

Knowledge Management Consulting Method

Part 4 – KM Development Plan

Module 4.5 Developing Knowledge Asset Measures

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Introduction

An Overview of the KM Consulting Methodology

The KM Consultancy Methodology enables structured thinking and planning for a knowledge management project. The KM Consultancy Methodology is designed to be modular so that an organisation can choose to start at different levels depending on its readiness, needs and requirements.

The KM Consultancy Methodology is divided into 6 parts of learning and activity. Part 1 concentrates on KM Education, understanding what KM is, the terminology used and why it is important. Part 2 introduces the individual to the importance of KM frameworks, and more importantly, the framework used for the KM Consulting Methodology.

Parts 3, 4 and 5 focuses on the planning, developing and implementing KM within and organisation. This involves looking at the initial or the planning stage of the strategic planning for knowledge management, in Part 3. Part 4 looks at developing the knowledge organisation, looking at how to KM enable the organisation and the need to iteratively develop the KM initiative. Part 5 looks at implementing the KM initiative, from a small pilot project, to a organisation wide KM roll-out and then to an inter-organisation wide KM roll out.

Part 6 focuses on the knowledge and skills required to successfully conduct KM on a daily basis. This involves fundamental skills, such as utilising the KM system and working effectively as virtual teams through to understanding the new roles and responsibilities of the Chief Knowledge Officer, Knowledge Manager, Knowledge Administrator and the Knowledge Workers.

Part 7 introduces the 9 steps of the KM Process. The KM process enables organisations to introduce, implement and assess how an organisation can become KM enabled. This part will introduce the 9 Steps and describe their purpose and importance. A KM Maturity Model is introduced to allow users to start assessing how effectively they are KM enabling their organisation/process/project.

Part 4 - Develop the KM Organisation

Part 4 of KM Consulting Method concentrates on developing the KM organisation. There are six different modules as follows:

- Modules 4.1 are an audit-leverage pair that focuses on business processes.
- Modules 4.2 are an audit- leverage pair that focuses on organisational structures and networks of people.
- Modules 4.3 are an audit- leverage pair that focuses on technology issues.
- Module 4.4 focuses on the development of the underlying model for knowledge asset organisation and is essential for the customisation of KM System tool, such as Knowledger.
- Module 4.5 focuses on the knowledge assets measurements
- Module 4.6 is a module that synthesises and documents the changes that the organisation is implementing as a result of the knowledge management initiative.

The purpose of this Part 4 is that it is iterative in nature, where an organisation will constantly analyse and leverage the knowledge for continuous further improvements. Modules can run in parallel and can be repeated several times throughout the knowledge management initiative. Three simple steps underlie the proposed iterative approach. First, diagnose the most critical problems and opportunities facing the organisation with respect to knowledge management and sketch out a possible solution. Second, quickly, over a few months, translate the sketch of a solution into new work processes and systems; include new ways of working as well as new computer systems, and begin using both for real. If, for example, the problem at hand is customer knowledge management, use the new process to manage some important customers at several offices (or business areas). Given this real-world experience, determine where these new processes and systems succeed or fail, and quickly fix the failures. In other words: do it, then fix it. Third, scale up systems for rollout across the whole organization. Communicate the proven success of the trials in order to build momentum for change.

The essence of the iterative prototyping approach is rapid learning from doing. Speed ensures that change is always relevant, it forces trade-offs so that limited resources are devoted to pursuing goals of real value, it allows top people to participate in change, and it builds unstoppable momentum. Trying out new ideas in the real world allows their shortcomings to be rooted out by the harshest of tests - real-world experience - and their successes to be proven beyond challenge from the most cynical critics. By stressing speed of change and using the real world as a laboratory to learn from, the iterative prototyping approach makes change and improvement a constant fact of corporate life.

