

How **green** is your organisation?

A check-point methodology for resource sustainability in the enterprise

Consulus



Contents

Synopsis	3
Introduction	3
Enablers and Practices.....	3
Regulatory compliance	4
Measuring and Communicating.....	4
Managing Resource Risk	5
Corporate and Social Responsibility	5
Vision and objectives	6
The resource management process.....	6
Getting and sharing the right information	6
Resource-aware culture	6
The Capability Maturity Model.....	7
Principles of the maturity model.....	8
Using the Model.....	8
Results	9
Action Planning	10
Conclusion	11
About Tim Wood Consulting.....	11

How green is your organisation?

Synopsis

This White Paper describes a methodology for assessing the overall maturity of any organisation in terms of sustainable resource management and energy efficiency and sets out the steps needed to help transform the organisation to becoming green throughout, as well as on the surface.

It should be read by

- CSR leaders and others wanting a 'green transformation roadmap' from where they are now, to where they could be
- Organisations seeking to capitalise on the opportunities presented by resource sustainability and energy efficiency
- Investors wanting a realistic way of assessing just how green an organisation actually is and what it could become.

Introduction

Today, when production costs are a major concern, externalities of resource sustainability such as energy efficiency, CO2 reduction, water management, shifting to renewables, forest and habitat preservation or biodiversity could be seen as a heavy burden. Realising these beyond the costs of regulatory compliance could be seen as bad business. However, other organisations are addressing the sustainable management of global resources, including CO2, energy and forest management as part of their corporate social responsibility and image. How can an organisation assess where it is, in terms of resource sustainability, and envision where it wants to be, when faced with what has been described as 'chronic strategic conditions'¹.

The answer is like Creighton Abrams' 'eating an elephant' metaphor. Take one bite at a time. The decision still remains, which bits of the metaphorical elephant to eat first.

"After consulting with our teams, O2 found that by simply changing the heating and cooling patterns in their office and call centres, they could improve their energy efficiency by 20%. It may have been a small change, but saving 47,000 tonnes of CO2 meant hundreds of thousands of pounds in revenue over a period of three years."

Ronan Dunne, CEO of O2 UK

Collaborative behaviour and communications are as important as investment in tools.

Enablers and Practices

Enablers are the driving force behind the changes needed to become a sustainable organisation. **Practices** are the day to day activities that realise change. The matrix below shows that it is the *interaction* of these activities that counts. It is argued that there are four enablers to becoming a fully green organisation. These are vision and objectives, the resource management process, getting and sharing the right information, and becoming a resource aware culture. A balance must be struck: having the vision and objectives is of little use unless processes are there to embed them. Providing tools to share information requires a willing audience to use them.

¹ <http://www.water.org.uk/home/news/comment/uw>

How green is your organisation?

ENABLERS	PRACTICES			
	Regulatory compliance	Measuring and communicating	Managing resource risk	Corporate and social responsibility
Vision and objectives	Triggers and drivers		Triggers and drivers	Triggers and drivers
Resource management process				
Getting and sharing the right information				
Resource aware culture				

Practices (regulatory compliance, measuring and communicating, managing resource risk and CSR) also have to be embedded in the organisation and are interdependent. Practices must be *enabled* but they are the means to realise the vision and objectives. Whilst regulatory compliance can be the trigger for change, CSR itself can be a driver, as could resource risk, such as energy security.

Regulatory compliance

Regulatory compliance is a vast and complex subject, from managing office lighting and heating through to management of entire industrial processes. The UK CRC guidance² required an energy consumption abatement strategy, measures, monitoring, assessment and management, all focused on direct energy consumption. Going beyond the CRC, reducing indirect emissions from the whole product lifecycle, supply chain and employees (e.g. transport) is a substantial undertaking although international standards are being developed³.

Supply chain management is a particular challenge. Whilst 90% of Carbon Disclosure Project⁴ members have put in place carbon reduction plans, 62% of their suppliers still do not have any targets in place at all, and realistically speaking, it is likely that their emissions will keep growing at the same pace as the economy⁵. Offshore operations that can avoid punitive regulatory compliance are effectively generating externalities on a global scale in order to satisfy their domestic shareholders.

After 2012, all companies importing and selling timber in the EU will be required to demonstrate that they have exercised adequate due diligence to ensure their timber has been felled legally. This closes a loophole that currently enables companies to sell illegally forested timber. Clearly, companies will be able to continue with this practice until the new legislation, but waiting upon compliance could be seen as 'do minimum'. If an organisation has the vision to go beyond the do minimum, it has the opportunity to enhance its image and CSR.

