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**Wealth with Green: Lessons WITH Exemplary Green Enterprise**

Dr Peter J Mellalieu

Department of Management and Marketing, Unitec Institute of Technology,

Auckland, New Zealand

Email: [pmellalieu@unitec.ac.nz](mailto:pmellalieu@unitec.ac.nz)

## **Wealth with Green: Lessons WITH Exemplary Green Enterprise**

### **ABSTRACT**

The paper reports progress on the launch of a project to empower a multi-disciplinary faculty of students and teachers to implement practical actions towards improving environmental sustainability in their multiple contexts. The project focusses on drawing lessons FOR and WITH SMEs who have the ambition to achieve a zero or positive environmental impact as a by-product (or product) of their operations. The rationale for the project is that many efforts to pursue environmental sustainability are insufficient to address the true environmental challenges that face societies. The paper concludes by challenging educators to adopt Education for Sustainability enabling every graduate to think and act as a sustainable practitioner in their employment, their household, their communities, and their professional discipline.

**Key words:** Regenerative enterprise; eco-entrepreneurship; green technology; empowerment; masterclass; exemplary enterprise; wealth with green

### **INTRODUCTION**

'I know there's a problem, but what do I do?'. This question confounds both students, teachers, and small-medium enterprise (SMEs) as they contemplate the eclectic challenges of environmental sustainability. The challenges seem huge. The possibility that any effort we might take as an individual appears as ineffective as adding an extra drop of water to an ocean.

Furthermore, any more ambitious effort we might take to 'change the world' is probably doomed to lead us on a path of failure and despair. Nevertheless, there are actions we each can take to improve the environmental sustainability of our households, our communities, our professions, our workplaces, our ventures. However, the choice of actions and their consequent impact is unique to each person's context, capabilities, and motivations. Moreover, the steps we take as individuals might, perchance, inspire a growing 'coalition of the willing' to develop their personal sustainability agenda thereby growing the productive impact of our own actions.

This paper reports the progress on the launch of a project designed to empower a multi-disciplinary faculty of students and teachers to identify and implement practical actions towards improving environmental sustainability in their multiple contexts. Specifically, the project is focussed on drawing lessons FOR and WITH SMEs who have the ambition to achieve a zero or positive environmental impact as a by-product (or product) of their operations. For the purpose of this paper,

an SME is defined broadly, to include for-profit, not-for-loss, start-up, nano-enterprise, and short-lived/project ventures such as movie, theatrical, or event productions.

## **BACKGROUND LITERATURE**

In 2011, Unitec Institute of Technology, New Zealand, adopted a four-themed environmental sustainability strategy with the goal of 'To consistently exceed Australasian benchmarks for the environmental performance of tertiary education facilities', a summary of which is shown in Figure 1 (Unitec Environmental Sustainability Strategy, 2011). However, the students I experience in my teaching at Unitec are significantly ignorant of the environmental challenges facing businesses, communities, cities, nations... the planet. The reason, I suspect, is that many of my students are international or recently-resident students from developing countries such as India, China, or the Middle East. My specific context is that I teach students of business, specifically in the disciplines of innovation and entrepreneurship, operations management, and strategy. Furthermore, I discovered that most of these students believed that the key rationale for an enterprise to adopt environmentally-sound practices is to reduce waste, thereby reducing cost, therefore improving profit. I share the opinion of many of my colleagues that this rationale is an alarmingly limited perspective of the strategic drivers and options for an enterprise to adopt environmentally sustainable practice.

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Insert Figure 1 about here

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In contrast to my experience of students from developing countries, I observe that students either born, or longer-lived in New Zealand are aware that environmental problems rank highly amongst challenges for both New Zealand and the world. These students agree that New Zealand country is not so '100 % Pure' as it could/should be reflecting analysis by Oram (2006, 2007), Sackur (2011), KPMG NZ, (2013) and KPMG (2013). However, these young New Zealanders express their profound incapacity to take significant, practical action such as influencing businesses, policy-makers, and/or other agencies to take appropriate action. These students ask the question: 'I know there's a problem, but what do I do?'