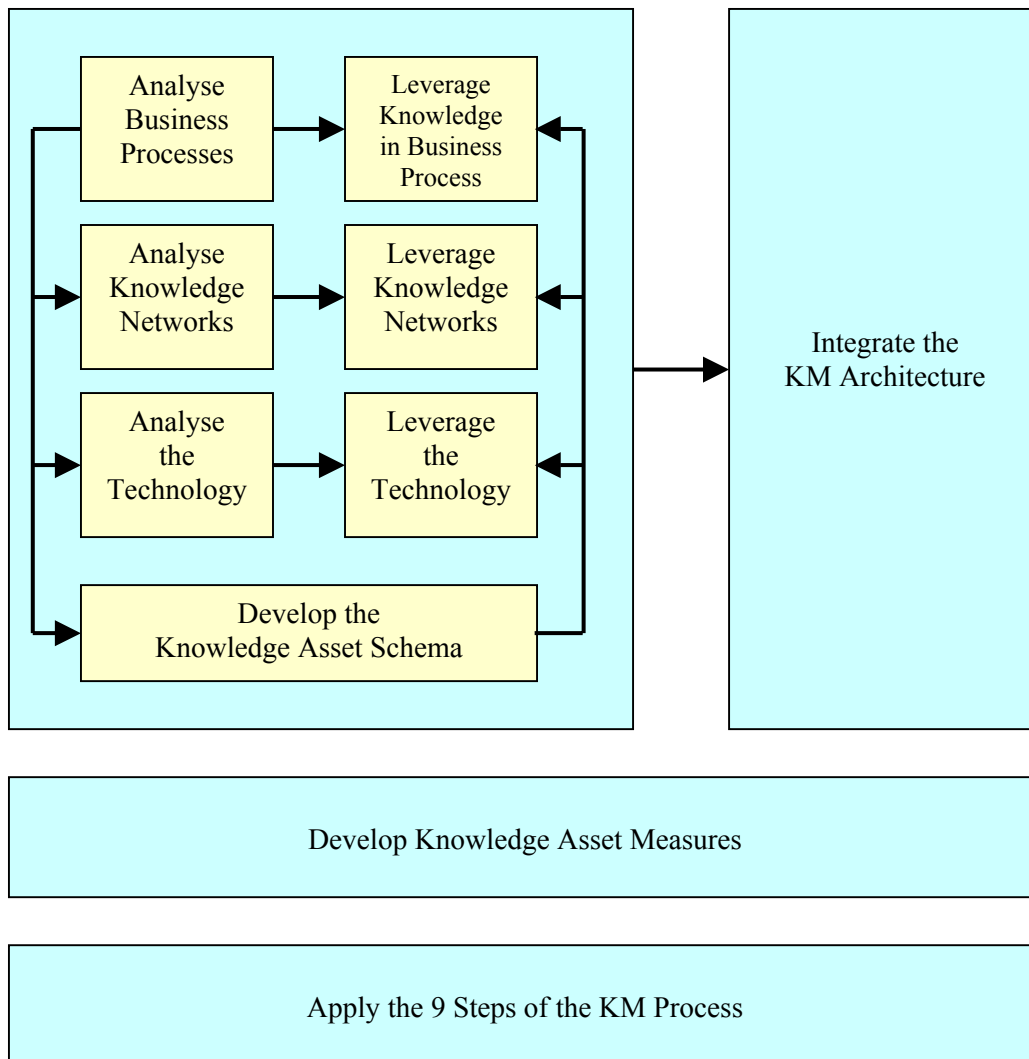


Figure 1 – Develop the KM Organisation

Summary of Activities per Module

Module		What is it used for?	Who is involved?	What are its prerequisites?	Comment
4.1	Analyse Business Processes	This module helps you audit the knowledge requirements of business processes.	Consultant and employee that 'governs' BUSINESS process. Additional interviews with employees involved in process.	High-level identification of key knowledge assets and key business areas of the organisation.	This module is useful: in relatively structured environments when there is a need to better manage knowledge in specific business processes
	Leverage Knowledge in Business Processes	To design and implement additions / modifications in business processes to improve knowledge management within process	Consultant and employee that 'governs' business process. Additional interviews with employees involved in process.	An analysis of the existing process; Knowledge Asset Schema	
4.2	Analyse Knowledge Networks	This part of the module helps you understand the informal flow of knowledge within networks of people in the organisation.	Consultant and Change Agent. Additional interviews with people in knowledge networks.	High-level identification of key knowledge assets and key business areas of the organisation.	This module is to be used only in environments that there already exist informal networks of people that focus on a specific knowledge asset or business area
	Leverage Knowledge Networks	This part of the module helps you design and moderate Knowledge Networks within the organisation.	Consultant and Change Agent. Additional interviews with people in knowledge networks.	Knowledge Asset Schema	This module is used by organisations that wish to build communities that will be collecting, storing and advancing key knowledge assets of the organisation. Particularly important for dispersed organisations.

Module		What is it used for?	Who is involved?	What are its prerequisites?	Comment
4.3	Analyse the technology	Asses the current state of IT in the organisation and identify existing information sources	Consultant, Change Agent, CIO, IT director or similar		This module supports the integration with existing enterprise systems.
	Leverage the technology	Present the technology element in knowledge management	Consultant, Change Agent, CIO, IT director or similar	Ideally Modules 4.2 and 4.3	
4.4	Develop the Knowledge Asset Schema	Design the knowledge asset schema, knowledge objects and attributes, and ontology	Consultant with Change Agent		This module provides essential input for the design of the knowledge repository.
4.5	Develop the knowledge asset Measures	To measure, track and report on the organisations knowledge assets	Consultant with Change Agent	Knowledge Asset schema	This module is essential for knowledge accounting
4.6	Implement the KM architecture	Helps integrate people, process and technology changes into one holistic solution	Consultant with Change Agent		Practical tips on integrating the people, process and technology changes. Addresses cultural issues.
4.7	Applying the 9 Steps of the KM Process	To KM enable the organisation/process/project. To monitor and measure the progress of KM enabling your organisation.	Consultant with Change Agent	A clearly defined area to be KM enabled	This module supports integration of the KM process within an organisation.

