

FINAL REPORT

ARIES MBA 3: UTS Faculty of Business

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Towards a Masters in Sustainable Business: A Partnership Approach

July 2008

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This action research project was conducted by A/ Prof Suzanne Benn and Robert Perey from Graduate School of Business, Faculty of Business (FoB) with the support of ARIES and funded by the Australian Government Department of the Environment, Water, Heritage and the Arts.

Aims and Background

The Millennium Ecosystem Assessment (2005) highlights the urgency of the need for new kinds of organizations and institutional forms to maintain ecosystem services and ensure human well-being. Numerous other authoritative reports on sustainability and sustainable development similarly demonstrate the importance of simultaneously accommodating ecological, human and economic interests in the management practices of contemporary organizations (eg Intergovernmental Panel on Climate Change, 2007; Stern, 2006). To a number of critics, the greening of business and management literature as yet offers no concrete suggestion on how to break with the established and ecologically destructive management systems of the past (eg Jermier, Forbes, Benn & Orsato, 2006; Starkey and Crane, 2003). On this view, the urgency of the response lies in the need to address a major systems failure (Coupland, 2005; Enrenfeld, 2005).

Scholars now argue that education within business schools and across disciplinary areas must change in order to reflect the requirement for systems-based change. The key issue is to develop reflexivity amongst business leaders and other professionals so that they critically explore their values, attitudes and beliefs concerning the relationships between social, economic and environmental systems. (Collins & Kearins 2007). Change away from the destructive practices underpinning the dominant paradigm of economic development is dependent on a normative shift towards preserving and restoring natural capital.

Partnership formation between industry and other sectors is seen as a generic approach to developing the capacity within society to challenge established understandings of the relationship between social, ecological and economic systems (eg Bressers and Brujin 2004; Young and Tilley 2006).

Research question:

This project therefore addresses the following research question:

In the context of partnering with corporations to develop a Masters in Sustainable Business program, does this approach (action research/learning and Education for Sustainability) create organisational/systemic/institutional change for sustainability?

Expected outcomes:

The expected outcomes from the ARIES program included changes to mainstream sustainability in business school pedagogy, resources and core curricula, and the operations of the business schools and their corporate partners. UTS FOB had already established sustainability education in much of its curriculum, teaching practices and resources, so the primary focus of this project was for UTS to move closer to the longer-term goal of establishing a leading MBA course in education *about* and *for* sustainability.

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Summary of project outcomes

This case is an exploration of a participative approach to change for sustainability in the context of an Australian tertiary education institution – University of Technology (UTS), Sydney. It involved an action research process which attempted to introduce sustainability into the core business model of the university through the introduction of a new product: a cross-disciplinary Masters in Sustainable Business, to be developed with the cooperation of industry partners.

We emphasise that the observations and conclusions of this Report were drawn at a particular point of time and that they do not reflect current conditions at UTS. The Report is not meant to indicate particular attributes or shortcomings of UTS, but to highlight the structural and political challenges faced in mainstreaming EfS into university-wide curricula.

The research was conducted by Assoc Professor Suzanne Benn and Robert Perey, from the Faculty of Business (FoB), UTS. A/ P Benn was involved in the project throughout. In the first phase of the project she developed the initial proposal to the School of Management, FoB, for a Masters of Sustainable Business. Findings from this phase of the project then informed her ongoing participative inquiry through her engagement in the subsequent consultations and negotiations across UTS concerning the substitution of the proposed Masters in Sustainable Business by a cross-Faculty Masters in Sustainability, designed to draw on UTS's key research and teaching strengths. This new program is expected to be introduced at UTS in 2009 or 2010.

Robert Perey assisted in analysis of the case for a cross-disciplinary Masters degree according to the tenets of Blue Ocean theory on strategic innovation. His reflections on that process are incorporated into this report and inform the understandings of both researchers on how cross-disciplinary and interdisciplinary teaching programs on sustainability may gain support within business schools. He also assisted in the analysis of the student feedback on sustainability subjects in the MBA program at UTS, leading to suggested revisions in curriculum and curriculum assessment redesign for subjects within the Spring semester program in the MBA program at FoB, 2008.

