



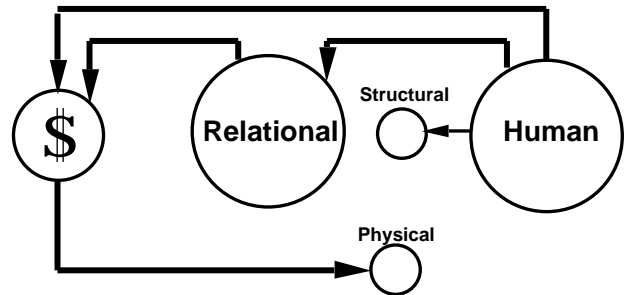
The importance is in the way resources are deployed, which allows the transformation from one resource into another. To obtain satisfactory evidence, the indicator metrics needs to be put in context: monetary value can, for example, be created through selling a process (organisational resources transformed into monetary resource) or new organisational Capital can be created through externalising tacit knowledge into a process (human resources transformed into organisational resources). Each organisation has to define for itself, what their equitable knowledge resources are, these should be treated and developed in sustainable manner. In addition, IC statements can be used to communicate knowledge management's objectives, initiatives and results to a number of target groups (\*3). Investors, for example, don't need to rely on financial numbers only; they receive insight in the organisation's ability to survive future competition. But even the standardised IC evaluation is a big challenge (\*4.5), since benchmarking requires a common measure for all, while knowledge based organisations set different priorities (\*6) in their knowledge work.

### Navigator models revealing value creating resources

The impact of IC transformations on value creation can be assessed and visualised through the Intellectual Capital approach with a "Navigator", a model revealing all the value creating resources (tangible and intangible), their transformations and the relative importance of the resources and transformations for value creation. The claim for a standardised IC evaluation can be partly fulfilled by reducing the large number of different organisational structures down to two navigator models, which are valid for services (model X) and industry (model Y).

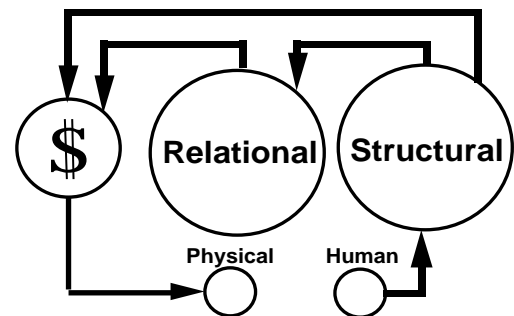
#### Model X: Human Centric Navigator

The navigator shows an organisation that relies heavily on its human and relational resources. It does need some monetary resources, but hardly any physical or structural resources. This is an organisation focused around very knowledgeable and competent individuals who use these attributes to form personal relationships with their clients and to deliver value. The organisation survives and thrives thanks to low fixed costs and high billing rates and margin. Typical examples are consulting services and providers of individual products (e. g. software). Some of the money that is earned is used to sustain the relationships with clients and some to maintain and develop the competence of the individual. The quality of the products or services delivered may vary according to who is doing the job.



#### Model Y: Structural Centric Navigator

This organisation places a much more emphasis on its structural resources and is less dependent on bright individuals. This does not mean that people are not important, but their relative importance is lower. The best people are used to develop processes which are "activated" by less skilled employees. There is more codification and rules and the company may have higher fixed costs and lower margins than a people centric one. Typical here are all kind of manufacturing, the chemical industry and public services. Product quality is more standardised and therefore a more system-focused approach is evident.



The relative importance of the three IC categories shall be considered in the evaluating process. Value creating patents and strong brands, for example, may play a major rule in model Y, but have almost no significance for model X organisations. In the human capital of model Y the identification or retention of the knowledge hosts and the externalisation of their tacit knowledge a matter of survival (\*7). In model X the knowledge hosts are known per se, while efficient stakeholder communication and collective knowledge development belong to the most important resource transactions. Depending on the type of organisation, different IC aspects dominate (\*8). Thus, a generally accepted IC evaluation, as required by the financial markets, cannot be fulfilled or at best partly (\*9).