Measuring and Communicating

This is perhaps one of the most important practices to address, because only with effective measurement can performance be assessed, and realistic targets set. A recent reportⁱ

² http://www.decc.gov.uk/en/content/cms/what_we_do/lc_uk/crc/user_guidance/user_guidance.aspx

³ The GHG Protocol Scope 3 Standard

⁴ CDSB members report climate change-related information in their Annual Reports and contribute analysis by the investment research community. CDSB was convened at the 2007 annual meeting of the World Economic Forum

⁵ Carbon Disclosure Project Supply Chain Report 2010

How green is your organisation?

revealed that amongst US manufacturers, the top area where companies are seeking improvements is in building management (53 per cent), whilst only 35% have automated reporting systems, the rest relying on compiling spreadsheets. Few if any ERP⁶ systems are designed to handle energy or sustainable resource data alongside financial and human resources and costs of extending systems are generally a barrier for many organisations. However, some hosted solutions using web technologies can automatically extract data from a variety of sources and perform the necessary conversions and calculations in order to communicate resource performance to the workforce, gaining buy-in and cooperation.

Thus an immature organisation will focus on measuring energy and resource consumption using a simple spreadsheet, whereas a mature organisation will measure and communicate resource sustainability, using dedicated technology as part of a wider communication and collaboration strategy aimed at a resource-aware culture.

Managing Resource Risk

Continuing rapid depletion of the world's natural, renewable resources poses a substantial risk to today's organisations. The risk of climate change is relatively well understood. The Transition Movement is a response to peak oil, where energy security is likely to result in potentially crippling spikes in energy costs. As previously externalised costs of biodiversity, forest loss and other global costs realised through legislation, production costs will inevitably rise. However, addressing these risks requires organisations and shareholders to face up to the fact that environmental impacts are not only of global concern affecting current and future generations, but also impact on future profits. A socially and environmentally responsible organisation will also want to know what risk it poses to the global environment, to biodiversity and habitat conservation. Resource risk assessment is, like regulatory compliance, a very large subject, but can also be broken down into more bite-sized portions in order to assess the current position, and the desired future state.

Corporate and Social Responsibility

'We cannot afford to continue to be afraid of profit motivated business driving the solutions to climate change.' Professor C.K. Prahalad, United Nations climate change negotiations, Poland 2008

CSR can be thought of as a self-regulating activity whereby organisations identify, monitor and review the benefits they are delivering. The practice of benefits realisation is essential to identifying the expected gains of all stakeholders, when they will be achieved, and what obstacles will need to be overcome. The organisation needs to know whether it is realising wider benefits, not only by delivering corporate social responsibility but also achieving cost reduction and if possible, increased productivity. In essence, investing in carbon and other resources management can be seen as part of the business planⁱⁱ. The return on investment from a 'do minimum' approach of regulatory compliance is very much less advantageous than using it as a stepping stone to improved CSR, image and profitability. An immature organisation in this respect will focus on discharging its statutory obligations whilst minimising cost. A mature organisation will seek to enhance its position through profitability or performance, image and payback, capitalising on carbon and other resource management as an opportunity. A mature organisation will see sustainable resource management as part of its ongoing corporate social responsibility to shareholders and the global environment.

⁶ Enterprise Resource Planning, integrated systems used for running a business

How green is your organisation?

Vision and objectives

The transition of an organisation to becoming a resource-sustainable enterprise, whether in terms of energy efficiency, CO₂ and other pollution reduction, renewables or biodiversity, requires top-level commitment, and a shared vision that is based on sound business principles. The vision will address all of the enablers and practices of the capability maturity matrix (as presented) 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. A mature organisation will have a vision and values that are understood and bought into by all stakeholders, and evidenced by their actions. The vision should be to be green throughout.

The resource management process

In order for an organisation to develop the right *practices*, managers must demonstrate the desired behaviours and lead the way, even if this takes them out of their comfort zone. Moving towards being resource-sustainable requires direct board level responsibility, and it is likely that larger organisations will appoint a carbon manager or a sustainable resource manager, but also have departmental responsibilities and board level accountability.

It is important that there are metrics for measuring improvement, 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 in terms of carbon management alongside other metrics.

Getting and sharing the right information

Good processes and IT provide workers with fast access to the 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.

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. 'Knowledge is power' benefits key individuals but can be a barrier to change. 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.

Getting and sharing information about the resource performance of the organisation, its partners, supply chains and staff mean that decisions are fully informed and not solely reliant on financial data.

