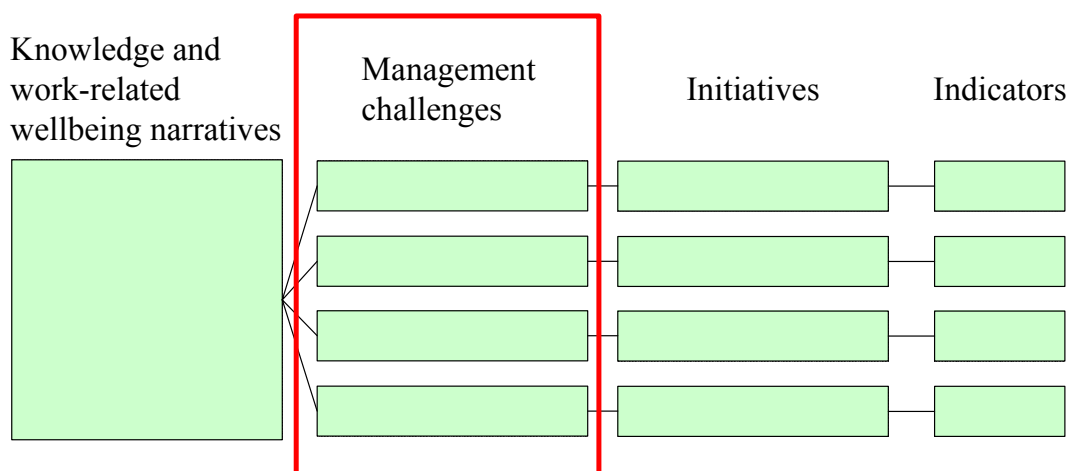
Finally, predetermined factors, in this setting, are related to the features of work that cannot be altered. These could include, for example, shift work and unavoidable psycho-social strain factors, like utmost carefulness in high-risk jobs such as like air traffic control. The police work, for example, is necessarily undertaken in three shifts. Furthermore, it is the nature of the job that policemen can encounter very demanding and perhaps even dangerous situations. It is obvious that these factors cannot be removed from the working tasks but stating them in the narrative gives room for designing support practises that help coping with these situations.

***An example of the wellbeing narrative***

*Because air traffic control is a high-risk job, it requires considerable vigorousness in work. Shift work, which is an inevitable element of the work, puts a challenge on these demands. Therefore, employees must have a good health status as the basis for the vigorousness. The organisation has to engage in activities ensuring the wellbeing of the employees.*

If there are difficulties in applying this outline analogous to the knowledge narrative, it is also possible to try identifying the importance of work-related wellbeing to the value creation. This reflects the positive view and is very similar to importance of work-related wellbeing and the resources that are needed for creating it. The negative point of view discusses the challenges that the value creation of the organisation puts on the work-related wellbeing. Again, the emphasis is rather similar to the predetermined factors discussed above but the conceptualisation can be more easily approached in some contexts.

### 2.3 Management challenges



**Figure 9. Management challenges**

The company's management challenges are a set of meaningful and lasting elements in the managerial agenda that provide continuity in handling the development and composition of knowledge resources. Thus, these management challenges relate to the needs for knowledge management which can be derived from the knowledge narrative and which the company must address in order to fulfill the ambition defined in it. This activity involves a number of strategic choices in implementing the knowledge narrative and is illustrated by answering the questions:

- What challenges is the organisation experiencing?
- Which existing knowledge resources should be strengthened?
- What new knowledge resources are needed?

Management challenges are the efforts management puts in place to develop and condition the firm's knowledge resources. These management challenges are related to the knowledge narrative, as they seek to identify and implement activities that help

realize the knowledge narrative. (Mouritsen et al 2002.) In the process of defining the management challenges, it should be kept in mind that the aim is to look for larger and more comprehensive entities. When companies start thinking about the challenges that have already been faced, there is a natural threat that too detailed approach is adopted. According to the instructions given by the Danish experts, the number of management challenges should be limited into three to five. It is highlighted once more that the initiatives section that gives room for the more detailed scrutiny.

