

## **Taking Responsibility:**

### ***The integration of Sustainability and Project Management***

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#### **Abstract**

*Sustainability is one of the most important challenges of our time. How can we develop prosperity, without compromising the life of future generations? Companies are integrating ideas of sustainability in their marketing, corporate communications, annual reports and in their actions. Projects as instrument of change are crucial to sustainable development. Association for Project Management (past-) chairman Tom Taylor recognizes that “Project and Program Managers are significantly placed to make contributions to Sustainable Management practices”. And at the 2008 IPMA World Congress, Vice-President Mary McKinlay stated “the further development of the project management profession requires project managers to take responsibility for sustainability”. It is for that reason inevitable that ‘sustainability’ will find its way to project management methodologies and practices in the very near future. But how is this responsibility put to practice? This paper explores the concept of sustainability and its application to project management. Based on the studies on the application of these principles in project management we will build the argument that the project management profession should take responsibility for not just for the process of delivering a project, but also for the content and the results of the project itself. Including the sustainability aspects of that result.*

#### **1. Introduction**

In the last 10 to 15 years, the concept of sustainability has grown in recognition and importance. The pressure on companies to broaden its reporting and accountability from economic performance for shareholders, to sustainability performance for all stakeholders has increased (Visser, 2002). The recent world crises may even imply, that a strategy focused solely on shareholder value, is not longer viable (Kennedy, 2000). Following the success of

Al Gore's 'inconvenient truth', awareness seems to be growing that a change of mindset is needed, both in consumer behavior as in corporate policies. How can we develop prosperity without compromising the life of future generations? Proactively or reactively, companies are looking for ways to integrate ideas of sustainability in their marketing, corporate communications, annual reports and in their actions (Hedstrom et al., 1998; Holliday, 2001). Sustainability, in this context, being defined as "Adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining and enhancing the human and natural resources that will be needed in the future." (Deloitte & Touche, 1992).

The concept of sustainability has more recently also been linked to project management (Gareis et al., 2009; Silvius et al., 2009). Association for Project Management (past-) chairman Tom Taylor recognizes that "the planet earth is in a perilous position with a range of fundamental sustainability threats" and "Project and Programme Managers are significantly placed to make contributions to Sustainable Management practices" (Association for Project Management, 2006). Also in academic research, the relationship between project management and sustainability is explored (e.g. by Gareis et al., 2009; Labuschagne and Brent, 2006; Silvius et al., 2009) as one of the (future) developments in project management.

But how does this attention for sustainability find its way to the shop floor? How is sustainability taken into account in project management processes, methodologies, competencies, etc.? If organizations 'put their money where their mouth is' on sustainability, it is inevitable that sustainability criteria and indicators will find its way to project management methodologies and practices in the very near future (Silvius et al., 2009).

This paper explores the concept of sustainability and its application to project management. It aims to identify the responsibilities surrounding the integration of sustainability in project management.

## **2. The Concepts of Sustainability**

The balance between economic growth and social wellbeing has been around as a political and managerial challenge for over 150 years (Dyllick and Hockerts, 2002). Also the concern for the wise use of natural resources and our planet emerged already many decades ago, with Carson's book "Silent Spring" (Carson, 1962) as a launching hallmark. In 1972 the 'Club of Rome', an independent think tank, published its book "The Limits to Growth". In the book, the authors concluded that if the world's population and economy would continue to grow at

their current speeds, our planet's natural resources would approach depletion. The Limits to Growth fuelled a public debate, leading to installation of the UN 'World Commission on Development and Environment', named the Brundtland Commission after its chair. In their report "Our Common Future", the Brundtland commission defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (1987). By stating that "In its broadest sense, sustainable development strategy aims at promoting harmony among human beings and between humanity and nature", the report implies that sustainability requires also a social and an environmental perspective, next to the economical perspective, on development and performance.

