

How collaborative is your organisation?

A check-point methodology for improving collaboration

Consulus



Becoming a Collaborative Enterprise

Contents

Introduction	3
What are the benefits of collaboration?.....	3
What is good collaboration, and how is it cultivated?	3
Practices and Enablers	4
Engagement & sharing.....	4
Fostering innovation	5
Business agility	5
Knowledge capture and discovery.....	5
Learning & applying	5
Vision.....	6
Process & technology.....	6
Direction.....	6
Culture	7
A Capability Maturity Model for Collaboration	7
Principles of the maturity model	8
Using the Model.....	9
Results.....	9
Action Planning	11
Conclusion.....	12
About Tim Wood Consulting.....	12

Introduction

Many enterprises have invested in information technologies¹ to promote collaboration-based working and data creation. Furthermore, UK legislation is putting increasing pressure on public authorities to consult effectively with their stakeholders, and to deliver more effective public services through local partnerships. There is mounting evidence that collaboration and social networking, when purposive, boosts productivity¹. However, achieving a cultural shift in organisations requires more than information technology alone.

This White Paper:

- Describes a simple framework for analysing what “collaboration” actually entails, and why and how better collaboration should be cultivated within the enterprise
- Puts forward a methodology to help understand the current state of collaboration within any organisation and set realistic targets
- Sets out the steps needed to realise the benefits of collaborative working and to measure progress towards that goal.

What are the benefits of collaboration?

Without collaboration, organisations tend to remain trapped in silos, poorly knitted together, with little sharing of good practice and prone to duplicating work. This proves time-consuming and costly. Initiatives tend to peter out since results are not disseminated and mistakes and successes are not learned from. Change is resisted or made difficult by inflexible processes. Any organisation would therefore be likely to want the following benefits:

- Cost savings, by better re-use of knowledge, avoiding unnecessary repetition of the same tasks and recreation of the same information
- Shorter learning curves, due to ready access to information and other staff. Some de-skilling of staff may become possible, reducing operating costs
- Reduced technology costs, through collaborative thinking resulting in, for example, shared services and purchasing agreements
- Efficiency gains, through greater innovation and collaboration will see faster adoption rates and better feedback on what works well and what does not
- Faster response to change, as staff collaborate, helping rather than hindering
- Increased competitiveness, through better customer knowledge, customer interaction and innovation
- A more effective workforce, with better return on investment in learning.

What is good collaboration, and how is it cultivated?

Changing the practices of collaborative requires the right enablers. The following figure depicts the four enablers and five practices of collaboration.

¹ Typically built around Web2.0 concepts, using portals and enterprise search to gain access to business intelligence, social networking, knowledge creation and sharing, documents and data

Becoming a Collaborative Enterprise

	PRACTICES (COLUMNS)				
	<i>Collective Intelligence</i>			<i>Knowledge management</i>	
ENABLERS (ROWS)	Engagement & sharing	Fostering innovation	Business Agility	Knowledge capture and discovery	Learning & applying
Vision (vision, strategy, planning)					
Process & technology					
Direction (governing, managing, monitoring & improving)					
Culture (motivators, behaviours)					

Figure 1 the Collaboration Matrix

Practices and Enablers

Of the five practices (columns in figure 1), engagement and sharing, fostering innovation and business agility are aspects of what is known as Collective Intelligenceⁱⁱ (CI). If staff are equally committed to sharing and using what they create, and value the productivity of others as much as their own, then their organisation can be said to have a high level of engagement. Such an ideal organisation has the right conditions to promote innovative thinking. At the same time, the organisation has to be able to adapt and respond to change, often referred to as business agility.

Knowledge capture and discovery, learning and applying what has been learned are aspects of Knowledge Management (KM). KM involves using the ideas, knowledge and experience of employees, customers and suppliers to improve organisational and individual performance. The challenge is to determine what information within an organisation qualifies as 'valuable' for not all information is knowledge, and not all knowledge is valuable. The purpose of knowledge management is to find, catalogue and store the worthwhile knowledge, making it re-usable.

