

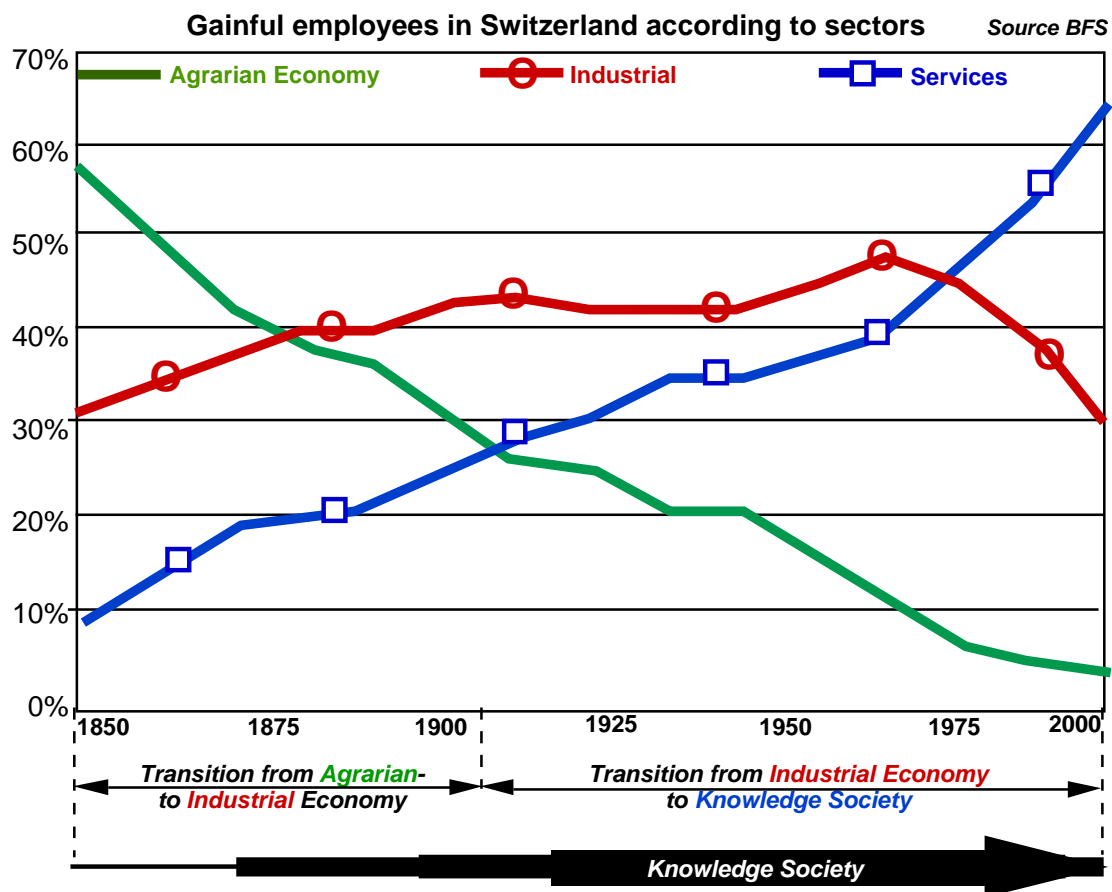
## Core Subject: Knowledge

### Knowledge Management: Vogue word or mandatory for sustainability?

When economic leaders, education experts or politicians discuss the actual challenges of political economics in these days, they use *Knowledge Society* in their standard vocabulary. What is the definition of this term and which impacts has the knowledge society to the concept of sustainability?

#### Historical summary: From the agrarian economy to the knowledge society

In the 19th and 20th centuries changes in the working sectors was a major supposition for sustainable economic growth. Occupational activities have undergone a complete change since 1850: The dominating position of the agrarian economy and forestry shrunk from 60% to less than 5% in 2000. The industrial sector overtook the agrarian economy in the early 1880s, the service sector at the beginning of the next century. Since then, services grew faster than both the industrial and agrarian sectors. 1970 the industrial and service sector had approximately the same number of employees, while today about two out of three receive their income from the third sector.