At the time of writing, the proposed new Masters degree has not been finalised and is currently under review with the Deputy Vice Chancellor, UTS. Expectations have been that it will commence in 2009, although delays in decision making as to which Faculty or disciplinary area will house the degree may defer implementation. The degree will compose three levels: core; secondary core and specialist areas. It is understood the core subjects in Year 1 will include the new subjects Sustainable Theories & Business Models, Systems Thinking, Environmental Science, Governance and Ethics, in Year 2 will include Sustainability Applications, Sustainability Project., Strategy for Sustainable Enterprise: The specialized elective majors will include existing subjects selected by Faculties of Business, Engineering, Humanities and Social Sciences, Information Technology and Design, Architecture and Building. It is likely that it will be housed in either the Faculty of Engineering or the Faculty of Humanities and Social Sciences. Law

subjects are also likely to be offered. It might be expected to enrol up to 400 students within the first three years.

The process of participative inquiry across the disciplinary specialists generated the following suggestions on the workplace roles that such a teaching program could target:

International development

- Resource economists (economics)
- Project design specialists (range of disciplines)
- Environment staff and relevant policy-makers - environmental governance, water and sanitation, climate change and forestry (political science, law, engineering, forestry, Geography)

State and commonwealth departments of environmental protection / environmental management

- Environmental Education program officers (adult education, environmental science)
- NRM roles in state NRM departments and Commonwealth Department of Agriculture, Fisheries and Forestry and DEWR (agricultural science, forestry, ecology, geography, marine science, aquaculture, horticulture, botany, zoology)
- Policy Officers in state and Commonwealth natural resource, environment and agriculture departments (science, ecology, geography, economics, politics, law, public policy)

Property sector

- Facilities managers (building, engineering)
- Urban designers, architects, planners (planning, urban design, landscape design, architecture, eco-architecture, heritage)
- Sustainability managers (range of disciplines)

Water, energy, transport industries or government agencies

- Strategic planners (engineering, business)
- Stormwater/wastewater/water supply/ water cycle management (water engineering, hydrology)
- Energy efficiency and environmental officers (engineering, business)
- Water, energy and transport policy officers (engineering, economics, environmental science, political science)

In local government

- Waste management and resource recovery (environmental studies, engineering)

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- Environmental education (environmental science, education, community development)
- Environmental management – catchment management, compliance, environmental health, conservation and land management (environmental management, environmental science, natural resource management, freshwater ecology, marine science, environmental health, environmental law)
- Stormwater / water cycle management (water engineering, hydrology)
- Assets and infrastructure management (engineering, commerce)
- Strategic Planning (planning, heritage, transport planning, urban design, architecture)

Business

- Corporate planning and communications (Science communications, communications, PR)
- Corporate social responsibility (CSR), environment and quality assurance officers

In corporate consultancies

- Water engineers (hydrology, environmental engineering, civil engineering)
- Auditors (accounting)

Community sector

- Environmental NGO Project Officers (environmental education, environmental law)

Media and marketing (communications managers, NGO liaison officers, corporate affairs personnel)

Approach

Our overall approach is case-based research methodology using an action research based approach. This approach is suitable because we are exploring and critically reflecting on the detail of how change for sustainability (Yin 2003) can occur as a result of cross-disciplinary curriculum developments led by a business school in collaboration with industry. We followed action research principles, involving an iterative process of action and reflection, as far as possible following the participative framework of co-operative inquiry (Heron, 1996). Two key principles of social change underpin the project: Education for Sustainability (EfS) and Strategic Stakeholder Partnerships (SSPs).

Education for Sustainability

Education for Sustainability as defined, motivates, equips and involves both individuals and communities in reflecting on how they currently live and work. It aims to implement systemic change across all sections of the community. (Tilbury *et al* 2005).

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According to the NSW Government Environmental Education Plan (2007, p. 12; modified from IUCN 2005), EfS is a process of moving towards sustainable development. It does this by:

- focusing on participant value clarification and ability to co-create a sustainable future
- building capacity for sustained change and improved quality of life
- linking awareness-raising and behaviour changes to broader lifestyle choices
- developing skills and knowledge for socially critical citizens to deal with complex issues
- focusing on sustained social, institutional and organisational change, working to mobilise learning across all levels of society
- focusing on triggering fundamental shifts through creative exploration of values

EfS assumes the interconnectedness of all human and environmental aspects and therefore the need for holistic approaches in order to draw together different approaches to sustainability.