The four enablers (rows) of the Collaboration Matrix are as important as the practices. Good collaboration has to be driven from a strong vision, anchored by a realistic business case. Enablement must include establishing effective business processes, underpinned by best fit information technology. Direction must introduce the right governance and management, embedded in the organisation through monitoring and improving. The working culture is of great importance, including the value system of the organisation, styles and behaviours. Putting appropriate enablers in place is central to managing change.

These practices and enablers are usually present to a greater or lesser extent in most organisations, but are often implicit and not all of them are recognised as being of value. Unfortunately, strengths can easily be undermined by weaknesses. "Know thyself" is therefore a powerful truism.

Each of the columns and rows of the Collaboration Matrix are discussed in more detail below.

Engagement & sharing

Engagement requires creating a desire to participate and support. It is not uncommon for the most experienced and knowledgeable staff to also be the busiest, unable to find time to advise or teach.

Becoming a Collaborative Enterprise

It is also not uncommon for behaviours such as seeking help or advice to be seen as weaknesses, particularly in leaders. Engagement requires actively seeking input from others, facilitating and eliciting rather than telling, and providing time for reflecting before responding. Sharing can be made easier through process improvement and technology, but still requires staff to be motivated to do so. Motivating staff to engage and share requires leadership, process and technology, recognition and reward and for this reason, the working culture is an essential element.

Fostering innovation

It is possible to introduce formal business processes for managing innovation, such as funnels and stage gates, but such processes will not be productive unless there is already a collaborative culture in place. Staff will not be motivated to share or engage and sharing is the key to innovation, since it brings different perspectives and skills together. Social networking is also essential for innovation, because the desire to think creatively, going the extra mile for the organisation is easier to do if it is also an enjoyable process that is recognised as being of value, and does not have to be done outside working hours.

Business agility

An agile organisation is able to bring the right resources and processes to bear on each problem, or to maximise each opportunity by flexing skills and resources and capitalising on innovation. Resistance or inability to change responsively (typically because of inflexible processes or being dominated by fixed structures) will result in the organisation being unable to adapt or anticipate external changes. The result is declining performance followed by large and often painful change programmes rather than frequent, small adjustments.

Knowledge capture and discovery

Most organisations suffer from having too much information, because the useful has not been distilled out. In addition, it is not unusual for much of it to be out of date and difficult to find. As a result, new silos of information spring up within projects, teams and individual filing systems, or recycled through cut and paste. Capturing useful information requires a collaborative culture, since staff have to appreciate the potential value of the information to the organisation. Distilling the key points takes effort, as does tagging content or data to make it easy to find, and so the return on investment has to make it worthwhile. Clearly it is important to make sure that valuable ideas, experience and knowledge are retained and made available to all, and more importantly, made easy to find in order to prevent reinvention.

Learning & applying

Learning will happen informally through engagement and sharing, and be boosted by enabling social networking. Informal learning processes can be introduced by ensuring that staff at all levels 'seek help' by consulting and encouraging reflexion, by introducing best practice at every meeting in terms of 'what went well', and 'even better if', by ensuring that information is easy to find, updated and distilled. Applying what has been learned also requires consideration, to ensure that it is happening, capturing feedback to assess effectiveness. Such methods are well known but rarely applied.

Formal learning can also be introduced to promote collaboration, by partnering parts of the organisation with advanced collaborative practices with others that are at the start. Learning and applying knowledge is as important as any other of the four practices, since there is little point in

Becoming a Collaborative Enterprise

engaging and sharing, creating new ideas, capturing and distilling them if the organisation does not seek to benefit from them.

Vision

The transition of an organisation to becoming a collaborative enterprise requires top-level commitment, and a shared vision that is based on sound business principles, but should address the way people work as well as the end-product. Envisioning will address all of the enablers and practices of the Collaboration Matrix but must be based on an honest appraisal of what stage the organisation is currently at, as well as the desired end result. To be credible, the vision has to be grounded on what is achievable, and supported by a sound strategy and business case.