As a conclusion we observe a transition from agrarian economy towards industry in the late 19th century, while the industrial society was replaced by a service society in the late 20th century. At that time the new term *Knowledge Society* was born: Organisational knowledge (= Intellectual Capital) gains more and more acceptance as being the most valuable resource for a sustainable successful economic future.

## Fundamentals of Intellectual Capital (IC)

Intellectual Capital is often described as the difference between the market- and the booking value of an enterprise. It includes three components:

### - Human Capital

(Potential for future success):

Skills, Know How, Experience and Expertise of the employees. Human Capital is a "loan asset": It varies whenever changes in the staff structure occur.

### - Structural Capital

(Organisational Routines):

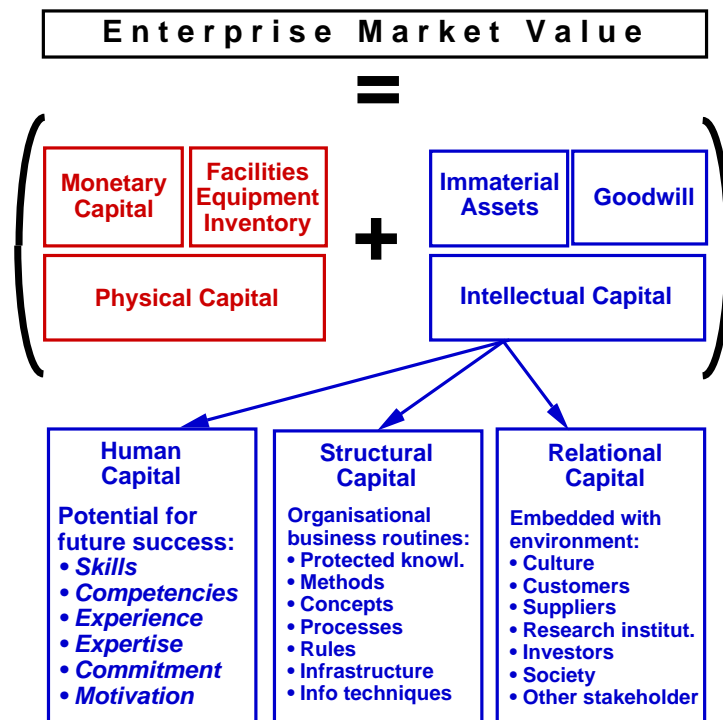
Methods, Concepts, Processes, Infrastructure, Patents and Brands. Structural Capital covers everything remaining in the organisation, once the employees have left.

### - Relational Capital

(Embedded stakeholder relations):

Established relations to suppliers, customers, investors, society and other stakeholders.

The three components of IC are interactive: The Human Capital raises the Structural Capital; both together generate the Relational Capital.



## Sustainable Knowledge Management

It is undisputed that the Intellectual Capital represents the most important asset of a knowledge-based organisation. This value is usually not declared in annual reports and does not appear in conventional analysis models. On one hand the Enron- and Parmalat affairs have raised an increasing demand by investors for full disclosure of intangibles. On the other hand it is amazing, that just the most important resource knowledge doesn't receives its deserved attention in the concept of sustainability. However, there are some serious challenges requiring a sustainable knowledge work, for example:

### - The demographic time bomb:

In the coming years the "babyboomers" (high birth-rate age group after World War II) go towards retirement. Knowledge-driven organisations are well advised to discover their knowledge hosts and to analyse the age distribution of their staff. Knowledge hosts are typically long-term employees with a high firm loyalty (and thus, rather elderly). It is advisable to preserve their tacit knowledge as long as they are with the organisation.

### - Maintaining structural knowledge

Innovations, restructructions, new markets etc. have a direct impact to the organisational knowledge. This produces knowledge gaps, which have to be filled either by buying or developing knowledge. A pragmatic approach is the determination of sub goals for the initiatives, since reaching a goal leads always to alterations, which are measurable.