Module 4.5 - Develop the Knowledge Asset Measures

1.0 Introduction

This section we describe a process for developing these measurements.

In developing this process, we have remained cognisant of the facts that:

- Measurements cannot be developed independent of the rest of the KM Consulting Method.
- The development of measurements is an integral part of drilling down from the strategic view of any organisation to a single critical knowledge asset.
- In any intervention, the use of the CEO and Management Team's time must be and be perceived as being effectively and efficiently utilised.
- A well planned workshop is the most effective means of gaining common understanding and agreement of executives.

In essence we start from the simple premise of 'What gets measured, gets managed.'

The process of agreeing and defining your measurements is extremely important. This is when shared understanding and common language is developed and the links are made to strategy so that communication throughout the organisation is consistent.

It is also important to recognise that as your understanding of intellectual capital concepts and knowledge of your business and industry grows so does your ability to fine tune your measurement systems. At the most pragmatic level, the idea is to start measuring something. Quite often this will start with the simple counting of things, followed by a need for a quality dimension to be introduced. Insights about interactions between variables, combinations of measures and redundancy of some measures form the basis of longer term improvements to your measurement system.

At this point we would also like to offer a word of caution in relation to the development and intent of the measurements. Some care should be taken to resist attempts at subverting these measurements into delivering a system for punitive action. Such an intent, whether explicit, implicit or only perceived will negate the positive impact of creating and sharing knowledge within an organisation.

The process for developing the measurements is shown in Figure 1.1. We start Top Down: identifying the organisation's vision, strategy, critical success factors (CSFs), the business performance measurements for those critical success factors and the key

knowledge assets that should be associated with the CSFs. The CSFs and their business performance measurements can then be cross referenced to Knowledge Asset Schema.

We then switch to a bottom up process: starting with the knowledge assets identified for each of the key CSFs and developing the knowledge asset measurements for them. These are then cross referenced to Knowledge Asset Schema.

THE KNOWLEDGE ASSET MEASUREMENT PROCESS

Evaluate Your Strategy

Ask How do you achieve above normal returns?

Identify your Critical Success Factors

Ask What are the CSFs to succeed in your strategy

Document Measurements for these CSFs

Ask How do you measure these CSFs

Ask What should you be measuring for these CSFs

Document high level snapshot of measurements

Identify your Key Knowledge Assets

Ask What are your intangible and knowledge assets?

Ask What are the assets associated with your CSFs

Ask Do your existing assets match those needed to support your CSFs?

Develop IC Asset Measurements

Ask How do you best measure these assets?

Agree and document bottom up developed details of measurements

Implement/Pilot the Measurement Systems

Enhance and integrate reporting systems

Establish Continuous Review Cycle

Introduce review cycle for measurement system

Ask Is this measure useful, indicative etc?

Ask is there a better way to do this?

This module has been written on the basis that no previous related modules have been undertaken, so individuals are able to gain the overall picture of developing knowledge asset measures. We shall briefly explain the rationale behind each step of the process to determine measurements, the key activities and the main actors inside the organisation.

This measurement process being discussed can be used for organisations whose final goal is creating a comprehensive or partial Knowledge Asset Measurement System that will allow them to leverage and sustain their knowledge management and intellectual capital management activities.

Obviously the champion and/or project manager of the initiative should be present for all steps.

2.0 Evaluate Your Strategy (Step 1)

Evaluate Your Strategy:

Ask How do you achieve above normal returns?

It is important to stress that no intellectual capital (IC) measurement system is of value, if it is not linked to strategy. There are two reasons for this.

First, as we mentioned time and again, no universal IC system can work for all organisations. Very simply, intangible assets are too diverse to be captured by the same indicators/measurements. Thus, an indicator that would be extremely illuminating for one company, in one industry, will be utterly meaningless in another context.

Secondly, not all indicators in an IC system will be equally important to all organisation. Though an organisation might include several indicators in the system, it is important that the members know and share the prioritisation of indicators. It will be impossible in fact to improve most indicators at the same time: trade-offs will have to be made, and some indicators will receive a higher priority because it is believed that their link to profitability is stronger. Thus, it is important that everybody in the company knows this, and works in the same direction, to avoid dangerous situations where the actions of two separate organisational units conflict with each other and make each other's effort meaningless.