Strategic Stakeholder Partnerships

The term partnership is often used interchangeably with terms such as coordination, collaboration, and networking. This infers different levels of formal relationship, change and commitment. ‘Partnership’ is the most committed form of relationship and can include joint planning, implementing and evaluating of activities, programs and policies. Successful partnerships combine an organisational commitment, honesty and trust with a common agenda of shared objectives and understanding of partners’ priorities’ (NSW Government Environmental Education Plan 2007, p. iii). While partnership as so defined is accepted as a foundational principle of EfS, the growing importance of SSPs in achieving sustainability outcomes justifies our emphasis on the concept of strategic partnering between stakeholders as a distinct and key element of social change. SSPs refer to mutually beneficial relationships between individual or organisational stakeholders that are formed around strategic change programs targeted at sustainability outcomes (Williams 2002). They are measured in terms of their influence, impact and alignment (Andriof 2001).

Methodology

Case-based research can be carried out using a range of methodologies. We have applied principles of action research to investigate this project. Following action research principles, we identified the issue that current dominant politico-economic systems are unsustainable. We nominated a solution: that education, within business schools and for professional education in general, must foster reflexivity and critical reflection in the relationships between social, economic and environmental concerns if humans are to develop a sustainable means of inhabiting the planet. We attempted to implement this

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solution and gathered data in order to reflect on and evaluate its success as a means of generating ongoing change around sustainability practices. We drew together different sources of data in order to validate our findings. Our sources of data include surveys, interviews, and ethnographic observation and interpretation, including participant observation. We also explored the approach to redefining business strategy outlined in the Blue Ocean Strategy (Kim and Mauborgne 2005) for its potential to generate innovation for EfS.

Engaging and gathering data

1. In order to collect information on suitable curriculum content we conducted an *international survey of business schools* in terms of their sustainability course content. Although this survey was not funded by ARIES, it has provided a broad understanding of the different framings for the integration of sustainability into business school curricula and how the link may be made between business studies and other disciplinary areas. Several hundred colleagues in business schools in North America and Europe were contacted through personal connections (A/ P Benn) with the Organisation and Natural Environment Division of the Academy of Management, the leading academic body in Management and Organisation Studies. The response includes 20 detailed examples of business curriculum that incorporates sustainability principles, with suggestions for varied program structures for delivery of the curriculum. This initiative is still gathering material as business schools become aware of the project and contribute their details to the website.¹
2. We proposed a new program, Masters of Sustainable Business, which could be offered within the existing Masters of Management at UTS. After *consultation* with the Head of the School of Management, in FoB, A/ P Benn received approval to research the possibility of introducing this new program.
3. We also *contacted via email* all members of the FoB at UTS concerning their interest in participating in an interdisciplinary Masters program in sustainability and identified faculty and courses in Schools of Tourism, Accounting, Finance and Marketing within FoB. We identified levels of faculty from Faculty of Business who wished to get involved. We sorted faculty at levels ranging from willingness to design new subjects to those just wanting to be kept up to date.
4. We also *discussed* possible collaboration strategies with our industry partners: Fuji Xerox, Coca-Cola, and IAG.
5. In a parallel development in late 2007, the Institute for Sustainable Futures (ISF) at UTS was charged by the Pro Vice Chancellor (PVC) for Research to explore the possibility of establishing a cross-faculty Masters of Sustainability at UTS. A/ P Benn informed ISF of the ARIES project and worked collaboratively with the ISF team in an attempt to bring these two projects together. The outcome was a

¹ Organisation and Natural Environment Division, Academy of Management, at <http://www.one.aomonline.org/>
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decision that it would not be viable to implement two parallel cross-disciplinary sustainability courses at UTS. It was also recognised that the FoB profile in sustainability research and teaching at UTS is high enough for Business subjects to be included as a key element of a new degree.