Process & technology

Good process and technology provide workers with fast access to any information, knowledge and people they might need to do their work, share ideas, innovate, work remotely, create collectively or consume individually. Information technology alone can sometimes act as a catalyst where visible proof of concept creates the necessary ownership and revision of the business strategy, but essential and visible business processes are needed to ensure that staff work effectively and sustainably.

Web2.0 is a conceptual framework that puts the 'knowledge worker' at the centre, rather than at the periphery of information technology, taking the familiar home computing environment into the workplace, combining such things as social networking, fast search, calendars, favourites, notice boards, and notification. These technologies overlay legacy applications such as document management systems, file servers or content management systems and one of the most powerful functions is enterprise search. Knowledge is often locked in silos, including databases, content management systems, e-mail archives, and so on. Users need to know in advance where this information is located before they can find it, but Web2.0 enterprise search can retrieve information from structured and unstructured sources, hiding the underlying systems from the user.

There have been concerns that introducing web technology such as social networking might be detrimental to business, which might be true if the networking activity were not directed at recognised outcomes or goals and in the context of business, these are for exchanging knowledge, engaging with stakeholders and facilitating consensus, informing, learning and supporting. The evidence is that *purposive* collaboration does indeed boost productivity.^{iiiiv} Business take-up of Web 2.0 technologies has been reported to have doubled in the last year².

Direction

In order for the organisation to develop practices of CI and KM, leaders must demonstrate the desired behaviours and lead the way in the use of enabling technologies, even if this moves them out of their comfort zone. One of the characteristics of becoming a collaborative enterprise, is that communications should shift from being primarily hierarchic and downward ('command and control' behaviours) to more lateral and facilitated. Managers have to be prepared for this change and supportive of it. Since transition to becoming a collaborative enterprise requires a degree of managed change, the programme will need to involve leadership and management fully in making the journey a success.

² The AIIM research report is entitled 'Collaboration and Enterprise 2.0: work meets play or the future of business?' Part of the AIIM Industry Watch series, the report is free to download from the AIIM website.

Becoming a Collaborative Enterprise

It is important that there are metrics for measuring improvement in CI and KM, as well as reviews and feedback. This can be achieved through choosing the right enabling technology, providing workers and managers with useful indicators of individual and team performance. Improvement is also a collaborative process, and a good indicator that an enterprise is becoming collaborative is the extent to which improvement becomes a common focus and embedded rather than imposed.

Culture

The development of collective intelligence and knowledge management is ultimately dependent upon behaviours of working and these must be managed carefully if they are to change. Each decision will be influenced by the behavioural norms of the organisation: if asking for help is seen as a weakness, then staff may try to solve problems that they are unprepared for. Being supportive and wanting to share knowledge requires these behaviours to be recognised and rewarded. Adopting a facilitative approach to leading, as opposed to instructing will set the styles and behaviours for others.

Having looked briefly at enablers and practices, the question is how to realise the vision. This requires an understanding of where the enterprise is now, in terms of its enablers and practices, where it wants to be, and the stages it has to go through to move from 'as is', to 'to be'.

A Capability Maturity Model for Collaboration

This term refers to how 'grown up' an organisation is in a specific capability. Studies by organisations such as the Carnegie Institute^y have observed that each level of maturity tends to have the same characteristics, regardless of the business context. A model for collaboration based on this concept can therefore provide a road map for an organisation to move from how it is now, to how it wants to be. The enablers and practices of the collaboration matrix are each organised into five levels of maturity, each level representing an increased ability to control, manage and measure. This collaboration maturity model can be applied to an organisation at any level (enterprise, division, department, team, or partnership).

Level 1 - *Ad Hoc*. No common practices for collaboration exist. Any pockets of collaborative maturity that the organisation has are based on the experience and initiatives of individuals and are not melded into enterprise-wide practices or behaviours. Enablers are focused on other priorities.

Level 2 - *Repeatable*. Certain departments are aware of the importance of collaboration and have developed common practices used with other stakeholders. At the enterprise level, level 2 organisations still react to issues as they arise and the focus is on *command and control* enablers which will have grown organically without any unified approach, and practices that vary from team to team. At this level the organisation may have an awareness of how it is performing, but no clear vision of what it should be like.