The best way to prioritise indicators and assets is through strategy: this should give the whole organisation a single, clear statement of which knowledge/intangible assets are to be considered more important, and which ones can instead be sacrificed for the greater good.

Thus, at this stage, the top management team should spell out in clear terms the long-term strategy for the organisation. This is not the appropriate forum to start discussing what is long-term strategy, and what are the differences between strategy and other terms often used in the literature with similar meaning like vision, mission, objective. Suffice it to say, that for the purposes of an IC model, a strategy should be a statement of the company's long-term objective, as well as an indication of how to achieve it.

Strategy should answer the fundamental question, for companies: "How do we plan to achieve above normal returns?" For non-profit organisations, the organisational goal and reason of existence must be deduced first. The strategy statement should also make very clear what category/categories of IC are most important for the organisation and its success, thus supplying a way to prioritise IC categories first, and indicators (as we will see later) afterwards.

The process to develop the measurements starts top-down, preferably in a workshop forum. The broad and long-term view necessary to be aware of long-term strategy makes this phase the almost exclusive domain of top management. Note that this consideration abstracts from the mode of generation of strategy, i.e. the strategy process. The virtues and disadvantages of both top-down and bottom up approaches have generated an immense debate (and the corresponding literature), which we this module will not delve further into get¹.

The ideal format is a one or two day workshop with the top management team, where the consultant/change agent facilitates the discussion and tries to generate a common understanding of the company's strategy. Though it is not necessary that strategy is fixed in a written document, we found that it helps the workshop participants focus their discussion, clarify their statements and invite further discussion on issues that everybody agreed upon orally. It will also make it easier to communicate the strategy to the rest of the organisation, possibly remaining open to further suggestions from and discussions with other members of the organisation.

¹ For more information on the strategy process debate, see Mintzberg (1994), Mintzberg *et al.* (1996), Nonaka (1988).

3.0 Identify your Critical Success Factors (Step 2)

Once the strategy is clear and shared by the whole top management team, it is possible to move to the next steps. At this point, two activities must be carried out, relatively independently:

- Identifying your Critical Success Factors (Step 2).
- Identify your Key Knowledge Assets (Step 4).

Identify your Critical Success Factors

Ask What are the CSFs to succeed in your strategy

Identifying critical success factors (CSFs) means identifying the most important activities and processes the organisation has to get right, in order, to reach the goals outlined in the strategy. In a way, this means nothing more than making the strategic goals clear and operational, or translating them into an understandable format. Note that CSFs are not yet pure indicators: they only outline the special activities and processes, but do not yet give concrete measures to identify the degree of success (although these measures can be obvious). Thus, examples of CSFs include: product development, inventory reduction, time-to-market, customer service, quality and innovation focus. However, the specific dimensions of these activities that the company needs to monitor are not specified.

There is no numerical limit to CSFs, and indeed complex strategies might require good performance in a high number of different activities. All the same, parsimony should guide this phase, as the enumeration of many separate CSFs will cause the company to spread its attention thin, with predictable negative consequences. Thus, it is essential to boil down the list to a manageable number (five is a good benchmark).

Logistically, identifying the CSFs is once again a task that requires managers with a broad exposure to all parts of the company, who can see the big picture. Thus, this second step of the process is top-down as well. Also, cognitively speaking it is easy to perform this activity soon after the strategy statement has been finalised. Ideally, there would be a one, two or three day workshop where the strategy is set out, and the CSFs are identified. If that is not feasible then the two activities can be split, with a half, one or two day workshop dedicated to each. It is however essential not to have too much time pass between the two workshops.

4.0 Document Measurements for these CSFs (Step 3)

At this point, the CSFs can be translated into concrete indicators that measure the company's performance. Each CSF should generate multiple indicators, though once again the specific numbers will vary greatly from one case to the next. Again, a rule of thumb is that there should be between 3 and 10 indicators per CSF, with the average being around five or six.

Document Measurements for these CSFs

Ask How do you measure these CSFs

Ask What should you be measuring for these CSFs

Document high level snapshot of measurements

Quite often the main actors of this step can include middle and operating managers with front-line experience. Senior management can be, by its very nature, too detached to indicate the specific performance indicator for concrete processes. Often the measurements defined at this point will be financial and profit oriented.

One of the real values in documenting these measurements is in the discussion surrounding their development and the information it provides for deeper analysis of the company's key knowledge assets. It is also necessary to take a structured approach when creating well-designed performance measures (Neely et al, 1997²). The details that need to be captured about each measurement are shown below in Table 1.1.

² Neely, Andy, Haw Richards, John Mills, ken Platts & Mike Bourne (1997):
"Designing performance measures: a structured approach", *International Journal of Operations & Production Management*, 17, (11), pp. 1131-1152.