6. A cross-Faculty Steering Committee of five senior academics (including A/ Prof Benn) was formed with the support of PVC for Research and PVC for Teaching and Learning to lead the development of the new Masters program. The academics represented the following Faculties: Business, Humanities, Engineering, Information Technology, and Design Architecture and Building. The Committee met regularly from October 2007 to late 2009, and the Committee was informed that A/ P Benn was conducting research on the decision-making process for an ARIES project.
7. The Steering Committee supported a *participatory* cross-UTS approach to gauge Faculty interest and strengths in sustainability and to develop curriculum frameworks. All the above Faculties were well represented at several *workshops*, at which leading educators associated with cross and interdisciplinary teaching programs around sustainability such as the Masters in Foresight at Swinburne, communicated their teaching programs and approaches. FoB faculty members attended from the Schools of Management, Tourism and Accounting.

An important learning from the workshops was that there is no common disciplinary background of students who enroll in such teaching programs. They draw from strategy, marketing, education, policy and the common element is that students are people who have already started asking themselves 'why'. As indicated by the long list of potential workplace roles described above that the degree could appeal to, the sustainability area is diffuse, yet incorporates highly specialised skills and capabilities that are already embedded in the objectives of numerous teaching programs across the university. A leading educator at UTS made the further point that while problem based approaches may intuitively seem appropriate, it is important to acknowledge that students are seeking structure ie some kind of scaffolding in their experience. We need to consider some kind of sequencing as an important dimension of learning at a tertiary level.

8. The Steering Committee and the wider UTS workshops engaged in an iterative process of *participatory decision making* to come up with suggestions for the structure for the new degree. We also asked each Faculty area to carry out a process of envisioning where graduates might work. This highlighted to us the wide range of career positions that could incorporate sustainability and caused us to reflect on the importance of developing professionally - related streams within the new degree. The learning is that while sustainability is inherently transdisciplinary, there are specialist directions emerging particularly in Business and Humanities (such as in the areas of communications and the media) to complement the more science-based focus traditionally associated with the field.

9. Each member of the Steering Committee also agreed to consult with their Dean as to whether their Faculty is willing to house the degree. The message from FoB was that it would contribute subjects but not house the degree. We learnt from this reaction that we needed to have the support of more senior staff marshaled at an early stage in the project. We then decided to focus on developing a strong list of Business subjects in order to draw more students in Business subjects and more involvement by staff in the cross-Faculty degree.
10. As the cross-disciplinary program was taking longer than expected to get established we decided to collect data from student *surveys* of existing subjects in the MBA program in GSB in order to gain student feedback of perceived relevance of sustainability to a range of business subjects. We learnt from this survey that sustainability is fairly well accepted by business students as broadly relevant to their business subjects. The surprising exception of an innovation subject highlighted to us the importance of the coordinator – it does not matter how relevant we see it as, if it is not relevant in the minds of the coordinator EfS will not happen, unless it is written into the core objectives of the course or individual subjects. The survey was conducted in order to hone our efforts at integrating sustainability, commenced in ARIES Stage 2. We decided it would also add to our understanding of what subjects would be most successful if integrated into the cross-disciplinary program. We complemented this data by conducting an *in depth interview* with the lecturer of Managing for Sustainability, a subject coordinated by A/ P Benn within the GSB and MBA program. This interview enlightened us on the importance of making the curriculum relevant to the individual student workplace and of drawing this experience into the class discussion. It highlighted the importance of lecturers emphasizing the ‘here and now’ or immediacy of sustainability related decisions in contemporary workplaces. The data will be useful to guide curriculum development for the new Masters degree – indicating subjects where champions have already embedded some sustainability teaching material and/ or where students more readily see its relevance.
11. We conducted a *mini-workshop* with ARIES representatives and industry partners IAG and Fuji Xerox in order to establish suitable practice-based learning strategies to be implemented in Spring Semester in the MBA subject, *Change Management*. These strategies will hopefully be able to be embedded into the wider cross-disciplinary course at UTS in 2009.
12. A/ P Benn joined a Working Party designed to facilitate work-ready learning at UTS. Through *observations* on how this Working Party is achieving its aims and by contributing via suggested work-ready teaching activities, developed through our workshopping with industry partners, we gathered data on how subjects for the new Master program and for our standard MBA program can be modified according to both EfS and SSPs principles.
13. A/ P Benn conducted an *interview* with Pro Vice Chancellor Shirley Alexander on the relevance of Blue Oceans strategies to this cross-disciplinary course offering.