In summary, nearly all the students in my teaching experience lack the skills and confidence to make informed choices about consumption, professional leadership, and/or political action to influence their lives, their communities, and/or their employers towards pursuing an environmentally-sustainable future. Nevertheless, recent surveys in New Zealand demonstrate that the demand for appropriate environmentally-appropriate action from the suppliers of products and services is growing strongly (Collins, Lawrence, Roper, & Haar, 2010, 2011; Better business, better world 2012, 2012; Better business, better world 2013, 2013). Furthermore, leading international companies have begun to adopt Integrated Reporting frameworks that move consideration of corporate and environmental responsibility from the sideline into one organisational reporting and strategy development process. For instance, Figure 2 illustrates the key elements of the value creation process as a component of an integrated reporting and strategy framework (The International Integrated Reporting <IR> Framework, 2013).

In conclusion, there is an important - increasingly urgent - challenge for most educators to learn how to empower their students as informed, competent, and confident change masters leading environmentally-sustainable practice. The focus need not be 'world changing', but starting with accessible change contexts, such as a student's employment, their residence, their communities, and their professional discipline. However, there is a special challenge in assisting small-medium enterprise to respond to the New Zealand and international 'green waves' of supply-chain and end-customer demand due to the emergence of a 'sustainability divide' between the practices of larger New Zealand companies and SMEs employing less than 100 people (Collins, Lawrence, Roper, & Haar, 2010, 2011). Collins et al explain that as medium and larger 'early innovator' companies embrace eco-sustainable production as a necessary strategic core competency, they are demanding higher requirements for sustainable production from their suppliers. One challenge, therefore, is for new tertiary graduates to help smaller companies and larger, late adopters to bridge this 'sustainability divide'.

A key element of the current project identifies best-practice lessons from ambitious and/or high achieving environmentally sustainable SMEs, innovators, and entrepreneurs operating in and beyond New Zealand. In particular, the project intends to draw lessons from those enterprise that have progressed beyond recycling and waste reduction to the regeneration and restoration of natural capital - emulating the ambition of multinational carpet manufacturer Interface Flor. In 1994, the founder and

chairman of Interface, Ray Anderson, initiated what became known as 'Mission Zero': an intent to achieve a zero environmental footprint by 2020 (Anderson & White, 2009, 2011). Since pursuing Mission Zero, Interface has achieved remarkable environmental outcomes such as adjusting its principal input feedstocks from petrochemicals to biochemicals and recycled materials. Creative designs for its principal product, floor tiling, have reduced waste during installation, and enhanced end-of-life product repurposing. Meanwhile, the company has achieved higher sales and profitability, partly in response to its ever-increasing 'green' credentials, and partly due to efficiency improvements.

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Insert Figure 2 about here

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## **METHODOLOGY**

The research question motivating the research programme is: 'How do we enhance the depth and impact of the best aspects of professional education for sustainable development (EfS) within the context of an institute of technology, its stakeholders, and particularly SMEs?' To answer this question entails exploring further questions such as:

1. What is the extent to which SMEs have adopted policies focussed on journeying towards net positive environmental impacts from their activities? (That is, including restoration or regeneration of natural capital);
2. What are the best examples of teaching practice currently extant at Unitec that contribute towards enabling graduates to work with and/or create environmentally regenerative SMEs?
3. What lessons for professional practice and teaching can be drawn from local enterprise who have undertaken a journey towards being environmentally regenerative in their processes?  
How can we productively share these lessons?

The research methodology for the project combines Appreciative Inquiry initiated through a series of masterclasses with exemplary practitioners of 'green enterprise'. Appreciative Inquiry (AI) is a participative, multi-stakeholder multi-institutional change process informed by the principles of positive psychology and positive organisational behaviour (Luthans & Youssef, 2007; Seligman & Csikszentmihalyi, 2000). According to AI's founders, 'Appreciative Inquiry is a coevolutionary search

for the best in people, their organizations, and the relevant world around them. In its broadest focus, it involves systematic discovery of what gives 'life' to a living system when it is most alive, most effective, and most constructively capable in economic, ecological, and human terms' (Cooperrider & Whitney, 2005).

