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Paper 4. The Sustainable Improvement and Innovation Model

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Abstract. The Beef CRC's "Sustainable Beef Profit Partnerships" (BPP) project is built around the Sustainable Improvement and Innovation (SI&I) Model – a model for the design, leadership and management of projects to achieve rapid and sustained improvement and innovation, and accelerated adoption. The model is implemented through a systemic approach to project design, and the development of a number of integrated strategies to guide the targeting of priority outcomes and work plans. The emphasis is on a sustainable project methodology such that the intended outcomes can continue to be delivered long after the Beef CRC funding is terminated. Further, there is an emphasis on rapid implementation of the process in the short-term such that outcomes can be generated quickly and evidence can be provided about the efficiency and effectiveness of the project.

Keywords: Sustainable improvement and innovation; model; system; strategies.

Introduction

Background

In Paper 1 the genesis of the Beef CRC's "Sustainable Beef Profit Partnerships" (BPP) project was described. The project is designed to work in partnerships with beef businesses, value chains and the broader Australian beef industry to accelerate improvements, innovations and adoption and assist in meeting the overall Beef CRC target outcome of \$179 million extra profit per year by 2012.

In recognition of the value of designing, measuring and managing projects using balanced, multi-dimensional, system frameworks (Kaplan and Norton, 1992; Ghalayini and Noble, 1996; Bourne et al. 2000; Bryde 2005); the BPP project was designed and is managed using a system model for sustainable improvement and innovation, and an associated project scorecard (Griffith et al. 2007). The project is based on implementing the Sustainable Improvement and Innovation (SI&I) Model. The concept of sustainable improvement and innovation was first developed by Clark (2002), and the SI&I model was first documented by Clark et al. (2005). Clark (2008) provides the most comprehensive description of the SI&I model – just the basic ideas are provided here. The underpinning science behind the model and the key process used, Continuous Improvement and Innovation (CI&I), are described in Papers 2 and 3 respectively.

Several aspects of the SI&I model that are considered to be particularly noteworthy are: an emphasis on a systemic approach to project design, leadership and management;

- an emphasis on ensuring target outcomes are achieved within the project timeframe and can continue to be achieved long after the Beef CRC funding is terminated;
- the development of functional strategies to ensure effective and efficient implementation of the SI&I model, guide work plans and achieve project target outcomes;
- an emphasis on rapid implementation, and regular and frequent measurement and improvement of project performance (including re-design of the project system and strategies as needed), so that outcomes can be generated quickly and evidence can be provided about the efficiency and effectiveness of the project; and
- an emphasis on working 'in', 'on' and 'for' the system i.e. ensuring performance of the elements in the system, ensuring the system is performing as a whole, and managing the interface between the project system and the broader meta-system.

The Sustainable Improvement and Innovation System

As outlined in Paper 2, there are six key elements contributing to the improvement and innovation system that underpins the BPP project methodology. Numerous authors list and describe these types of elements (Doty, Glick and Huber 1993; Harris 1994; Shortell, Bennett and Byck 1998; Plsek 1999; Cao, Clarke and Lehaney 2000; Benner and Tushman 2001; Maurer, Mitchell and Barbeite 2002; Kerzner 2004, 2005).

The elements of the sustainable improvement and innovation system used in the BPP project are as follows:

1. Focus, targets, outcomes and key measures;
2. Partnerships, networks, social infrastructure and capital;
3. Capacity building – knowledge, skills and resources;
4. Technology and information – integration, valuation and diffusion;
5. Momentum, culture development and institutionalisation; and
6. Continuous improvement and innovation process and tools.

Table 4.1 lists these six elements and the criteria used to measure and manage the model.

A system map that depicts the relationships between these elements and the target outcomes of the project is shown in Figure 4.1. The width of the arrows indicates the strength of the relationships between the elements, where thick lines represent strong causal relationships and thinner lines represent weaker causal relationships. The relative emphasis and effort given to each of the elements over the life of a project is shown in Figure 4.2.

Project Strategies

In order to ensure effective and efficient implementation of this systemic approach across beef business and value chain partnerships, the BPP project has designed a number of formal strategies (Figure 4.3).