***Example of knowledge management challenges***

1. *Frontline air control systems (Structural Capital = SC)*
2. *Superior employee competence (Human Capital = HC)*
3. *Superior service quality (Relational Capital = RC).*
4. *Necessary regulatory knowledge in the area of flight control (RC).*

From the work-related wellbeing point of view the management challenges section is identical to the knowledge perspective discussed above. Accordingly, the essence is to define central challenges, and development areas regarding the strengthening of current wellbeing resources and observing possible needs for new resources. If we continue considering the air traffic controllers example, state-of-the-art work environment solutions could be an approach to reduce unnecessary strain. Constant training for ensuring to keep up with the changes of the systems could be another management challenge. The management challenges related to the work-related wellbeing should also focus on a more general level because they are more like a link between the narrative and the concrete initiatives.

Since defining the management challenges of work related wellbeing resemble those on knowledge perspective, similar help questions can also be applied:

- What challenges on work related wellbeing the organisation is experiencing?
- Which existing work related wellbeing resources should be strengthened?
- What new work related wellbeing resources are needed?

In this setting, the first question is aimed at charting the observed challenges that are embedded in the work related wellbeing narrative. This part of the management challenges has been characteristic to maintenance of work ability activities because they have often been implemented as a response to observed needs. However, the connection to the narrative relates the activities to the value creation of the organisation. This distinction makes maintenance of work ability activities more goal-oriented considering the strategic objectives of the organisation.

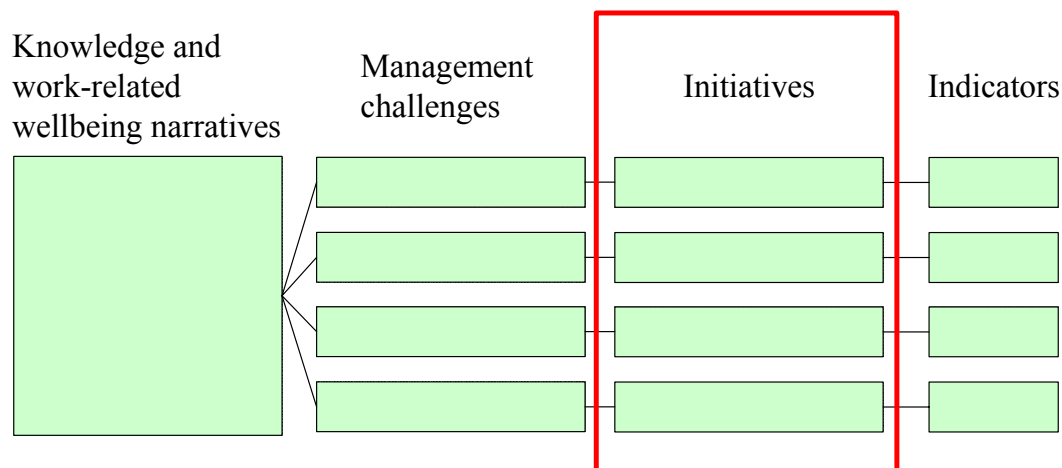
The second question focuses on the areas that need development. This point of view actually takes already a more proactive standpoint considering the work related wellbeing than the most traditional approach. These work related wellbeing resources can be related to, for example, the communication between occupational health services and the organisation, or making a more comprehensive agreement with the service providers.

The third question opens the floor for discussing about the new areas that should be developed it is thus the most future-oriented dimension. Profound changes in the business environment, for example, can create pressure for reorganising activities that are related to the maintenance of work ability. Increasing pressures for flexible service hours is one example of this. The change could require more comprehensive competencies and general understanding about all functions because of shift work.