	Measure 1	Measure 2	Measure 3
Corporate Strategy			
Critical Success Factor			
Title of Measurement			
Purpose			
Target			
Calculation/Approach			
Displayed as			
Frequency of Measure			
Frequency of Review			
IC Category			
Is it calculated already?			
Who Measures			
Source of Data			
Ownership of Measure			
What do they Do?			
Who acts on the data?			
What do they Do?			
Notes and Comments			

Table 1.1: Defining CSF Measurements

These measurements are used as a check and balance for the asset measurements developed in the following section. They can also be used to validate and improve current reporting systems should it be decided at this point to develop a very specific KM strategy relating to a particular CSF.

Once this information about the CSFs and measurements is defined it should then be graphically represented as shown in Figure 1.2 after the cross referencing to the asset categories is completed. This diagram, and its various parts also helps when communicating the results of the workshops.

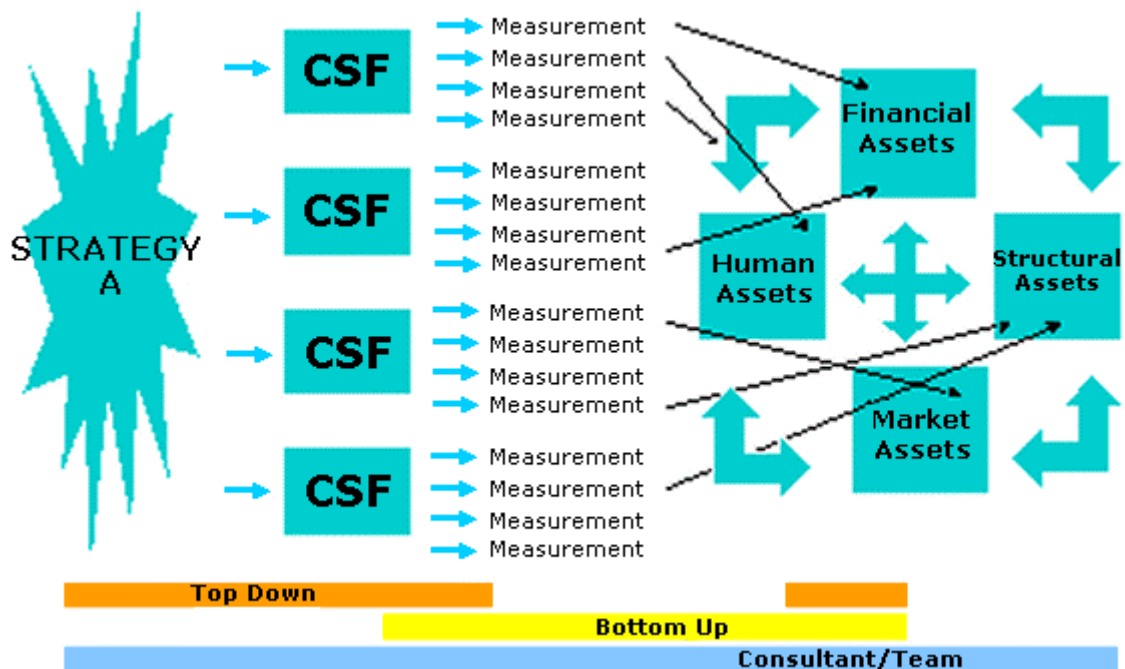


Figure 1.2 Graphically linking CSFs to measurements and asset categories

5.0 Identify your Key Knowledge Assets (Step 4)

As we mentioned above in Step 2 (section 3.0), there is a second activity to be independently performed once the CSFs are identified: that is the identification of the company's intangible or knowledge assets for the CSFs.

Identify your Key Knowledge Assets:

- Ask What are your intangible and knowledge assets?
- Ask What are the assets associated with your CSFs
- Ask Do your existing assets match those needed to support your CSFs?

This activity should be both linked to the CSFs and considered conceptually separate from the ones before. This involves assessing the present situation of the knowledge/intangible assets of the company. The purpose of this is clear: the desired position of the company (expressed by the strategy) should be tempered and matched by

the current situation of the company, as expressed by its stocks of assets and its utilisation of them (its flows).

The identification of all intangible/knowledge assets requires a broader participation than simply top management. The optimal solution would be to hold a series of workshops with representatives of each function or business unit, to identify the knowledge/intangible assets present in that unit and their use. If such a long and extensive series of workshops is not feasible, then the facilitator should rely on top management to identify key people inside the organisation who can contribute to the process, and then hold a limited number of workshops with them.

These workshops are also a good way to start diffusing the strategy statement and the critical success factors. The facilitator of the process can also encourage feedback, especially on the CSFs, and in case of notable disagreement initiate a dialectic process between the top management team and the disagreeing group, to iron out differences without steam-rolling over people lower in the hierarchy, who can have issues on their minds that senior management simply forgot to consider.