The BPP project has designed six key integrated strategies to ensure BPP project target outcomes are achieved as a system, that the system itself is continuously improving and innovating, and that the project remains focused on partnerships (Figure 4.3):

- Partnership and network support – To ensure effective partnerships, networks and social architecture, and to achieve momentum and institutionalisation of the CI&I process during and after the project;
- Capacity, capability and competency - To equip all BPP partners, teams and networkers with the knowledge, skills, resources and support to achieve and sustain beef business and industry improvement and innovation for impact on profit, productivity and growth year by year, and to fulfil their functions and roles in the BPP project;
- Communication, information and marketing - To ensure all partners have a shared vision of the project (system, focus, methods etc), and that the

partnership network and industry are adequately informed of the project achievements, and share and promote improvements and innovations;

- Measuring, monitoring and evaluation - To ensure project partners are able to measure achievements and obtain feedback and support to contribute to achieving further improvements and innovations;
- Research and development - To improve, discover and create more effective and efficient mechanisms (theory, models, methods, tools) to achieve accelerated improvement and innovation;
- Project system improvement and innovation – To ensure regular and frequent measurement, improvement and innovation of the design, leadership and performance of the project system and its component elements, and to manage the interaction between the project system and the broader meta-system.

The success of the project in meeting the requirements of the SI&I model can be monitored and evaluated using some simple 'spider' diagrams. Examples of these are shown in Paper 5.

Conclusion

The Beef CRC's "Sustainable Beef Profit Partnerships" (BPP) project is built around a Sustainable Improvement and Innovation (SI&I) Model – a model for the design, leadership, measurement and management of projects to achieve rapid and sustained improvement and innovation, and accelerated adoption (Clark 2008). The model is implemented through a systemic approach to project design, and the development of a number of integrated strategies to guide targeting priority outcomes and work plans. The emphasis is on a sustainable project methodology such that the intended outcomes can continue to be achieved long after the Beef CRC funding is terminated. Further, there is an emphasis on rapid implementation, and regular and frequent measurement and improvement of project performance (including re-design of the project system and strategies as needed), so that outcomes can be generated quickly and evidence about the efficiency and effectiveness of the project can be provided. Measures and measurement of the functioning of key system / model elements are critical to success and motivation; the measures and their measurement need continual improvement.

Appendix

Table 4.1. The six elements of the Sustainable Improvement and Innovation (SI&I) system model and the criteria used to measure and manage the model

SI&I Elements	SI&I Criteria
1. Focus	Need, vision, mission, principles, values, SMARTT targets, KPIs
2. Partnerships	Individuals, groups, partners, organisations, roles, networks, networking
3. Capacity	Knowledge, skills, resources, training, competencies, expertise
4. Technology	Technologies, information, expertise, databases, benchmarks, innovation frameworks
5. Momentum	Support, motivation, culture, institutionalisation, policy, promotion, marketing, management, leadership
6. CI&I	Tools, practices, processes, systems, measurements, ideas, improvements, innovations, learnings