Level 3 - *Defined*. Importantly, the organisation now has a vision of how it wants to be, in terms of collaborative practices. The enablers and practices for business collaboration are being defined and consideration is given to how they can be measured. Business processes and information technology are being worked upon and a business case has been defined and accepted.

Level 4 - *Managed*. Processes and technology have been implemented. The organisation views knowledge and collaboration as enterprise assets. The business is heavily engaged in collaborative

Becoming a Collaborative Enterprise

practices and takes responsibility for the quality of knowledge that they manage. *However, these are founded upon well defined business processes and procedures.* A level 4 organisation will implement mature and best-in-class practices but the organisation is focused on compliance rather than sustained improvement.

Level 5 *Optimising*. A level 5 organisation has best-in-class collaborative practices that are utilised across all enterprise projects. Teams flex and workers can belong to a variety of groups (e.g. project, department, knowledge, skill). The distinguishing characteristic of a level 5 organisation is the focus on continuous improvement. To achieve this, organisations must be innovative, flexible and agile. They can adapt and remain ahead of the game. Level 5 represents the 'intelligent enterprise'.

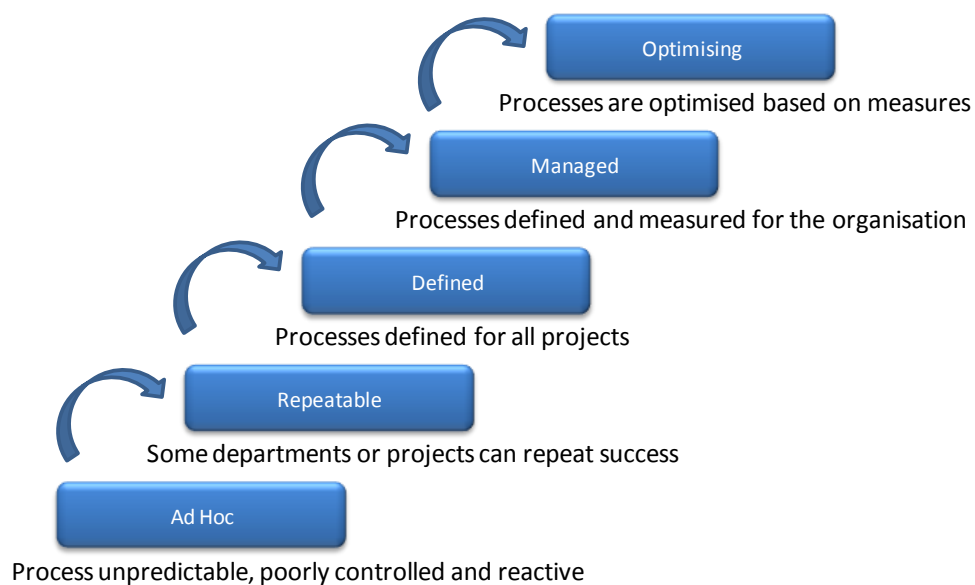


Figure 2 Capability Maturity Model

Principles of the maturity model

- Raising maturity will not work without buy-in at all levels. The organisation and all stakeholders within it must accept that it is at a lower level than it would like to be and commit to raising the game in order to achieve change. An important question to be asked is how did the organisation end up where it is, in the first place? The root cause has to be addressed.
- It is necessary to fulfil the criteria for each level before attempting to progress to the next one. Otherwise, weak foundations are likely to result in an unsustainable investment. It is not possible to be effective if a high level of collaboration is unsupported by sensible procedures and practices. Without these, scrumming occurs, with uncoordinated activities.
- It is possible for maturity to regress, as often happens as a by-product of reorganisations or mergers, where existing processes become disrupted or are forced to change. This can leave a collaborative culture but without the underlying processes to support it. An organisation in this state is immature without necessarily being aware of it.

Becoming a Collaborative Enterprise

Using the Model

The model uses a scorecard to evaluate the capability maturity across the 20 cells of the Collaboration Matrix. Five statements are provided for each cell, representing each level of maturity and the user has to choose one by entering an 'x' into the relevant cell. The scorecard can be applied to different roles and teams within the organisation to obtain a collective view, and therefore developing the consultation framework is an essential starting point to applying the model.