The project commenced with a series of masterclasses with exemplary practitioners of 'green enterprise', branded 'Enterprise GreenWorks'. The masterclasses are informed by the genre of a 'reality TV' format such as 'The Apprentice' and 'Dragons' Den', focussing the learning partners (students, teachers, SMEs) on learning and applying knowledge to achieve a variety of 'greening the enterprise' challenges faced by the client enterprise for each episode. Each episode of Enterprise GreenWorks results in multi-media and other pedagogical resources published to widely-accessible platforms, such as YouTube and the iTunes University. For examples, see Mellalieu, Sun, & Willis, 2000; Mellalieu, 1999; Mellalieu, 2013a, 2013b. Spin-off projects engage students and teachers implementing the most promising solutions identified during each episode according to the pedagogies of project-based learning (Markham, 2011).

## **RESULTS AND IMPLICATIONS**

The project was announced formally in late 2013, and the author began 'pitching' the project to stakeholders within Unitec (Mellalieu & Gunaratne, 2013; Mellalieu & Williams, 2013). By early 2014, institutional support from several deans and academic colleagues began to evolve. An Associate Dean for academic development recognised that embracing Education for Sustainability (EfS) across the faculty for which she held responsibility was a positive opportunity for achieving several of the faculty's strategic objectives including:

1. To create highly productive, future-oriented citizen graduates;
2. To promote inter-disciplinary, trans-disciplinary, and trans-media education; and
3. To produce high-quality, generic professional development resources that can be embedded easily into teachers' existing courses and/or made available directly to students on a 'just-in-time' basis.

In particular, the commitment amongst a few faculty members began emerging towards embedding at academic programme and course level the goal that 'every graduate may think and act

as a sustainable practitioner'. This goal is already pursued by New Zealand's most advanced tertiary participant in the field of EfS, Otago Polytechnic (Mann, 2011. s. 2.1, p. 21-22). These initiatives at faculty level were to continue the deep embedding and implementing of Unitec's corporate strategy for environmental sustainability mentioned earlier (Unitec, 2011; Figure 1).

As a parallel complement to the Associate Dean's 'top down' strategic disposition the Enterprise GreenWorks masterclass programme is intended to comprise a mutually-reinforcing 'bottom up', intrapreneurial approach conducted in collaboration with a television and trans-media director-academic from the Unitec Department of Screen and Performing Arts. Several exemplary and ambitious green entrepreneurs have been identified as candidates for Enterprise GreenWorks.

For instance, one early episode will explore the provocation: 'How do we ensure that emerging green products and services face a fair and 'level playing field' as they compete for uptake against powerful incumbents with vested interests in 'smokestack' technologies and industries?' In particular, this episode will explore the institutional, legal, and anti-competitive features of the New Zealand electricity industry which inhibit appropriate levels of consumer adoption of solar electric generation, such as the absence of Feed in Tariff legislation found in most OECD countries (Keenan, 2011; McCrone, Usher, Sonntag-O'Brien, Moslener, & Grüning, 2013). The episode will also examine the entrepreneurial opportunities for launching new businesses based around the disruptively advancing performance to cost ratio of new 'green' products such as architectural and structural solar panels. A series of twelve episodes per year are proposed for production.

### **The retreat**

By April 2014, support for the 'top down' ambition to more deeply embed sustainability into academic programmes had faltered, hitting its own 'sustainability divide'. The Associate Dean for Academic Development explained that in her consultation of Heads of Department she was satisfied there was sufficient course and programme content pertaining to issues of environmental sustainability. Furthermore, the Dean for Research suggested that the sustainability initiatives discussed in the paper should be funded from external research funds.

Unsurprisingly, members of Unitec's Environmental Sustainability Committee dispute the conclusion of the Associate Dean. The committee's view - that a more ambitious environmental sustainability policy was required for academic programmes - seemed to be affirmed from informal

advice provided to members of the committee by the Chief Executive. The Chief Executive expressed his desire for an ambitious environmental sustainability strategy for 2024, integrated with both occupational health and safety, that would go beyond legal compliance.

### **CONCLUSIONS: WHAT, THEN, SHALL WE DO?**

This paper began with the notion that for many students and teachers the possibility that any effort we might take as an individual appears as ineffective as adding a drop of water to an ocean. In contrast to this 'hopeless' metaphor, I have begun to re-image the story informed by the notions of chaos theory, in particular the 'butterfly effect' coined by Lorenz (1972). Lorenz, a climate scientist, reflected on the huge mathematical challenges of short term-weather forecasting. He pondered whether the flap of a butterfly's wings in Brazil might set off a tornado in Texas. Other 'butterfly effects' we can imagine are the 'straw that breaks a camel's back' or the shout in a mountain that initiates an avalanche. These examples suggest the release of a force often destructive to human interests. However, I am sure there are positive examples that can be identified. Perhaps our small action might act as that unique trigger that releases a huge, positive impact elsewhere? (Figure 3) I also suspect that the economist Schumpeter's notion of 'creative destruction' also has relevance to our task of empowering a few of our students to become 'green revolutionaries' and eco-entrepreneurs (Schumpeter, 1942; Hartshorn et al. 2005).