Figure 4.1. The BPP project system map

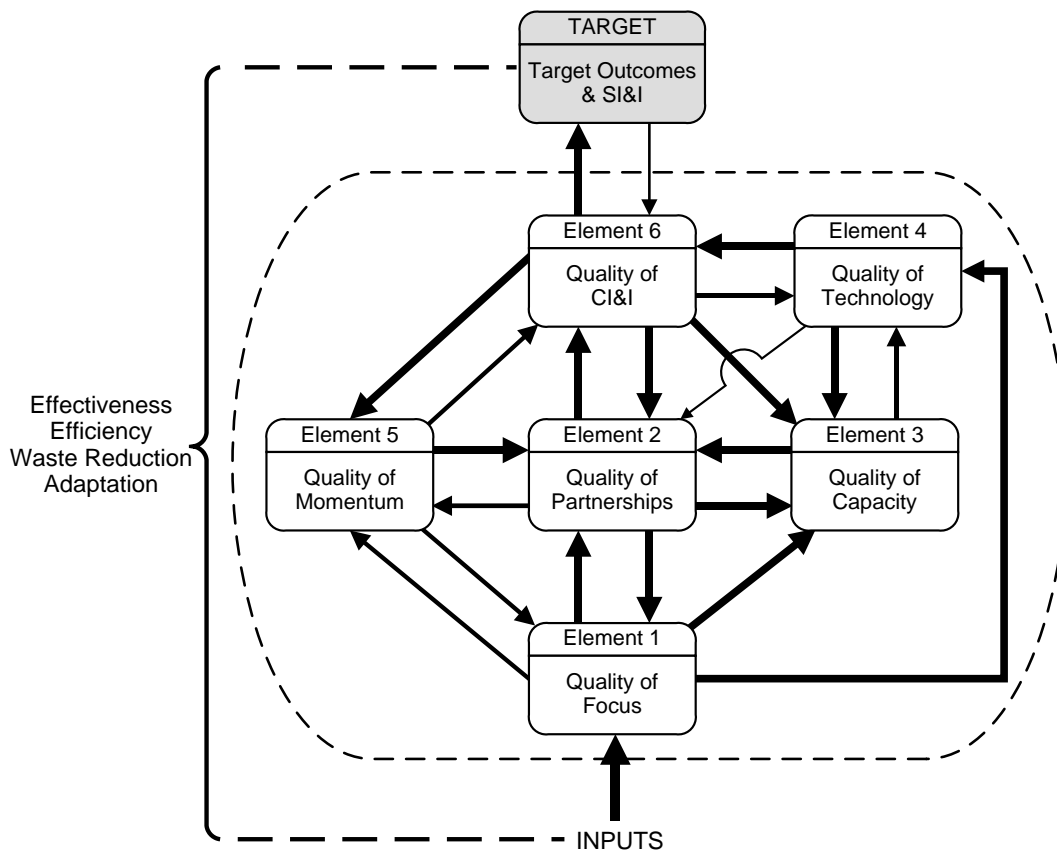


Figure 4.2. The relative emphasis and effort given to the elements of the sustainable improvement and innovation system over the life of a project

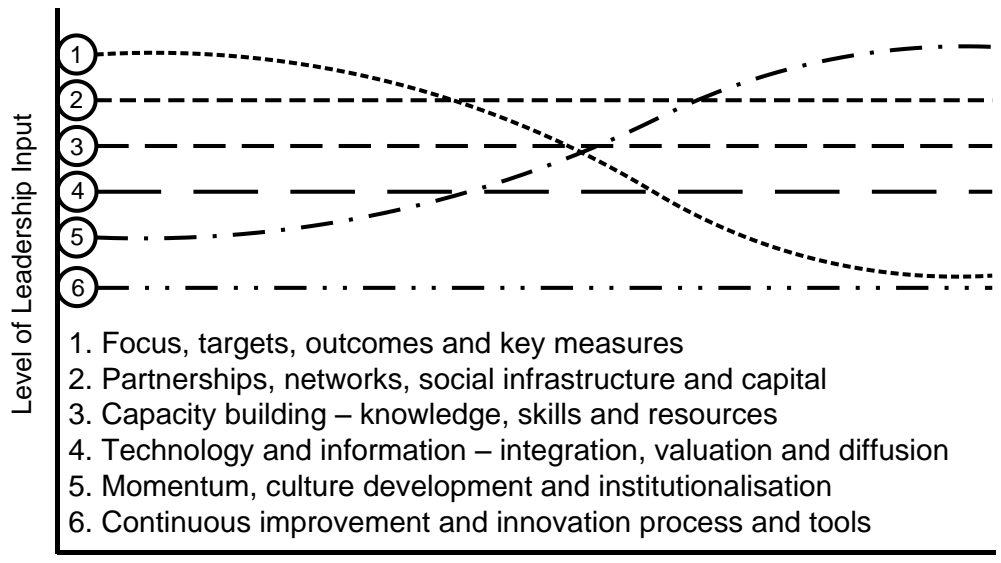


Figure 4.3. Six strategies to ensure effectiveness of CI&I partnerships and networks for beef business profit and growth