***Example of work related wellbeing management challenges***

1. *Management systems (SC) needed to ease effects of shift work*
2. *Knowledge about the employees' health (HC)*
3. *Identification of strain factors (SC) in the work environment*
4. *Keeping informed (SC) about latest medical knowledge related to flight control work*

## 2.4 Initiatives



**Figure 10. Initiatives**

The knowledge narrative and management challenges have to take the form of a coherent tale. In this way they constitute the company's coherent knowledge management strategy, which communicates the company's ambition for knowledge management and how it intends to realize this. To develop and compose knowledge resources and the key management challenges, a series of initiatives are made about 'knowledge containers' such as employees, customers, processes or technologies are made to increase or decrease them. Here, it is of vital importance that management takes an active position in relation to which initiatives that can be launched, and which initiatives that should be prioritised.



The process of outlining the initiatives is assisted by specific help tables that are provided below. In the tables the first task is to list the exiting initiatives from both analytical and development points of view. This means scrutinising initiatives that help ensuring suitable knowledge resources, like the employee portfolio, and their development through training, for example.

Secondly, the process proceeds to evaluating the objectives and strategies that lie behind the chosen initiatives. In other words, this part of the process engages the participants to consider the management-based justification of the initiatives that the organisation is undertaking. The idea is to define strategic roots for all the initiatives.

The third part of the process is about evaluation. Besides giving the explicit statement about the objectives and strategies, there should also be at least some kind of expectation for the actual effects that the activities result in. It is noteworthy, that it is these considerations about the strategies and expected outcomes that link the initiatives into organisation's strategy. If these elements are discussed too loosely, it is obvious that the connection does not get organised in the systematic manner.

Finally, the fourth section of the table is about assessing the objective ambitions. This means the process of reflecting whether the initiatives that are being undertaken are actually capable to meet the management challenges. Besides reflecting the initiatives, this consideration also gives grounds for evaluating the relevance of the management challenges. As the Intellectual Capital Statement is highly reflective framework, it has to be kept in mind constantly that the later phases of the analysis can also result in elaborations in the earlier steps.

***Examples of knowledge initiatives***

- *Constant development of ICT systems (Structural Capital=SC)*
- *Benchmarking ICT systems in an international network*
- *Constant training (SC) for keeping employees' competencies (Human Capital = HC) up-to-date.*
- *ISO-certificated systems (SC) to ensure the quality of the services.*
- *Active participation in regulatory networks (Relational Capital = RC)*

From the work-related wellbeing point of view, there are not that many differences in the process. A corresponding help table can be applied, but in this case the focus will be on work related wellbeing resources, which are competence, work community, work environment and health. Even though the emphasis is on the work related wellbeing, the assessment of these initiatives is also related to the value creation capability of the organisation because of the connection between the knowledge and work related wellbeing narratives.

Whereas the strategic connection of the activities aimed at securing the occupational wellbeing was already discussed in connection to work related wellbeing narrative, this phase of outlining the initiatives clarifies the connection even further. Analysing the existing objectives and strategies highlights the strategic assumptions behind the initiatives. Furthermore, the explicit scrutiny of the expectations for the effects connects the work related wellbeing initiatives into the organisation's strategy, like in the case of knowledge initiatives. And finally, the assessment of the objective ambition level builds grounds for evaluating, prioritising and developing also the activities that are related to the work related wellbeing initiatives. This kind of setting that emphasises the strategic elements behind the work related wellbeing initiatives creates a solid strategy-based justification for the implementation of the initiatives.

***Examples of work related wellbeing initiatives***

- *Open-mind policy on individual state of health ("sick-leave any time when needed")*
- *Recurring work climate surveys (SC)*
- *Constant employees' health monitoring (SC)*
- *Identification (SC) of current or forthcoming individual illness or reduced work ability (HC) of individual employees is essential*
- *Active, multidimensional Occupational Health Service*