The visions that none of the development goals of economic growth, social wellbeing and a wise use of natural resources, can be reached without considering and effecting the other two, got widely accepted (Keating, 1993). In his book "Cannibals with Forks: the Triple Bottom Line of 21st Century Business", identifies John Elkington, this as the 'triple bottom line' or 'Triple-P (People, Planet, Profit)' concept: Sustainability is about the balance or harmony between economic sustainability, social sustainability and environmental sustainability (Elkington, 1997).

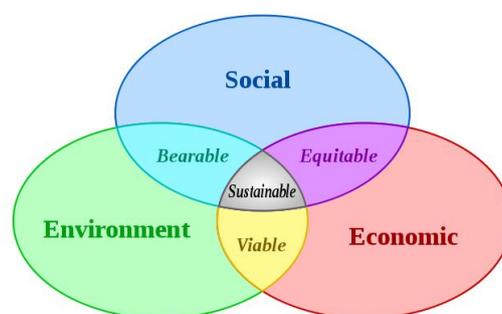


Figure 1. The Triple-P concept of sustainability

Based on the concepts and standards described above, a number of key elements, or principles, of sustainability can be derived. For example Dyllick and Hockerts identify three "key elements of corporate sustainability": Integrating the economic, ecological and social aspects into the firm's strategy, Integrating short-term and long-term aspects and Consuming the income and not the capital. Gareis et al. define sustainability with the following principles (Gareis et al. 2011): economic, social and ecologic orientation; short-, mid- and long-term

orientation; local, regional and global orientation; value orientation. The recent ISO 26000 guideline on social responsibility mentions accountability, transparency, ethical behavior, respect for stakeholders' interests, respect for rule of law, respect for international norms of behaviour and respect for human rights as 'principles' of sustainability. After considering these sets of elements or principles we conclude six 'principles of sustainability' that will be our guiding principles in the integration of the concepts of sustainability in projects and project management.

These six principles of sustainability are:

*Sustainability is about balancing or harmonizing social, environmental and economical interests*

In order to contribute to sustainable development, a company should satisfy all 'three pillars' of sustainability: Social, Environmental and Economic (illustrated in Figure 1). The dimensions are interrelated, i.e. they influence each other in various ways. One way of considering sustainability is to 'balance' social, economic and environmental aspects by trading off the negative effects of doing business for a somewhat lower profit. For example compensating CO2 emission by planting new trees or compensating unhealthy work pressure by higher salaries. A more proactive approach to sustainability looks at how organizations create a 'harmony' of social, environmental and economic aspects in their activities. This approach is not about compensating bad effects, but about creating good effects (Silvius and Schipper, 2010).

*Sustainability is about both short term and long term orientation*

A sustainable company should consider long-term consequences of their actions, and not only focus on short-term gains. Especially firms listed on the stock market have overemphasized the importance of short-term gains, trying to increase performance from quarterly report to quarterly report, and thereby losing long term vision. This element focuses the attention to the full lifespan of the matter at hand. An important notion in this aspect is that the economical perspective, because of discount rates, tends to value short term effects more than long term effects, whereas social impacts or environmental degradation may not occur before the long-term.

*Sustainability is about local and global orientation*

The increasing globalization of economies effect the geographical area that organizations influence. Whether intentionally or not, many organizations are influenced by international stakeholders whether these are competitors, suppliers or (potential) customers. The behaviour and actions of organizations therefore have an effect on economical, social and environmental aspects, both locally and globally. “In order to efficiently address these nested and interlinked processes sustainable development has to be a coordinated effort playing out across several levels, ranging from the global to the regional and the local” (Gareis et al., 2011).

*Sustainability is about consuming income, not capital*

Sustainability implies that “the natural capital remains intact. This means that the source and sink functions of the environment should not be degraded. Therefore, the extraction of renewable resources should not exceed the rate at which they are renewed, and the absorptive capacity of the environment to assimilate waste, should not be exceeded.” (Gilbert et al., 1996). This principle is common knowledge in business from the economic perspective. Finance managers know that a company which does not use its income to pay for its costs, but instead uses its capital, will soon be insolvent. From a social or environmental perspective, however, the impact may not be visible in the short-term, causing degradation of resources in the long run. In order to be sustainable, companies have to manage not only their economic capital, but also their social and environmental capital.