The following figure shows part of the rating scale.

ENABLERS	Engagement & sharing		Fostering innovation		Storing and discovering knowledge		Learning & applying knowledge	
	description	score	description	score	description	score	description	score
Vision	Social networking and better engagement is not part of the vision for the organisation		Innovation is ad hoc and there is not an explicit vision for it.		Capturing and distilling knowledge is not seen of strategic importance.		Whilst strategy considers training needs and budgets there is no vision addressing how to embed learning practices in the business culture	
	1. Some teams have formulated visions of better networking and engagement. 2. The organisation has an understanding of how it currently performs in terms of networking and interaction and would like to do better.		1. A few leaders express the opinion that innovation is important to the organisation. 2. The organisation would like to be more innovative but is not sure how.		1. Some leaders are aware of success stories about the value of capturing and distilling knowledge. 2. The organisation knows that it could do better at capturing and accessing information.	x	1. A collective vision for learning and applying knowledge across the organisation has not yet been developed. 2. The organisation has a strong desire to improve how it manages learning and applying.	
	1. The expected benefits of networking and engagement have been defined as part of the vision statement. 2. A business case has been developed.	x	1. Increasing innovation is part of the vision statement for the organisation. 2. Improved innovation is part of the business case.	x	Capturing and distilling knowledge is part of the vision statement for the organisation's future. It has been documented in the business case.		1. A vision for a learning organisation now exists and has been documented in the vision statement. 2. The business case has been defined.	x
	1. The business case has been accepted. 2. The vision now includes how to achieve continuous improvement of social networking and engagement. All staff are involved in furthering a common vision of an organisation that engages and shares.		Innovation is now an established part of the business culture and ways of embedding and improving it are being envisioned		1. Knowledge is being captured and distilled across the organisation. 2. The vision is for continuous improvement		1. Formal and informal processes for learning are now being used. 2. The vision is now on continuous improvement	
Tools	1. No tools support collaboration across the enterprise other than email, sms or instant messaging 2. No explicit processes have been defined for collaboration.		1. Innovative ideas may happen on an ad hoc basis, but there is no technology in place to facilitate it 2. Processes for managing innovation are not defined or followed		1. Collaboration largely depends upon email and exchanging documents. 2. A lot of effort is spent putting data in, but getting information out means asking someone		1. Learning and the application of knowledge has not been defined as a consistent business process. 2. Learning and the application of knowledge is an ad hoc process	
	1. Some teams have tried out technology for helping collaboration but it is not available across the organisation. 2. Some parts of the business have defined processes for supporting engagement and sharing but others have not.		1. Some teams are using IT to help them manage innovation and work creatively 2. Some processes have been defined and are in place, but not across the whole organisation		1. Some structured tools are used e.g. finance, document management, HR or the intranet but must be searched in different ways. 2. There are no defined processes for storing and discovering knowledge across the organisation.		1. Some teams may have started using information technology to help them improve learning and the application of knowledge. 2. Some parts of the organisation may have introduced processes for managing learning, but others have no established means of doing it.	

Figure 3 The Scorecard

The scorecard provides basic information on the level of maturity of each cell of the Collaboration Matrix – for example, the management of innovation and the tools and processes for enabling engagement and sharing.

Results

The model provides the following information:

- The level of maturity of each enabler and each practice
- The level of maturity of each enabler with respect to each practice
- An overall score for the organisation
- The distribution of maturity scores for each enabler and each practice (the number of occurrences of each level in rows and columns)
- A visual comparison of the current maturity of each practice and enabler, and the target

Becoming a Collaborative Enterprise

This information forms the baseline when commencing a change programme, and is also used to track progress. Understanding the maturity of each practice and each enabler helps to determine what corrective actions are needed, and where effort should be focussed.