Once the intellectual asset audit is finished, then the assets identified should be matched with the CSFs. In case an evident mismatch is present, the facilitator should go back to top management, and encourage them either, to change their strategy to fit the knowledge/intangible asset in, or else, to stop investing in the intangible asset in question, which is draining resources without being of any use to the completion of strategy. The matching will also reveal which critical assets the company is lacking, and therefore generate a priority list for the next moves and help focus the development of the KM strategy for the organisation.

Matching intangible assets and CSF can initially take place in the last hour or so of each workshop to elicit the knowledge/intangible assets. In case of considerable mismatches, then a new session with top management, and possibly with the functions or units whose knowledge/intangible asset is involved, is recommended.

More often, as detailed in Part 3 and 4 of the KM Consulting method, we expect this step (Step 4) and the next step (Step 5) to be reduced considerably. This will result from ongoing prioritisation and narrowing of scope of the project to a specific business area or function rather than a corporate wide identification of knowledge assets and their measurements and the implementation of an IC measurement system.

6.0 Develop IC Knowledge Asset Measurements (Step 5)

At this point, the CSFs have been translated into concrete indicators that measure the company's performance, most often financial and profitability based (refer to section 4.0 – Step 3).

To develop the lower level knowledge/intangible asset measurements the main actors of this step should be middle and operating managers with front-line experience. To minimise the time involved, it is recommended that you combine the identification of the Knowledge Assets with the definition of their measurements in the one workshop.

Develop IC Asset Measurements

Ask How do you best measure these assets?
Agree and document bottom up developed details
of measurements

As mentioned earlier, Senior management is, by its very nature, too detached to indicate the specific performance indicator for concrete processes. Thus, senior management involvement in this stage is limited to the indication of the key people, which will then become the focus of the indicator elicitation.

Note also that the key people will often define the processes identified as CSFs in narrower and more precise terms. 'New product development' thus might become 'new product development speed'; 'inventory control' would be further specified as 'peak load management'; and so on. This further specification and limitation of the focus is of immense help to find the measurements, and thus should be an integral part of the elicitation workshops.

By this time, participants in the process should have understood its underlying logic and have developed a set of measurements similar to our examples in Section 3 of this document, specifically Tables 1.2 and 1.3, and our experience is that the workshops become easier and easier.

The details that need to be captured about each measurement are shown below in Table 1.2.

	Measure 1	Measure 2	Measure 3
Corporate Strategy			
Critical Success Factor			
IC/Knowledge Asset			
IC Category			
Title of Measurement			
Purpose			
Target			
Calculation/Approach			
Displayed as			
Frequency of Measure			
Frequency of Review			
Is it calculated already?			
Who Measures			
Source of Data			
Ownership of Measure			
What do they Do?			
Who acts on the data?			
What do they Do?			
Notes and Comments			

Table 1.2 Defining Knowledge Asset Measurements

Once the measurements have been defined, the output of the workshop can be documented as shown in Figure 1.3.

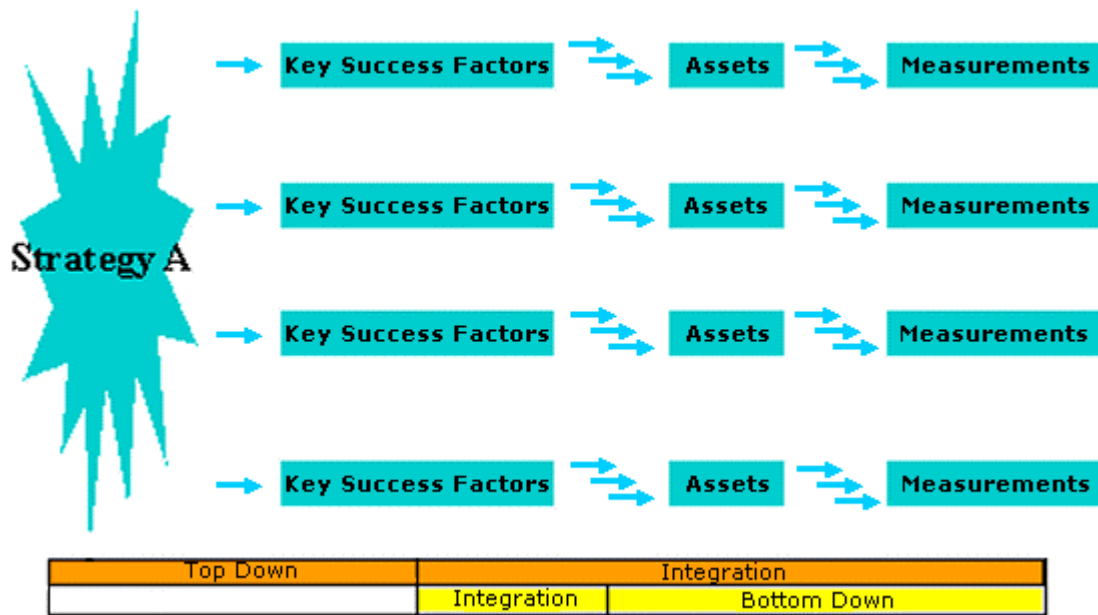


Figure 1.3 Linking Knowledge Assets and their measurements to Critical Success Factors