Resource-aware culture

This refers to what motivates individuals and their groups or teams, both within the organisation, and in an ideal world, in partner organisations. Culture is to some extent a

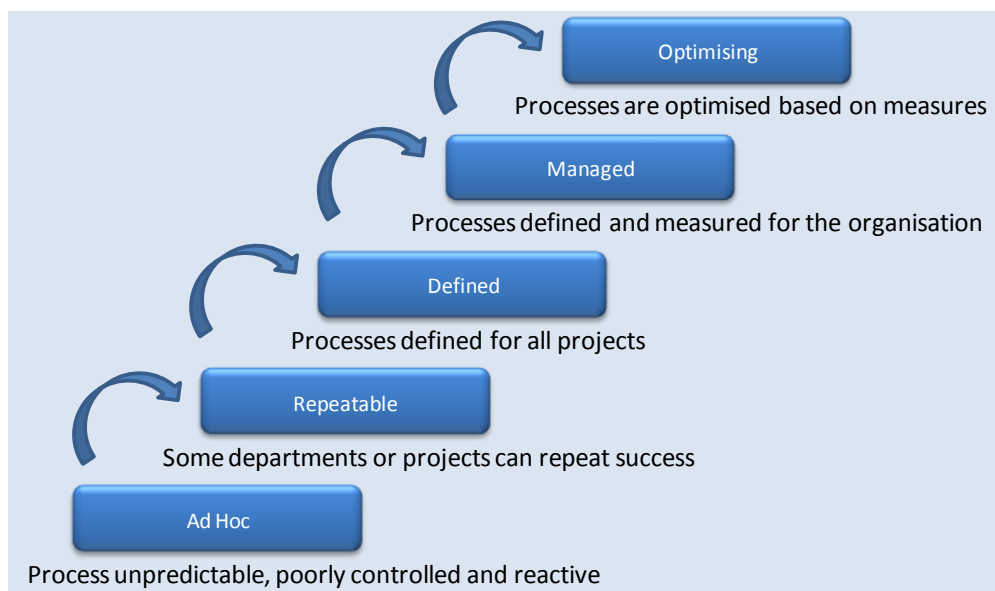
How green is your organisation?

reflection of the stated vision and values of the organisation, but these are not always the same and more commonly reflect the way performance is measured and the influence of peer group behaviour, role models and work ethics. Culture can act as a powerful enabler or blocker of change, and changing culture is a major challenge, particularly where productivity has to be balanced against sustainability. Culture demonstrates the integrity of an organisation and the level of trust that it engenders. Board members driving gas guzzlers betray any environmental principles the organisation might espouse. A mature organisation in this respect will have developed a culture that recognises and rewards resource efficient behaviours, recognises the value of innovation and readily shares knowledge and takes account of its supply chain and outsourcing partners.

The Capability Maturity Model

Having looked briefly at enablers and practices and the capability maturity matrix, 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'.

This term 'maturity model' refers to how grown up an organisation is in a specific capability. Studies by organisations such as the Carnegie Instituteⁱⁱⁱ have observed that each level of maturity tends to have the same characteristics, regardless of the business context. A model for carbon management maturity 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. Each of the enablers and practices of the matrix are organised into five levels of maturity. The model can be applied to an organisation at any level (enterprise, division, department, team, or partnership). The levels are summarised below.



1. Ad Hoc. No common practices for sustainable resource management exist. Any pockets of maturity that the organisation has are based on the experience and initiatives of individuals, or result from IT investment but are not supported by enterprise-wide practices or behaviours. These are focused on other priorities.

How green is your organisation?

2. Repeatable. Certain departments are aware of the importance of sustainable resource management and have developed common practices used with other stakeholders. Level 2 organisations have practices that have grown organically without any unified approach, and will 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.

3. Defined. At the end of this stage, the organisation now has a well defined vision of how it wants to be. The enablers and practices for sustainable resource management are defined. Business processes and information technology are being worked upon and a business case has been accepted.

4. Managed. Processes and enablers are in place. A level 4 organisation will implement mature and best-in-class sustainable resource management practices but the organisation is focused more on compliance rather than sustained improvement or the delivery of net benefits.

5. Optimising. The organisation has best-in-class sustainable resource management practices that are utilised across all projects. The distinguishing characteristic of a level 5 organisation is the focus on continuous improvement not only within the organisation but across its supply chains and working practices. To achieve this level, organisations must be innovative, flexible and agile. They can adapt and remain ahead of the game. Level 5 represents the 'intelligent enterprise'.