The basic scores are illustrated below. The colour coding is a simple 5-colour scale from red (maturity = 1) to green (maturity = 5). The scores show the maturity of each enabler against each practice, but also the overall maturity of each enabler and practice. The overall score in this example is 2.45 (bottom right cell), in other words, the organisation is developing different approaches to collaboration across teams and has some successes and failures, but has not yet commenced a managed approach to improvement overall.

Each cell below shows the maturity level. 1 = low, 5 = high

ENABLERS	PRACTICES					Maturity of enablers
	Engagement & sharing	Fostering innovation	Storing and discovering knowledge	Learning & applying knowledge	Business agility	
Vision	3	3	2	3	3	2.75
Process & Technology	4	4	3	3	2	3.50
Direction	2	1	2	2	3	1.75
Culture	1	2	2	1	3	1.50
Maturity of practices	2.50	2.50	2.25	2.25	2.75	2.45

In the following figure, the distribution of maturity is depicted for each practice and each enabler, by counting the number of occurrences of each level of maturity. It shows in simple terms how consistent the maturity is across the measure and where attention is therefore needed within a practice or enabler.

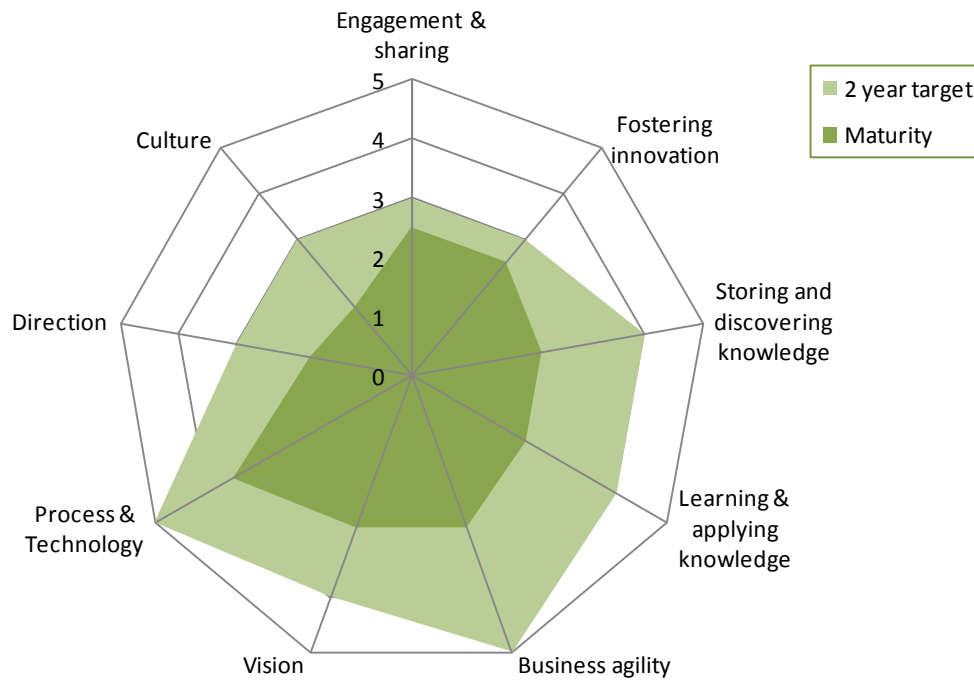
Each column below shows the total count of each maturity level as a %

PRACTICE	1	2	3	4	5
Engagement & sharing	20	20	20	20	0
Fostering innovation	20	20	20	20	0
Storing and discovering knowledge	0	60	20	0	0
Learning & applying knowledge	20	20	40	0	0
Business agility	0	20	60	0	0

ENABLER	1	2	3	4	5
Vision	0	20	60	0	0
Process & Technology	0	0	40	40	0
Direction	20	60	0	0	0
Culture	40	40	0	0	0

Becoming a Collaborative Enterprise

Below, a simple radar diagram is used to compare targets against scores. Target scores are simply the level of maturity an organisation wishes to achieve in the future, typically at measurement points within a change programme. The radar diagram visualises the current and future distributions of maturity across enablers and practices.



In this example, investment has been made in information technology and a change programme is in place, but culture, engagement and sharing, and direction all lag behind. The practices for fostering innovation also need development. Theoretically, all practices should largely be at the same level, but in this example, targets that have been set are neglecting key areas.