Table I Help table for defining knowledge initiatives

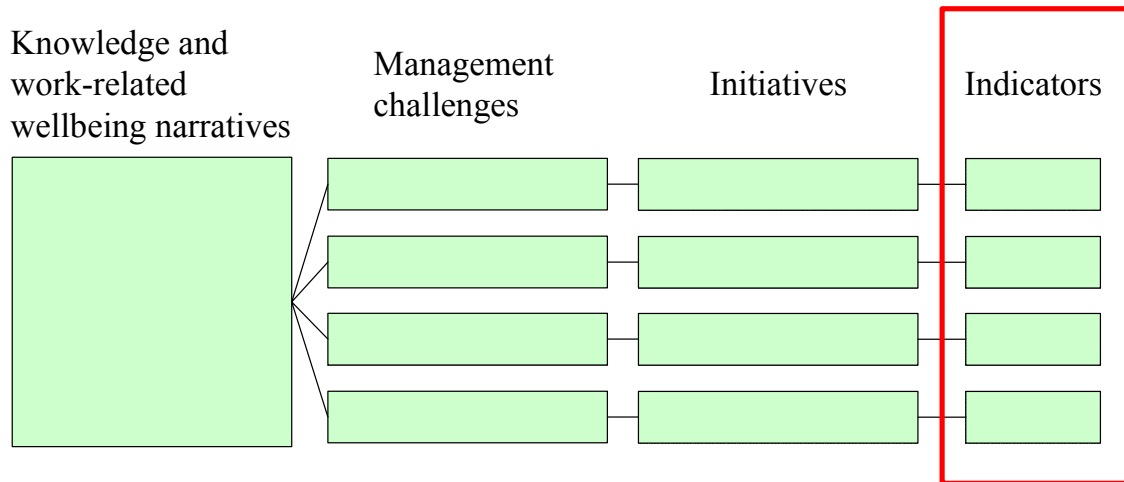
	<b>Existing activities and initiatives</b>	<b>Existing objectives and strategies</b>	<b>Assesment of initiative effect</b>	<b>Assesment of objective ambition level</b>
<b>Customers / users</b>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>• To ensure the right customer portfolio?</li> <li>• To upgrade customer relations and customer competencies?</li> <li>• To promote customer satisfaction?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>• Customer mix?</li> <li>• Upgrading the customer relations and customer competencies?</li> <li>• Customer satisfaction?</li> </ul>	<ul style="list-style-type: none"> <li>• How do the company's initiatives contribute to creating something of a value to the customers?</li> </ul>	<ul style="list-style-type: none"> <li>• Are the existing objectives sufficiently ambitious?</li> <li>• Are some initiatives more critical to success than others?</li> <li>• Do we need to develop new types of actions</li> </ul>
<b>Employees</b>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>• To ensure the right employee portfolio?</li> <li>• To train and upgrade employees?</li> <li>• To promote employee satisfaction?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>• Employee mix?</li> <li>• Training and upgrading employees</li> <li>• Employee satisfaction?</li> </ul>	<ul style="list-style-type: none"> <li>• How do initiatives affect employee contribution to creating a better company?</li> </ul>	<ul style="list-style-type: none"> <li>• Are the existing objectives sufficiently ambitious?</li> <li>• Are some initiatives more critical to success than others?</li> <li>• Do we need to develop new types of actions</li> </ul>
<b>Processes</b> Business processes	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>• To document and rationalise business processes?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>• Documentation and rationalisation of the business processes?</li> </ul>	<ul style="list-style-type: none"> <li>• How does the company create initiatives to develop the value of its business processes?</li> </ul>	<ul style="list-style-type: none"> <li>• Are the existing objectives sufficiently ambitious?</li> <li>• Are some initiatives more critical to success than others?</li> <li>• Do we need to develop new types of actions?</li> </ul>