### - Access on external knowledge sources

Often end users know more about products than suppliers do. A consequent systematic use of this stakeholder knowledge (exceeding common customer satisfaction surveys) is mandatory for the development of new products covering the market demands.

There are established instruments and processes for the sustainable treatment of knowledge. Their application follows the rules of a cybernetic management cycle: Defining status quo > goal setting > initiatives > controlling > new goal setting.

## Interview *Questions asked by Bernhard Stricker, Editor WIV-Newsletter*

### *What means the term Knowledge Management?*

Knowledge Management is somehow an inconsistent term, since knowledge cannot be "managed". But it is possible to work with this resource: Identification, acquirement, development, distribution, usage and preservation are categories of knowledge work. Which human resources, instruments and processes to use for knowledge work, is a management task indeed.

### *How knowledge can be measured?*

Knowledge cannot be quantified as known from the way, how schoolwork taxation is done. Organisation Knowledge (= Intellectual Capital) can be evaluated using an indicator system. The knowledge goals serve to define *key performance indicators* (KPI's). KPI's include metric sizes, measuring intervals, owners, sources of data etc. In the phase of goal setting, the focus is typically concentrated on a single KPI and therefore isolated from the entire coherence. This requires, that after completing the single KPI's definition their dependencies need to be evaluated: causes and effects, interference's etc. are subjects to be investigated. A modified Balanced Scorecard serves to steer and audit knowledge work. ([See Literature 1](#))

### *What means Sustainability in the view of Knowledge Management?*

Knowledge - there is consent - is an important organisational resource. The sustainable treatment of this resource includes instrumental, social and organisational aspects:

- Converting economic goals to knowledge goals
- Discharging obsolete knowledge
- Protecting and preserving of sensitive knowledge
- Identification and retention of human knowledge hosts
- Optimising "Use of knowledge" infrastructure
- Externalisation of tacit knowledge
- Offering incentives for knowledge sharing

### *Is there a distinction between sustainable and "non-sustainable" knowledge?*

Yes, so far as we consider the life cycles of knowledge:

- The explicit knowledge is characterised by a continuously shortening period of decay, what can be compensated partly by a continuing education (catchword life-long learning).
- The implicit (tacit) knowledge shows a reciprocal life cycle: It increases in a long-term process and manifests on its highest level as individual expertise (catchword: hard to replace employee). In context with sustainability it is advisable to address on the attributes of tacit knowledge. ([See Literature 2](#))

### *It looks like, that the very first enthusiasm for knowledge management has converted to a kind of disillusionment?*

In the early nineties global players started Knowledge Management activities. Indeed, some of them experienced a severe sobering. The reasons for this are manifold, for example:

- The exclusive focus on ITC applications. Such tools are useful for an efficient information- and documentation management, but e. g. for knowledge creation; they don't offer much help. "Knowledge has its place between two ears and not between two modems" *Quotation Fredmund Malik*.
- The delegation of knowledge management for a single and isolated knowledge manager in a subaltern position: Managing knowledge work is a leadership task requiring that decision-makers are familiar with the fundamentals of knowledge work.

In the meantime an increasing number of organisations have realised, that knowledge management, so far as fitted to their individual demands, isn't a cost factor, but a value driver. Actually, about 60% of the large enterprises and about 40% of the SME's practice knowledge management activities.

### *What status has knowledge management in SME's?*

That depends, on which sector they offer their products. There is a significant higher acceptance in services than in the industrial sector. Surprising, because interdisciplinary knowledge work is even for manufacturing a key driver for innovative power.

***What is a reasonable approach to Knowledge management for SME's?***

"Never strike an extensive fire, concentrate on single bush fires only" is rule #1! There is a high risk that the not-invented-here syndrome will fight fully back, if the whole toolkit of knowledge management will be implemented at once. First of all, organisations have to define individually, which knowledge is relevant, specific, short or obsolete for its business. This leads to strategic and operational knowledge goals. Selected instruments and processes serve to reach those goals. Supposition is a transparent project communication as well as an adequate understanding about knowledge work by the organisation's decision-makers.