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Insert Figure 3 about here

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### **QUESTIONS FOR TEACHERS CONCERNING EDUCATION FOR SUSTAINABILITY**

1. What are the problems of 'sustainability'?
2. How could Education for Sustainability (EfS) contribute to their resolution?
3. What is the role for EfS in my profession, programme and/or course?
4. What drivers and barriers for introducing EfS do I face?
5. What do I do?
6. What can I do RIGHT NOW?

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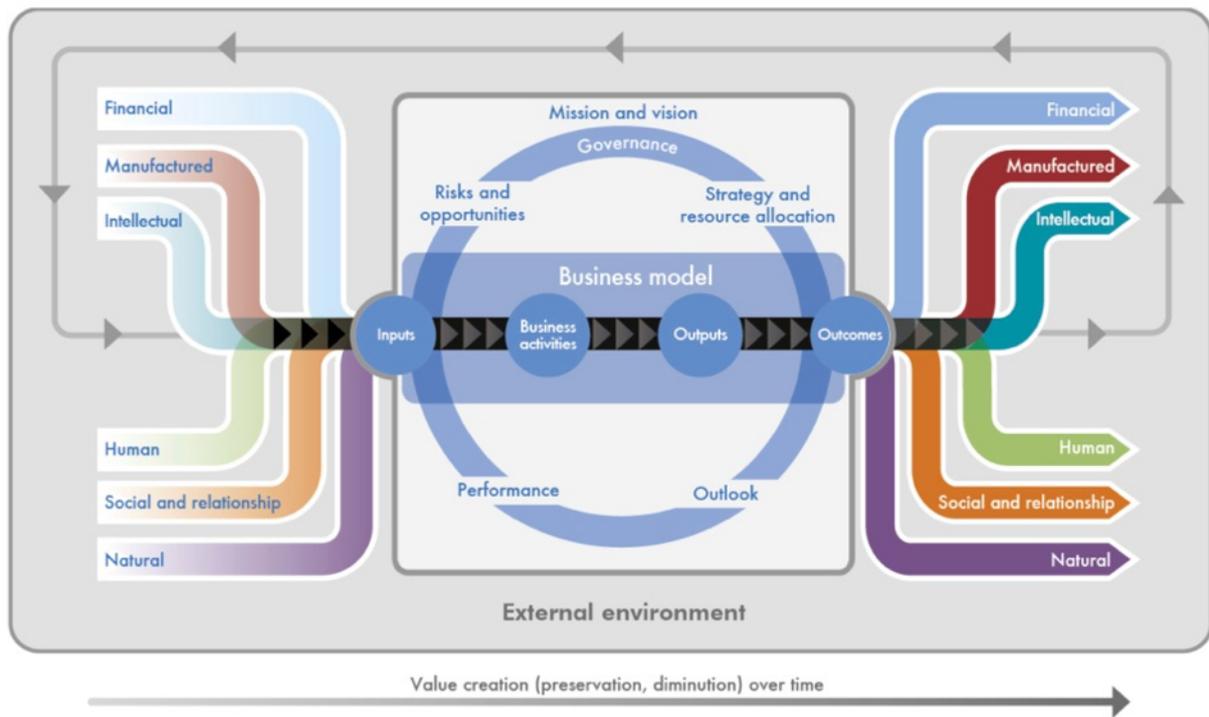
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**Figure 1: The four strategic themes of Unitec's corporate environmental suitability strategy**



*Source: Unitec Environmental Sustainability Strategy, 2011*

**Figure 2: The value creation process as a component of an integrated reporting framework**



Source: *The International Integrated Reporting <IR> Framework, 2013, Fig 2, p. 13*.

**Figure 3: From a single seed may a thousand eco-trees flourish**



*Source: Unitec Environmental Sustainability Strategy, 2011 & Mellalieu, K., 2014.*