*Sustainability is about transparency and accountability*

The principle of transparency implies that an organization is open about its policies, decisions and actions, including the environmental and social effects of those actions and policies. This implies that organizations provide timely, clear and relevant information to their stakeholders so that these stakeholders can evaluate the organization’s actions and can address potential issues with these actions. The principle of accountability is logically connected to this. This principle implies that an organization is responsible for its policies, decisions and actions and the effect of these on environment and society. The principle also implies that an organization accepts this responsibility and is willing to be held accountable for these policies, decisions and actions.

*Sustainability is also about personal values and ethics*

As discussed earlier, a key element of sustainability is change. Change towards more sustainable (business) practices. As argued by Robinson (2004) and Martens (2006),

sustainable development is inevitably a normative concept, reflecting values and ethical considerations of the society. Part of change needed for more a sustainable development, will therefore also be the implicit or explicit set of values that we as professionals, business leaders or consumers have and that influence or lead our behavior. GRI Deputy Director Nelmara Arbex puts it simple and clear: “In order to change the way we DO things, we need to change the way we VIEW things”.

These sustainability principles provide guidance for the analysis of the impact of the concepts of sustainability in projects and project management in the following paragraph.

### **3. Sustainability in Project and Project Management**

The concepts of sustainability have only recently been linked to projects and project management (Gareis et al., 2009; Silvius et al., 2009). We consider projects as temporary organizations (Lundin and Söderholm, 1995; Turner and Müller, 2003) that deliver (any kind of) change to organizations, products, services, business processes, policies or assets. These project-organized changes, or simply projects, are characterized by:

- A temporary nature or temporary organization;
- Most often across organizational structures and boundaries;
- A defined deliverable or result, logically or preferably linked to the organization's strategy or goals;
- Specified resources and budget.

In this definition, projects are, as temporary organizations, related to a non-temporary ‘permanent’ organization, and realize changes that benefit the strategy or goals of this organization. The permanent organization utilizes resources and assets in its operational business processes to deliver benefits or value to its customers and ultimately deliver business performance (e.g. profit, market share, return in capital, etc.) to the organization and its stakeholders. Its activities are based on goals that are developed or set in a strategic management process.

The strategic management of the organization, however, not just includes setting goals. It also includes evaluating the business performance of the organization against these goals. If the performance is satisfactory, the operations may continue. But if the performance is unsatisfactory, because of lack of performance or because of changing goals, there may be

reason to change something in the organization. In that case, a temporary organization, in the form of a project, is commonly used to create this change. The change may concern the resources, assets or business processes of the permanent organization, but also the products/services rendered or the internal policies and procedures. The selection of the ‘right’ changes for the organization is usually part of a process called ‘portfolio management’. Figure 2 illustrates this relationship between projects as temporary organizations and the permanent organization.

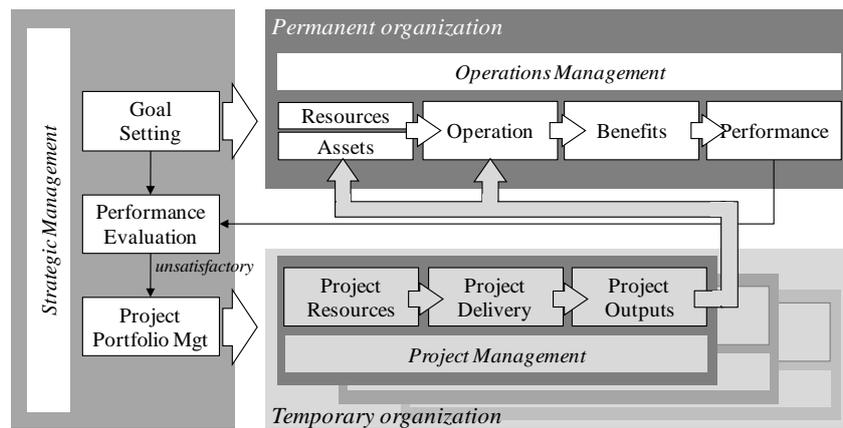


Figure 2. Project as temporary organizations that deliver changes to the permanent organization.