Principles of the maturity model

Raising maturity will not work without buy-in at all level. 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.

It is necessary to fulfil all the criteria for each level before attempting to progress to the next one. Weak foundations are likely to result in an unsustainable investment. It is not possible to be effective, for example, if investment is imbalanced across the capability maturity matrix of enablers and blockers.

It is very difficult to skip levels. Many IT projects fail because the organisation is too immature in terms of existing process to adapt.

It is possible for maturity to regress, as often happens as a by-product of change, where existing practices and enablers become disrupted. This can leave a willing culture but without the underlying processes to support it, or information technology without the motivation to apply it, or the inertia of an outdated vision.

Using the Model

The model uses a scorecard to evaluate the capability maturity across the sixteen cells of the Capability Maturity Matrix. The user has to choose a maturity level for each cell by entering an 'x'. The following figure shows part of the rating scale.

How green is your organisation?

ENABLERS	PRACTICES			
	Regulatory compliance	Measuring and communicating	Managing resource risk	Corporate and social responsibility
<ul style="list-style-type: none"> Sustainable resource management isn't currently part of the vision for the organisation. The organisation isn't fully aware of all regulations current and emerging regulations that might affect it. The organisation doesn't know its resource impact and leadership gives it a low priority. Some leaders express the view that the organisation should be doing more to comply with regulations for sustainable resource management, others don't agree. The stated intent to comply with emerging regulations are not part of the vision. Some teams are actively taking steps to become more compliant but there isn't any overall structure. 	<ul style="list-style-type: none"> Measuring and reporting of resource impacts are ad hoc. There isn't an explicit vision for how sustainable resource management might be measured or communicated. 	<ul style="list-style-type: none"> Any risk assessment of environmental impacts or resource supply is ad hoc. 	<ul style="list-style-type: none"> There is no vision or plan addressing how to realise the benefits of sustainable resource management. Sustainable resource management is seen as a cost to the business, as opposed to a benefit. 	Score: 2.19
<ul style="list-style-type: none"> Sustainable resource management is now part of the vision and future objectives. An organisation-wide plan for sustainable resource management is being put in place that considers the role of each department and its individual practices and targets. 	<ul style="list-style-type: none"> Standards, methods and tools for measuring and communicating performance in terms of sustainable resource management, are within the vision statement for the organisation. Improved measurement of sustainability and communication are part of the business case for sustainable resource management. 	<ul style="list-style-type: none"> Formal risk assessment and management associated with resource depletion and shortage are part of the vision statement for the organisation's future. 	<ul style="list-style-type: none"> Some leaders are looking at the benefits of sustainable resource management to the organisation whilst others view it as a cost. Whilst sustainable resource management is seen as a desirable goal it is not viewed as a business objective. 	Score: 2.19
<ul style="list-style-type: none"> The vision and objectives now include: <ul style="list-style-type: none"> Upstream and downstream regulatory compliance The resource management and 	<ul style="list-style-type: none"> Ways of measuring and communicating performance in resource management have been cascaded across the organisation(s). Measurement and communication may not be comprehensive e.g. both upstream 	<ul style="list-style-type: none"> Formal risk assessment and management associated with resource depletion and shortage are now being practised. The vision is how to further improve on 	<ul style="list-style-type: none"> Sustainable resource management is seen as a central aspect of CSR. A plan for how to realise the benefits from resource management is being cascaded through the organisation and is generally agreed with. 	Score: 2.19

The scorecard provides basic information on the level of maturity of each cell of the Maturity Matrix for the organisation concerned but clearly much of the value is in forcing consideration of what has and hasn't been done, and why.

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, division or department.
- The distribution of maturity scores for each enabler and each practice (the number of occurrences of each level in rows and columns)
- A rational basis for setting targets
- A visual comparison of the current maturity of each practice and enabler, and the target.

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

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 2.19 (bottom right cell), in other words, the organisation is developing different approaches to sustainable resource management across teams and has some successes and failures, but has not yet commenced a managed approach to improvement overall.