<p>Knowledge processes</p>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>• To document and rationalise knowledge processes?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>• Documentation and rationalisation of the knowledge processes?</li> </ul>	<ul style="list-style-type: none"> <li>• How does the company create initiatives to develop the value of its knowledge processes?</li> </ul>	<ul style="list-style-type: none"> <li>• Are the existing objectives sufficiently ambitious?</li> <li>• Are some initiatives more critical to success than others?</li> <li>• Do we need to develop new types of actions</li> </ul>
<p><b>Technologies</b> Production technology</p>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>• To ensure the right production technology portfolio?</li> <li>• To upgrade existing production technologies?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>• Ensuring the right portfolio of production technologies?</li> <li>• Upgrading existing production technologies?</li> </ul>	<ul style="list-style-type: none"> <li>• How do initiatives develop the company's production technologies to make the organisation stronger?</li> </ul>	<ul style="list-style-type: none"> <li>• Are the existing objectives sufficiently ambitious?</li> <li>• Are some initiatives more critical to success than others?</li> <li>• Do we need to develop new types of actions</li> </ul>
<p>Knowledge / infrastructure</p>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>• To ensure the right knowledge infrastructure?</li> <li>• To upgrade existing knowledge infrastructure?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>• Ensuring the right knowledge infrastructure?</li> <li>• Upgrading of existing knowledge infrastructure?</li> </ul>	<ul style="list-style-type: none"> <li>• How do initiatives develop the company's knowledge infrastructure enable the company to share knowledge better?</li> </ul>	<ul style="list-style-type: none"> <li>• Are the existing objectives sufficiently ambitious?</li> <li>• Are some initiatives more critical to success than others?</li> <li>• Do we need to develop new types of actions</li> </ul>

Table II Helb table for defining work related wellbeing initiatives

Work-related wellbeing resources	Existing activities and initiatives	Existing objectives and strategies	Assessment of initiative effect	Assessment of objective ambition level
<b>Competence</b>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>To identify competence gaps?</li> <li>To increase the number of multi-skilled employees?</li> <li>To share tacit knowledge?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>Identifying knowledge gaps?</li> <li>Increasing the number of multi-skilled employees?</li> <li>Sharing tacit knowledge?</li> </ul>	<ul style="list-style-type: none"> <li>How do the company's initiatives in competence development contribute to creating something of a value to the users?</li> </ul>	<ul style="list-style-type: none"> <li>Are the existing objectives sufficiently ambitious?</li> <li>Are some initiatives more critical to success than others?</li> <li>Do we need to develop new types of actions?</li> </ul>
<b>Work community</b>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>To ensure social support?</li> <li>To ensure development opportunities?</li> <li>To increase job control?</li> <li>To increase opportunities for participating?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>Ensuring social support?</li> <li>Ensuring development opportunities? -</li> <li>Increasing job control?</li> <li>Increasing opportunities for participating?</li> </ul>	<ul style="list-style-type: none"> <li>How do the company's initiatives in work community development contribute to creating something of a value to the users?</li> </ul>	<ul style="list-style-type: none"> <li>Are the existing objectives sufficiently ambitious?</li> <li>Are some initiatives more critical to success than others?</li> <li>Do we need to develop new types of actions?</li> </ul>
<b>Work environment</b>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>To reduce risks of physical work environment?</li> <li>To plan working spaces so that they support creativity and interaction?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>Increasing occupational safety?</li> <li>Planning working spaces so that they support creativity and interaction?</li> </ul>	<ul style="list-style-type: none"> <li>How do the company's initiatives in work environment development contribute to creating something of a value to the users?</li> </ul>	<ul style="list-style-type: none"> <li>Are the existing objectives sufficiently ambitious?</li> <li>Are some initiatives more critical to success than others?</li> <li>Do we need to develop new types of actions?</li> </ul>
<b>Health</b>	<p>What actions and initiatives have been launched:</p> <ul style="list-style-type: none"> <li>To support physical abilities?</li> <li>To support mental abilities?</li> <li>To support social abilities?</li> </ul>	<p>What objectives exist for:</p> <ul style="list-style-type: none"> <li>Supporting physical abilities?</li> <li>Supporting mental abilities?</li> <li>Supporting social abilities?</li> </ul>	<ul style="list-style-type: none"> <li>How do the company's initiatives in health development contribute to creating something of a value to the users?</li> </ul>	<ul style="list-style-type: none"> <li>Are the existing objectives sufficiently ambitious?</li> <li>Are some initiatives more critical to success than others?</li> <li>Do we need to develop new types of actions?</li> </ul>