We have noticed a tendency to generate a tremendous amount of indicators during this process. On one side, this is encouraging, because it means that people are involved and understand the mechanics of the process and of their knowledge/intangible assets. All the same, the facilitator should try to restrict the final number of indicators, for two reasons. One is that too many indicators are bound to make the system more confusing, and to reduce its efficacy (and certainly its efficiency). Second, many indicators suggested will have only a vague and imprecise relation with the CSF or with the intangible asset that is being captured. A typical example of this latter category is an indicator that often appears in IC system: average age of employees. What does it mean if the average age is increased? Simply put, nothing, because what is important is how it is increased (through the hiring of a few outliers that are much older, or through normal ageing processes?), and how is this increase in age going to affect the company, i.e. how is it going to be used. Indicators of this kind should be eliminated from the IC systems, as they only serve to confuse anybody looking at it, without adding any relevant information.

Even if the number of indicators used is limited, there is another problem that will become apparent. Intangible assets do not have a bottom line, i.e. a summary number that can tell whether, all things considered, the situation of the period considered is good, bad or ugly. The flip side of the problem is that the indicators in the system are probably not all equally important, and should not be treated as such.

One approach (section 1.2.3.1), Roos *et al.* (1997)³ suggests an interesting solution: making all indicators dimensionless numbers (through a conversion in absolute scales, or through the use of ratios), and then weighing them and adding them up, arriving at a summary indicator that will serve as a proxy for the intangible asset bottom line. This approach also has the advantage that summary indicators can be built at different levels of aggregation, and with very different aggregations (by intellectual asset form, by CSF,...) Although interesting, at this point we only recommend this approach for companies who already have advanced IC measurement systems in place and have fine tuned their understanding of the inter-relationships between their knowledge/intangible assets.

As stated previously the development of indicators and measurements are company specific. For further details of some industry specific measurements, Barchan, 1994⁴, have conducted research in this area.

³ **Roos, Johan, Goran Roos, Nicola Carlo Dragonetti & Leif Edvinsson** (1997): *Intellectual Capital: Navigating in the New Business Landscape*; Macmillan, Houndmills, Basingtoke.

⁴ **Barchan, Margareta.** (1999): "Measuring Success in a Changing Environment", *Strategy & Leadership*, May/June 12-15.

7.0 Implement/Pilot the Measurement system (Step 6)

Implementing the measurements requires integrating any requirements generated through defining the measurements into the requirements and systems specifications being developed.

Implement/Pilot the Measurement Systems

Enhance and integrate reporting systems

If all the steps mentioned have been followed and the appropriate personnel included to get to the point of implementation then the following pre-conditions for a successful implementation of a major change or process should have already been fulfilled:

- KM Strategies and Vision defined and communicated.
- Strong Senior Management support evident.
- Shared commitment throughout organisation on need for change.
- All major stakeholders involved in definition of the measurements.
- Any resistance to implementation has been handled in workshops etc.

Following a mental check that the above pre-requisites have been covered a review of the details from the measurement forms will be fed into the requirements gathering mechanism for the project, and subsequent system analysis process with the appropriate people being included.

Once the measures are defined and the timetable, milestones and sign offs agreed for the pilot and implementation, a snapshot/benchmark of current state should be taken and flow through of these measurements to any new reward practices should be identified and communicated. This can be used as a cross check for the project manager to establish discussion on changes to the reward strategy (Dolmat-Connell, 1999⁵) to stimulate the new behaviours being sought. That said, be careful to communicate clearly your strategy, gain commitment and signoffs of those affected and be particularly careful about the robustness of a measure that directly affects someone's salary or bonus.

The main actors will be the owners of the measurements, the users of the measurements and the owners of any reporting systems in which they must be implemented plus often the Financial controllers and human resource representatives who oversee corporate reporting and performance and reward systems.

⁵ **Dolmat-Connell, Jack.** (1999): "Developing a Reward strategy that Delivers Shareholder and Employee Value.", *Compensation & Benefits Review*, March/April.