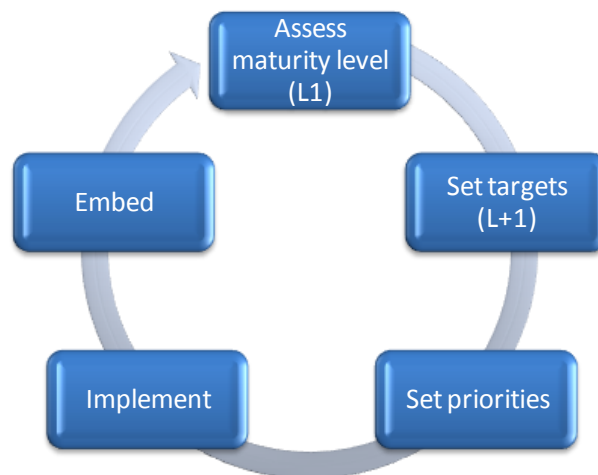
Action Planning

Since each organisation is in many ways unique, formulating an action plan and identifying the most cost-effective ways of addressing the maturity of collaborative practices and enablers will need to be undertaken on a case by case basis. However, a generic model for change that makes use of the model is shown below.

An initial assessment is undertaken using the model, to determine the 'as is' situation, which requires eliciting responses not only from managers but from a representative cross-section of the organisation. That is part of the initiation activity. Next, targets are set – bearing in mind one of the golden rules of the maturity model process, these should realistically be the next level up rather than unrealistic leaps. Priorities are then set: should technical enablement come first? Is there an adequate vision for collaboration? Then follows the difficult task of implementing the changes, but unlike a typical change programme, the use of the maturity model makes it possible to make manageable changes, and helps identify where changes will bring the biggest payback. Following implementation, time has to be allowed for benefits realisation, after which another assessment can be made.

Becoming a Collaborative Enterprise

In this way, change is iterative, rather than requiring a revolution. The generic rules of maturity models, that are well proven in many situations, tell us that change is better made incrementally so that the organisation progresses logically through each step and the collaborative capability maturity model helps to pinpoint which aspects of the organisation should be attended to first so that progression is measured and balanced, with each practice supporting the others.



Conclusion

Capability maturity has become an accepted yardstick to determine organisational efficiency and applying it to business collaboration provides the basis for assessing the 'as is' state for a change programme, as well as setting targets for how it is 'to be'. The maturity model pinpoints areas for improvement and where mismatches exist. It provides a rational basis for prioritising, but does not specify what specific actions should be undertaken to achieve these changes. These have to be defined as part of the transition plan and will vary from one organisation to another.

About Consulus

We are an independent consultancy, able to bring together leading experts in the management of information. Founder and director Dr Tim Wood is a creative thinker and innovator with substantial experience of leading projects and providing solutions across a wide range of different sectors. See www.consulus.co.uk for further information.

ⁱ Umit S Bititci, Veronica Martinez, Pavel Albores and Joniarto Parung (2004) Creating and Managing Value in Collaborative Networks, International Journal of Physical Distribution and Logistics Management. Vol.34(3-4), 2004, p.251-268

ⁱⁱ Managing Collective Intelligence: Toward a New Corporate Governance, Olivier Zara, www.axiopole.com

ⁱⁱⁱ Groupware - The Changing Environment By David Coleman, ISBN# 0-13-727728-8, Copyright 1997, 720 pp. Prentice Hall

^{iv} Building a Culture of Collaboration in Cisco Services (2007) Collaboration Case Study.

www.cisco.com/en/US/prod/collateral/ps7060/ps8329/ps8330/.../prod_case_study_FY08_Collaboration_and_Green_Study_120308.pdf

^v Standard CMMI Appraisal Method for Process Improvement (SCAMPISM) A, Version 1.2: Method Definition Document". CMU/SEI-2006-HB-002. Software Engineering Institute. 2006.

<http://www.sei.cmu.edu/publications/documents/06.reports/06hb002.html>.