***Where is a context between knowledge and sustainability?***

Compared with all other resources, knowledge owns one specific distinction: It multiplies itself by using and/or sharing it! Thus, the sustainable treatment of knowledge requires new thinking compared to the known ecological, social and economical sustainability efforts.

***Between knowing the sustainability challenges and sustainable acting is still a big difference. What can be done to improve this situation?***

This may work through incentives only! But a bonus/malus is not recommendable, since that generates usually pressure. The best incentives are case studies, which show material benefits. A good example is *Striking the Balance* of WBCSD: This publication describes, how sustainable efforts contribute to monetary value creation.

This effect is not limited to global players: The Swiss manufacturer Schweizer-Metallbau (headcount 500) respects for more than 10 years all aspects of sustainability in its business attitudes. Actually this SME benefits besides in gaining a high reputation even in their economic results from its consequent sustainability efforts.

***How should the commitment to knowledge influence the annual reports?***

Here we are behind the Scandinavian countries: Nordic enterprises publish Intellectual Capital Reports in addition to their common annual reports, which are based on financial figures. Such IC reports allow stakeholders (especially investors) insight in the innovative power of enterprises. In this context it is remarkable, that the SAM-Group (runs the Dow Jones Sustainability Index *DJSI*) recently included the intangibles to their questionnaire. Financial markets are still somehow reserved concerning intangibles. But it is obvious, that the non-accountable assets gain more and more attention, where the recently Enron and Parmalat crises supported this new thinking. ([See Literature 3 & 4](#))

***What is the actual status of scientific knowledge research?***

Since 1986 (Polanyi) is known and accepted, that implicit (tacit) knowledge is the key driver for knowledge creation. Nevertheless scientific research emphasises still on the descriptive (and therefore easier to handle) explicit knowledge. Besides that, the ratio between conceptual and application-tending publications is 70:30 %. There is still a lot to do!

***You're offering now a new teaching module on sustainability management and sustainability reporting. What is else and/or new compared with existing curricula?***

Those are the timeframe and the taxation of the teaching goals. "Normal" sustainability curricula last 2 - 4 terms and impart Know How on expertise level. My teaching module is positioned as education for the strategic minded management and for specialists on corporate communications. Its teaching goals are solid skills to accompany sustainability activities and -reporting. New is the inclusion of Intellectual Capital aspects in the sustainability framework. The teaching module comprises 20 - 30 lessons. It can be added to postgraduate studies (e.g. strategic leadership) or used in reduced version as a topic for workshops and/or for seclusion events.



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**Literature and Links:**

**1) Sustainability in Context of Knowledge Society and Demography**

T. Auer / *Schweizer Arbeitgeber*, 25. Sept. 2003 /

**2) Wissensaustausch fördern (German\*)**

T. Auer / *Alpha-Kadermarkt* 26. Mai. 2002 /

\*An English translation is available from the author: [auer@hrm-auer.ch](mailto:auer@hrm-auer.ch)

**3) Intellectual Capital Statements - The new Guidelines**

Danish Ministry of Science 2003 /

[www.vtu.dk/icaccounts](http://www.vtu.dk/icaccounts)

**4) Intellektuelles Kapital - Eine Benchmarkgröße? (German\*)**

T. Auer / *Wissensmanagement - Das Magazin für Führungskräfte (Germany)* 26. Mai 2004 /

\*An English translation is available from the author: [auer@hrm-auer.ch](mailto:auer@hrm-auer.ch)

Additional papers and docs can be obtained through [auer@hrm-auer.ch](mailto:auer@hrm-auer.ch)

**Working Paper Intellectual Capital Portfolio (ICP)**

Guideline for Internal IC Measurement

**Flyer KEEP (Know How-, Experience- & Expertise-Preservation)**

Process Model for Transfer of Tacit Knowledge within Organisations

**Teaching Module Knowledge Management**

30 Lessons; Supplementary Education for Management & Leadership Curricula