## 2.5 Indicators



**Figure 11. Indicators**

Lastly, the effects of the efforts and management challenges described above are monitored via indicators e.g. about staff turnover and job satisfaction, in-service training, turnover split on customers, customer satisfaction, precision of supply etc. (Bukh et al. 2001; Mouritsen et al. 2001b), thus indicating to which extent these have been implemented and thus the status for the company's realization of its management challenges. In the intellectual capital statement, the numbers reflecting the indicators do not show the financial value of intellectual capital. They show the implementation of initiatives tied to management challenges suggested to allow the knowledge narrative flourish. (Mouritsen et al 2002.) Accordingly, the initiatives of the work related wellbeing show the effectiveness of these initiatives in relation to the specific management challenges and work related wellbeing narrative.

### *Examples of knowledge indicators*

- *Number of top-certified flight-controllers*
- *Number of flight-hazard incidences*
- *Rating in top-third in benchmarking comparisons*
- *Rating as preferred employer*
- *ISO-certificates*
- *Score number for the European Quality Award*







### 3 Conclusions and discussion

The model discusses above can be summarised into

Table IV that presents the parallel nature of knowledge and work-related wellbeing perspectives.

**Table IV Outline of the knowledge and work-related wellbeing tracks of the model**

	<b>Knowledge narrative</b>	<b>Management challenges</b>	<b>Initiatives</b>	<b>Indicators</b>
<b>Business content</b>	What is the use value that is provided to the customers? What kind of knowledge resources its production requires? What kind of pre-determined factors are related to its production?	Central challenges that are related to the creation of use value	What kinds of initiatives are aimed at meeting these challenges?	Identifying and interpreting indicators that monitor the influences of the initiatives.
<b>Work related wellbeing content</b>	What are the connections between work related wellbeing and the goals of knowledge narrative?	Central challenges in developing work related wellbeing	What kinds of initiatives are aimed at meeting these challenges?	Identifying and interpreting indicators that monitor the influences of the initiatives.

The two narratives are most closely tied with each other because the work related wellbeing narrative outlines the role of wellbeing in achieving the goals of the knowledge narrative. However, because the knowledge and wellbeing tracks are highly inter-related it is possible that there are close relations in other three elements of the model, as well. This means that there could be some initiatives, for example, that are related to both of the two main tracks.

Even though knowledge and wellbeing are closely related, it still does make sense to take the wellbeing as its own specific track. This is because otherwise there is a chance that knowledge perspective overrides wellbeing because its business implications are more easily seen. As we have discussed already above, employees' wellbeing does have business relevance but sophisticated tools are needed for crystallising this relationship.

***Example of integrated knowledge and wellbeing narrative***

*The Air Traffic Control is responsible for safety and efficiency of the flight operations. The wellbeing and work-ability of the flight control personnel is at the heart of fulfilling this mission. In order to effectively fulfil its mission the Air Traffic Control must possess the latest technology and have a personnel which is concerned about its health and work-ability and devoted to develop its work in cooperation with all relevant stakeholders, including close colleagues and external experts and regulators.*

The primary aim of business oriented promotion of work-related wellbeing is to in an organic way integrate the crucial health aspects of the work and the financial interest of it. In order to do this there has to be a deliberate aim to identify the both interests, their related challenges and initiatives and to set up measurement systems accordingly. Future development of the model might reformulate the strategic focus by integrating the health and wellbeing aspect in the measurement and reporting system in order to help organisations to becoming more proactive. The reformulated knowledge narrative would be a balanced view between the technologically and economically oriented view and the personnel health and safety view. The reformulated strategy could, for example, look like this:

Professor Guy Ahonen, who is the pioneer of the Finnish Human Resource Reporting model has stated that this explicit connection of the indicators to the initiatives and further to the management challenges is the obvious contribution of the Danish model. It can be argued that the Finnish Human Resource Reporting model also contains a description of the use value and about the indicators. However, the description of these intervening elements helps the reader to get a more comprehensive picture about the company's knowledge and work related wellbeing strategy and its practical implementation.