8.0 Establish continuous measurement review cycle (Step 7)

Once the system is in place, management should make sure that the effort spent in creating it does not go to waste. All too often, IC systems are created and then not used, bringing about a considerable waste of resources. Instead, leveraging the system can generate considerable gains.

Establish continuous review cycle

Introduce/upgrade review cycle for measurement system
Ask is this measure useful, indicative etc?
Ask is there a better way to do this?

Measuring is what we have talked about so far. The real challenge, once data has been collected and the measures have been created, is to put them into use. The Knowledge Asset Measurement System will immediately highlight the most important gaps the company needs to fill, as the areas where the existing knowledge/intangible assets and the CSFs diverge the most. This will hopefully generate managerial action, to fill these gaps.

These actions in turn should be appropriately monitored and tracked, to provide constant feedback. Thus, if the actions are in themselves successful but the relevant indicators do not improve, there has obviously been a misattribution of causality. If on the other hand the indicator shows the desired improvement, the company can decide whether they want to keep improving the indicator, or if they'd rather concentrate on other issues.

Therefore, as time passes, the IC systems is constantly reviewed, with new measure being added, old measures being dropped, to reflect refinement of the understanding of the organisational dynamics, but also re-orientations in strategy and critical success factors (see Figure 1.4)

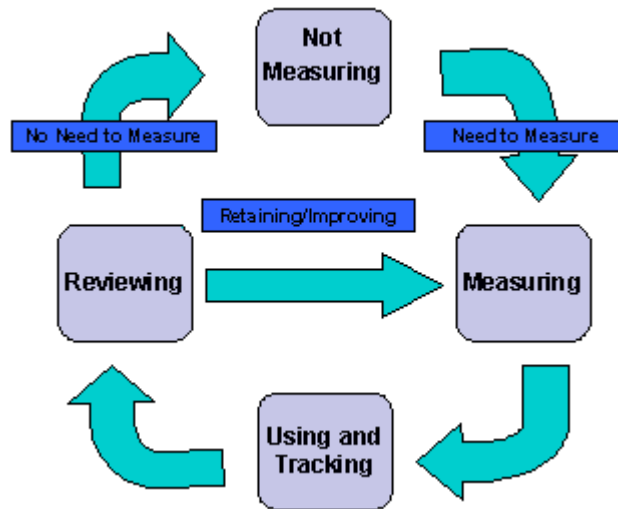


Figure 3.4 Cycle for managing measurement development and reporting

Note that this maintenance of the momentum requires the company to not just implement an IT system sustaining the IC system, but also to change the culture and climate, encouraging employees at all levels to add their contribution to the refinements.

Appendix A

Examples of IC Performance and Asset Measurement

The following table identifies flow and stock indicators: it should be read as flows of capital from the line header to the column header. For example, “hours spent codifying best practices” is an indicator of the flow from human to Structural resources.

To \ From			Market Assets	Financial Assets
Assets	Hours spent coaching Internal training expenses	Learnings captured Hours spent codifying processes R&D manhours Best knowledge codified and easily available	Manhours spent on a relationship/ Customer profit contribution	Consulting fee per manhour (net of administrative costs)
Structural Assets	Utilisation of best practices Attractiveness indices for recruiting Employee retention indices		Profitability of uninvited contacts	Licensing fees Revenues from data base sales Price premium over competition
Market Assets	Assessment by employee of personal development through external relations	Organisational learning from partners (JVs, suppliers, customer)		Brokering fees Profitability of referrals
Financial Assets	Investment in training	Advertising and marketing investments R&D investments Improvements in working environment	Investment in relationships	
Stocks	Average years in the industry Revenue/employee Employee turnover/ industry average % of managers with advanced degrees	Patent citation count Key process efficiency indicators (e.g. order filling, error rates, R&D efficiencies) Organisational culture indices	Market share Customer satisfaction Customer penetration % of net profits coming from new business or products Supplier penetration Supplier involvement Investor penetration	ROI ROA Cost of capital

Glossary

Knowledge The ideas or understandings, which an entity possesses that are used to take effective action to achieve the entity's goals.

Knowledge management The ways to create, retain, share, account for, and leverage knowledge - at all levels, from the personal level to the team level, the organisational level, the inter-organisational level, and the global level.

Knowledge Asset A resource that an organisation wants to cultivate and manage. Human assets are people and networks of people, structural asset could be an automated sales process and market asset could be a corporate brand.

Business case A document describing the business issues driving the project, the project objectives, the project scope, the approach and time frame for achieving results, the budget and the project team.

Critical Success Factors The most important activities and processes the organisation has to make right to reach the goals outlined in the strategy. Examples include: product development, inventory reduction, time to market, customer service and so on.

Vision The dream of a future state for the organisation.

Change Agent The person responsible for the process of change and incorporating the principles and tools of change management into an organised and systematic plan of implementation.