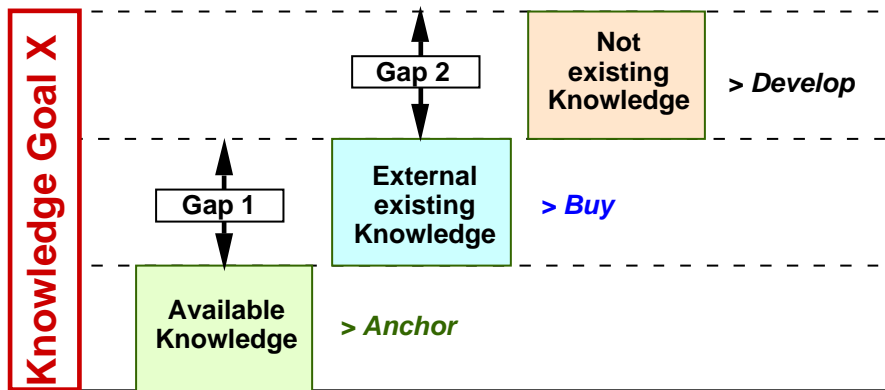
In addition, many organisations refuse to disclose their IC data. They declare them as strategic and secret information, which are reserved for the internal IC management. IC data demonstrate how resource processes contribute to competitive advantage (\*9). IC oriented organisations show (somehow legitimate) reservations, since the newly realised advantages might be negated by full IC transparency.

### IC-Benchmarking

The impossibility of comparing IC data in a standardised and benchmarked manner requires an alternative IC evaluation. Instead of identifying specific IC data their value is compared to previous defined knowledge goals leading to an anonymous benchmark in percentages.

- Defining knowledge goals

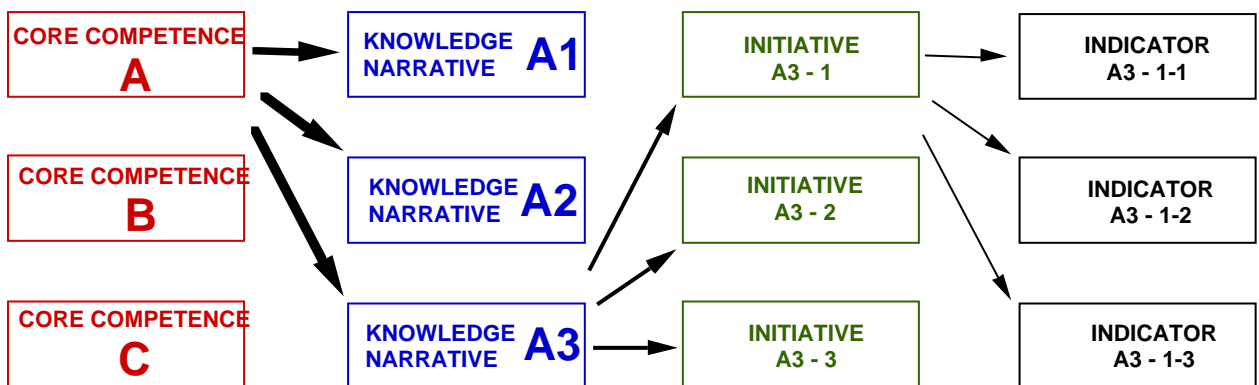
Innovations, restrictions etc. have a direct impact to the organisational knowledge. This produces knowledge gaps, which have to be filled either by buying or developing knowledge.



Source: Wissen managen, Probst et al, ISBN 3-409-39317-X

- From core competencies to indicators

For core competencies strategic and operational goals (knowledge narratives) are defined. The number of necessary initiatives depends on the complexity of the narratives. The effects of the initiatives are measured with derived indicators. Those are key figures showing metrics, time frame of measurements, owner, data source etc. Indicators shall be long term accessible, reliable and calculable. A pragmatic approach is the determination of sub goals for the initiatives, since reaching a goal leads always to alterations, which are measurable.

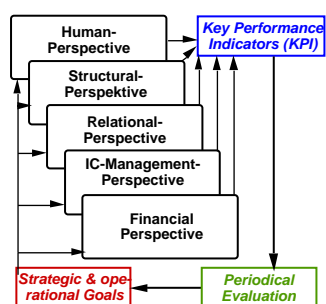


*What product or service does the organisation provide?*

*What knowledge resources are essential for core competencies*

*Implemented initiatives to manage relevant KM resources*

*Selected Indicators to measure effects and activities of initiatives*



A derivative BSC application combining the strategic and operational planning measures in pre-defined intervals the degree of fulfilling of the knowledge goals. This key figure is shown as a percentage size and serves as a benchmark. Its anonymous character considers the required secrecy concerning sensitive IC data. However, this indicator is (like financial figures) retrospective: This method does not produce a prospective statement, since that would be bounded at the revelation of IC data. Thus, an alternative approach is required to define a prospective statement. To get insight in the future IC development an IC assessment evaluates the tools and instruments. This is comparable with

the established ISO-9000, where the resulting product quality isn't the subject of interest, but the efforts to reach quality including the documentation and traceability. Suitable is a common assessment that weights IC processes and - instruments according to the different characteristics of the two navigator models. In other words, an IC assessment doesn't compare quantified IC data (indicators), but documents provable actions (instruments & processes) for sustainable IC management.