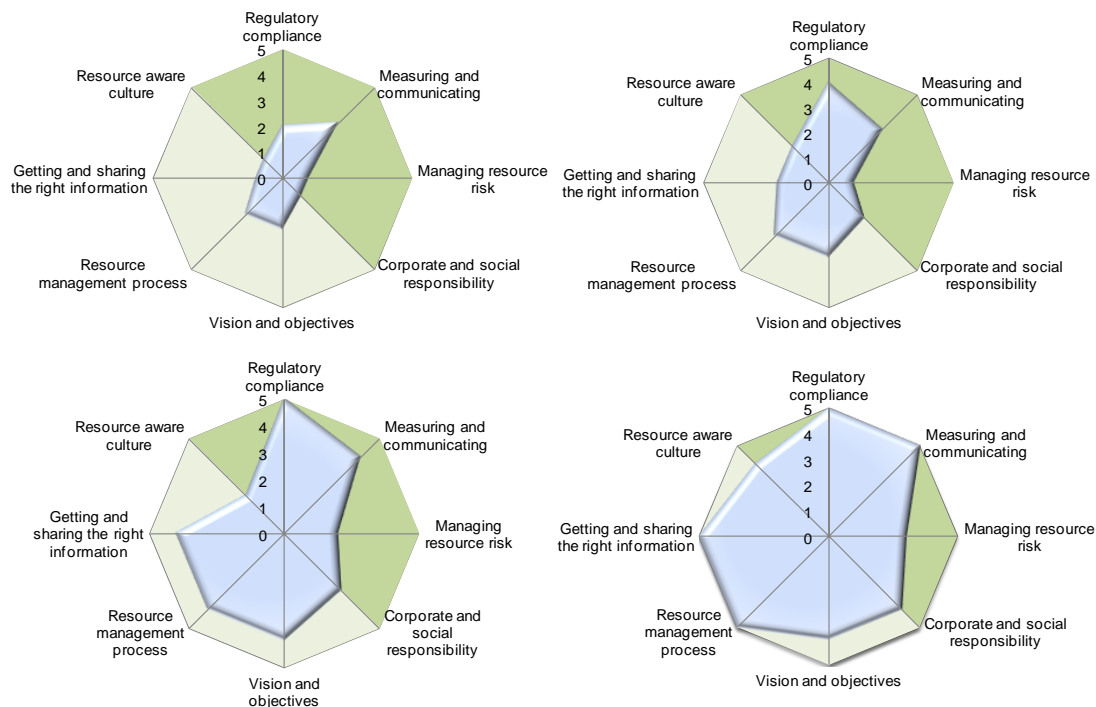
How green is your organisation?

ENABLERS	PRACTICES				Enabler Index
	Regulatory compliance	Measuring and communicating	Managing resource risk	Corporate and social responsibility	
Vision and objectives	3	3	2	1	2.67
Resource management process	2	1	2	2	1.67
Getting and sharing the right information	4	4	3	2	3.67
Resource aware culture	1	2	2	1	1.67
Practice index	2.50	2.50	2.25	1.50	2.19

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.

Below, simple radar diagrams are used to represent a series of different scenarios, in terms of the relative maturity of enablers and practices.

The four diagrams represent a fictitious organisation at different stages of development, but it is not too difficult to imagine what shape real organisations would have using this system.



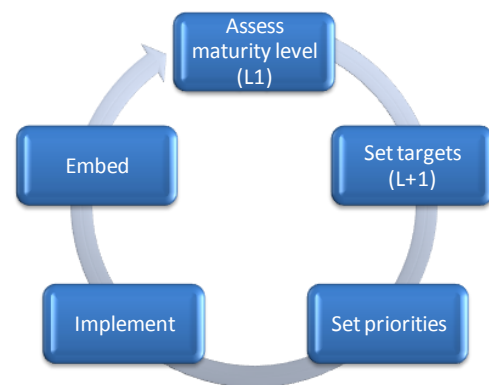
Action Planning

Since each organisation is in many ways unique, formulating an action plan and identifying the most cost-effective ways of addressing the maturity of its 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 simple approach is shown below.

How green is your organisation?

An initial assessment is undertaken using the model, to determine the 'as is' situation, which may in some cases require responses not only from the CSR manager 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 leadership vision? 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 what will bring the biggest payback, not simply in terms of reduced carbon but in terms of overall benefits. Following implementation, time has to be allowed for benefits realisation, after which another assessment can be made.

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 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 sustainable resource management 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

An independent consultancy, able to bring together leading experts in the field of information management consulting. Founder and director Dr Tim Wood is a creative thinker and innovator with substantial experience of leading projects and providing solutions. See www.consulus.co.uk for further information.

ⁱ Sustainability Reporting and Greenhouse Gas Management - Sensing Market Trends and Evolution in U.S. Manufacturing, AMR Research, Published April 27, 2010

ⁱⁱ Making Advances in Carbon Management Best practice from the Carbon Information Leaders. Joint CDP and IBM Study, June 2008

ⁱⁱⁱ 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>.