Elaborating on the view of projects as instruments of change, it is evident that a (more) sustainable society requires projects to realize change. In fact, this connection between sustainability and projects was already established by the World Commission on Environment and Development (1987). However, Eid concludes two decades later that the standards for project management “fail to seriously address the sustainability agenda” (Eid, 2009). Given the temporary nature of projects this may not be surprising. Projects and sustainable development are probably not ‘natural friends’. Table 1 illustrates some of the ‘natural’ differences in the characteristics of the two concepts.

<b>Sustainable Development</b>		<b>Project Management</b>
Long term + short term oriented	↔	Short term oriented
In the interest of this generation and future generations	↔	In the interest of Sponsor / Stakeholders
Life-cycle oriented	↔	Deliverable/result oriented
People, Planet, Profit	↔	Scope, Time, Budget
Increasing complexity	↔	Reduced complexity

Table 1. The contrast between the concepts of Sustainable Development and Projects.

The relationship between sustainability and project management is still an emerging field of study (Gareis et al., 2009). Some first studies and ideas were published in recent years. And although the studies differ in approach and depth, a few conclusions can be drawn.

*Conclusion 1: Sustainability is relevant to projects and project management.*

As stated in the introduction of this chapter, APM's (past-)chairman Tom Taylor was one of the first to suggest the project management community to familiarize themselves with the issues of sustainability, recognizing that more should be done to contribute to a more sustainable society (Association for Project Management, 2006). This appeal was the output of a small working party in APM, that recognized that project managers were not well equipped to make a contribution to sustainable development and decided to investigate this issue.

On the 2008 European conference of the Project Management Institute (PMI), Jennifer Russell elaborated on what Corporate Social Responsibility means for project managers (Russell, 2008). She pointed out that a project manager, being in the frontline of new or changed activities within an organization, is perfectly positioned to influence the organization's operations towards greater sustainability. Russell also argued that this position is not without responsibility, both for the organization as for the project manager. She concludes that "Corporate social responsibility is too big an issue to leave to someone else to address."

*Conclusion 2: Integrating sustainability stretches the system boundaries of project management.*

In some of the first publications on sustainability and project management, Carin Labuschagne and Alan Brent of the University of Pretoria link the principles of sustainable

development to project life cycle management in the manufacturing industry (Labuschagne and Brent, 2006). They suggest that the future-orientation of sustainability implies that the full life cycle of a project, from its conception to its disposal, should be considered. Elaborating on this life cycle view, they argue that when considering sustainability in project management, not just the total life cycle of the project (e.g. initiation-development-execution-testing-launch) should be taken into account, but also of the ‘result’ the project produces, being a change in assets, systems, behavior, etc. This result, in their words: the ‘asset’, should also be considered over its full life cycle, being something like design-develop-manufacture-operate-decommission-disposal. And taking the life cycle view even further, also the life cycle of the product or service that the asset produces should be considered. Figure 4 visualizes how these three life cycles, ‘project life cycle’, ‘asset life cycle’ and ‘product life cycle’, interact and relate to each other. Including sustainability considerations in projects therefore suggests that all three life cycles are considered.

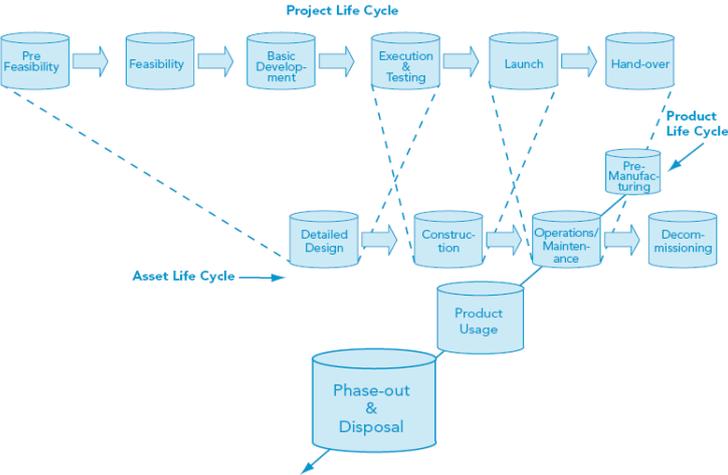


Figure 3. Interrelating life-cycles (Silvius et al., 2009, based on Labuschagne and Brent, 2006).