The architecture of the assessment includes, besides the three IC categories, generalised aspects of IC management. On one hand definition of the organisations rules for knowledge work; on the other hand top management's commitment to knowledge work creates the preconditions for a knowledge based organisational culture. Thus, positions 1.1. - 1.3. are necessary criteria, whereas positions 2 - 4 include measurements which may be neglected, if their non-relevance is conclusively shown.

<b>IC Assessment</b>		<b>M = Must</b>	<b>NTH = Nice To Have</b>
<b>1. IC Management</b>		Model X	Model Y
1.1	- Existing IC Policy (Normative knowledge goals)	M	M
1.2	- Commitment to IC Policy by the CEO	M	M
1.3	- Periodic IC management audit (at least annually)	M	M
<b>2. Human Capital</b>		Model X	Model Y
2.1	- Employees Skills & Knowledge		
2.1.1	Annual qualification meeting (> Determining individual knowledge goals)	M	M
2.1.2	Maintaining a central Skills-Register (Skills matrix)	M	M
2.1.3	Survey of Employee Satisfaction	M	M
2.2	- Systematic reappraisal of internal knowledge hosts		
2.2.1	Selection process performed with socio-technical methods	NTH	M
2.2.2	Use of- & maintenance of knowledge maps	M	M
2.3	- Externalisation of implicit (tacit) knowledge		
2.3.1	Informal exchange opportunities (Coffee-Corners etc.)	NTH	NTH
2.3.2	Periodic interdisciplinary workshops	M	M
2.3.3	Controlled transfer of implicit (tacit) knowledge	NTH	M
2.4	- Retention of knowledge hosts		
2.4.1	Established incentive system	M	M
2.4.2	Early warning system for knowledge hosts "at risk"	NTH	M
2.4.3	Systematic motive research of voluntary resignations	NTH	M
2.5	- Collective knowledge development		
2.5.1	Use of internal Best Practices	M	NTH
2.5.2	Use of Think Tanks and learning arenas	M	NTH
2.5.3	Use of established creative methods	M	M
2.7	- Organisational suggestion scheme	M	M
2.8	- Incentive system for knowledge sharing	M	M
<b>3. Structural Capital *)</b>		Model X	Model Y
3.1	- Systematic <i>Lesson Learned Program</i>	M	M
3.2	- IT Infrastructure	M	M
3.3	- Experts disclosure (Yellow Pages)	NTH	M
3.4	- Codification of information management (common vocabulary)	NTH	M
3.5	- Controlling of formalised knowledge	M	M
3.6	- Security procedures for sensitive knowledge	NTH	M
3.7	- Systematic livelihood of the knowledge-use intensity	M	M
3.8	- Internal Benchmarking	M	NTH

\*) Patents and Brands belong to the Structural Capital. They are the only IC components producing financial account values.

4. Relational Capital		Model X	Model Y
4.1	- Institutional use of stakeholder knowledge	M	M
4.2	- Maintaining Knowledge-Links (Research institutions, societies etc.)	NTH	M
4.3	- Customer communication	M	M
4.4	- IC statements to selected stakeholders	M	M
4.5	- External Benchmarking	M	M

## Conclusion:

It is undisputed that an efficient IC management generates and/or secures competitive advantages, which are hard to copy. Similarly, there is an increasing interest in intangibles by stakeholders (especially by financial analysts). They are asking for a standardised IC benchmark tool. This produces a conflict of interest: *Secrecy of IC Data vs. Stakeholder Communication* and the challenge to set up a *standardised benchmark for different knowledge work*. This requires a conjoint measurement system that fulfils the demands of all concerned parties. These challenges are faced with a dual evaluation system: The gaps between defined knowledge goals and the actual IC status is declared as a percentage size serving as a retrospective benchmark. To get a prospective benchmark an IC assessment is used, which doesn't focus on WHAT (resulting IC data), it measures the HOW (implemented and documented processes and tools). Standardisation is reached by using two navigator models (covering 95% of the occupational activities) at a high level. The limitation of the IC assessment is its large bandwidth of interpretation. To receive the necessary acceptance for such a tool, a descriptive standardisation is needed, that creates the rules.

## Literature

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