Employees' wellbeing will become even more timely issue in the near future because the labour force is getting older. Age groups are getting smaller after the baby-boomers and therefore ageing employees participating work life is essential for national economics and competitiveness of the nations. Even though wellbeing issues concern all age cohorts, these issues culminate along with ageing. The combination of individual's resources changes considerably and these demands need to be considered carefully.

Even though the MWA framework was introduced almost two decades ago, it seems that the full potential of the framework is not even yet harnessed. The long history has resulted in good familiarity with the MWA framework across the Finnish society. Virtually all members of the labour force recognise this approach and most of those employed have participated some activities under the heading MWA. The need for the further development arises from the fact that most of the activities undertaken as MWA have had a strong emphasis on health related issues. While this point of view is important, it is yet only one dimension and perhaps not even the central one in the modern work life that emphasises the abilities to process knowledge.

The discrepancy between the central framework and its implementation to practice can also be seen in the activities of the occupational health and safety service providers. It seems that the service palette provided for the potential customers is strongly built around the health services. While this approach is valid and easily marketable for the customers, it is difficult to differentiate from other competitors. If the occupational health services providers were able to outline their service palette so that the value for the customers was more clearly presented, this would give obvious competitive advantage.

The model presented above can be seen as a one approach to solve these difficulties. The essence of the model is that it aims at showing the business relevance of the MWA activities. The model is adapted from the Danish framework for creating Intellectual Capital Statements. The selection is based on the finding that the business relevance of occupational wellbeing is strongly related to Intellectual Capital of the company.

Tomi Hussi's dissertation thesis (2005b) scrutinised the theoretical viewpoints related to the connection between intellectual capital and work related wellbeing. Besides many of the models that have been presented in this chapter, Hussi also scrutinised the managerial relevance of the occupational wellbeing activities. This study showed that individual and work community dimensions can be identified in the maintenance of work ability framework. The individual-oriented activities are characterised by a problem solving emphasis. This means that individual level activities are often reactions to the observed problems attempting to solve them. For example, in the case of competencies, there is an aim to overcome the observed competence gaps. Accordingly, problems related to health and work environment also trigger development activities. This problem solving nature of the individual level can be related to the concept of management. Work community dimension, on the other hand, emphasises activities that are related to the prerequisites of collaboration between employees. This orientation includes considerable leadership features. The distinction between management and leadership is important from knowledge management point of view because they are emphasised in the different phases of the knowledge creation process (see Figure 1).

It is obvious that the thesis builds a central basis for the model described in this chapter. However, this model can also be seen as a serious attempt to build a tool that could be used for linking the theoretic considerations into the practical development of the organisations. This development process should still be seen as a-work-in-progress. The process will continue with an evaluative study<sup>1</sup> that will analyse the achievements so far. Furthermore, during fall 2006 there follows a second round of pilot implementation<sup>2</sup> that will be aimed at the state-sector.

As a conclusion it can be argued that this report has described a model that is based on the practises that have turned out to be good on the basis of earlier experiments, namely the Danish work with Intellectual Capital Statements. Secondly, the introduction of the new elements also has a solid theoretical grounding in form of Tomi Hussi's doctoral thesis. Therefore it can be expected that this development process will result in a tool that can be widely adopted for building a connection between the work related wellbeing activities and the company's business strategy.

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<sup>1</sup> This evaluative study is funded by the Finnish Work Environment Fund.

<sup>2</sup> This project will be undertaken in collaboration with The Finnish State Treasury. The funding will be provided by the Valtion Työsuojelurahasto working under the Finnish Ministry of Finance.



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- 2007: 1 Mikael Fogelholm, Olavi Paronen, Mari Miettinen. Liikunta – hyvinvointipoliittinen mahdollisuus. Suomalaisen terveysliikunnan tila ja kehittyminen 2006.  
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