Because Labuschagne and Brent include the result of the project, the asset, in their framework, it is sensitive to the context of the project. The general insight gained from their work, however, may be that integrating sustainability in projects should not be limited to just the project management processes. It suggests that also the ‘supply chain’ of the project is to be considered, including the life cycle of whatever result the project realizes and also the life cycle of the resources used in realizing the result.

### *Conclusion 3: Project management standards fail to address sustainability*

This conclusion was most clearly drawn by Mohamed Eid in the 2009 book “Sustainable Development & Project Management” (Eid, 2009). Eid studied the integration of sustainable development in construction project management. Some conclusions from his study:

- Project management is an efficient vehicle to introduce a more profound change, not only to the construction industry’s practice, but more importantly to the industry’s culture.
- Project management processes and knowledge fall short of committing to a sustainable approach.
- Mapping sustainable development onto project management processes and knowledge areas, identifies opportunities for introducing sustainability guidelines in to all project management processes.

It should be mentioned, that ‘help may be on its way’ with regards to the integration of the concepts of sustainability into project management standards. For example, Taylor elaborated on his earlier appeal to the project management profession (Association for Project Management, 2006), by publishing ‘A Sustainability Checklist for Managers of Projects’ (Taylor, 2008). This checklist contains a list of suggested consideration for project managers, with which they can incorporate sustainability aspects in their projects. And although the checklist lacks a systematic approach to the concepts of sustainability. It is a meaningful attempt to translate the ‘abstract’ concepts of sustainability to the daily work of the project manager.

### *Conclusion 4: The integration of sustainability may change the project management profession.*

The 2010 IPMA Expert Seminar ‘Survival and Sustainability as challenges for projects’, featured several papers and discussions on the integration of sustainability in projects and project management (Knoepfel, 2010). The conclusion of this seminar was that the influence of the project manager on the sustainability aspects of his or hers project at hand is substantial, regardless whether he/she actually bears responsibility for these aspects. This conclusion may actually change the nature of the project management profession. From a managerial role aimed at realizing delegated tasks, it may need to develop into a more advisory role with autonomous professional responsibilities and aimed at the right organizational changes.

The studies summarized in this paragraph illustrate the current state of knowledge on sustainability in projects and project management. The current state of research on sustainability in projects and project management is mostly interpretive, giving meaning to how the concepts of sustainability could be interpreted in the context of projects, rather than prescriptive, prescribing how sustainability should be integrated into projects. However, the studies also include a vision. A vision on the development of project management as a profession. IPMA Vice-President Mary McKinlay stated in the opening keynote speech of the 22nd World Congress of the International Project Management Association (IPMA) in 2008, that “the further development of the project management profession requires project managers to take responsibility for sustainability” (McKinlay, 2008). In this vision, project managers need to take a broad view of their role and to evolve from ‘doing things right’ to ‘doing the right things right’. This implies taking responsibility not just for the process of delivering a project, but also for the content and the results of the project itself. Including the sustainability aspects of that result.

#### **4. Conclusion**

Projects can make a contribution to the sustainable development of organizations. It should therefore be expected that the concepts of sustainability are reflected in projects and project management. And although some aspects of sustainability are found in the various standards of project management, it has to be concluded that the integration of sustainability in projects and project management is not fully recognized yet.

The emerging studies on the integration of the concepts of sustainability in projects and project management point out that although the actual responsibility for sustainability may differ by project, the project manager always will have a decisive or influencing role. The project management profession should therefore also take responsibility for a more sustainable future.

Elaborating on this professional responsibility, it should, however, also be noted that still a lot of work has to be done on the implications of Sustainable Project Management and that there is a growing need of expertise, criteria and concepts to practically implement the concept in the management of projects.

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