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Blue Ocean Strategy

This following section is a heavily condensed summary and interpretation of Blue Ocean strategies as presented in the book 'Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant' (Kim and Mauborgne, 2005).

The world is divided into Blue Oceans (BO) and Red Oceans (RO) where the RO is the playing field most organisations are familiar with. RO represents the daily competitive order that erodes the differentiation of organisations as their market space matures. The maturity of the market is characterised by two factors, the increasing number of participants seeking a livelihood from the same resource base, and the reduced differentiation between participants as knowledge is shared and disseminated as an outcome of the business cycle. BO is characterised by breaking free of this RO pattern and creating new boundaries and rules that the initiating organisation controls and defines; it is a rewriting of the institutional rules for that business.

BO is a label given to a method developed by Kim and Mauborgne (2005) to help organizations create a new value proposition, for the delivery of their goods and services, that positions them in a redefining uncontested market space that they control. The important point here is that BO is conceived as an organisation specific strategy that separates the organisation from its competitors for a reasonable period of time. The BO approach does recognise that over time the BO becomes an RO as this new value proposition becomes institutionalised, and the cycle starts over again.

In a highly saturated market Kim and Mauborgne (2005) argue that the knowledge and rules defined by RO dictate the normal approach to product/service definition and this action occurs within the known parameters of existing industries.

Working from an RO base, BO does not create something out of nothing. The new value proposition already exists and is waiting to be discovered. The creation process is to engage in visualisation of new configurations of existing patterns of behaviours and approaches that are extant in ROs (multiple ROs, the organisation's industry and other industries).

BO is presented as a whole systems approach where to get the formula right you need to tackle all fronts of the framework, outlined by Kim and Mauborgne, simultaneously. The framework is challenging organizations to deconstruct the disciplines and specializations within ROs, not only theirs, but also the ROs of other industries to fundamentally re-conceive the definition of products/services, the new value proposition that lets you stand apart from your marketplace but still within it. An example given is Cirque du Soleil that redefined a circus without animals and found a new audience to supplement traditional circus audiences.

It is this concept of a new value proposition for EfS that redefines a university product that is at the heart of our exploration of BO. The implication here is not only trying to harness external support for subjects and courses, but more importantly, overcoming internal resistance to change within UTS. The imperative is that the current tertiary sector environment in Australia is characterised by increasing commodification, decreasing profits, supply exceeding demand and difficulties in differentiating brand. In the case of

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establishing a cross-Faculty and interdisciplinary approach to sustainability at UTS, these challenges are perceived as compounded by an initiative that increases the complexity of existing course provisions by adding the components of sustainability. Our experience of FoB rejecting the suggestion that it should house the new Masters degree is a demonstration of RO logic using a risk mitigation approach to these challenges.

At the heart of BO is a simple framework based on the six principles listed in Table 1.

Formulation	Risk Factor (to decrease)
Reconstruct market boundaries	Search risk
Focus on the big picture, not the numbers	Planning risk
Reach beyond existing demand	Scale risk
Get the strategic sequence right	Business model risk
Execution	Risk factor (to decrease)
Overcome key organisational hurdles	Organisational risk
Build execution into strategy	Management risk

Table 1: Blue Ocean Framework

The purpose of BO strategy is to decrease business risk by working with these six principles to create a new value proposition that positions services and products in such a way that they are difficult to imitate and that they attract an expanded customer base. The BO process has affinity with action research and learning, it is iterative, and seeks to answer four key questions based on the following criteria, eliminate, reduce, create, and raise:

Eliminate – which of the factors that the industry takes for granted should be eliminated?

Reduce – which factors should be reduced well below the industry’s standards?

Create – which factors should be created that the industry has never offered?

Raise – which factors should be raised well above the industry standard?

Finally at the heart of designing the new value curve is a series of defined steps, the ‘Six Paths Framework’:

Look across alternate industries for possible alternatives not substitutes for the products and services you are creating.

Look across strategic groups within industries to see how these are differentiated. Within industries there are only a small number of strategic groups.

Look across the chain of buyers to understand differences in purchasing behaviours/uses.

Look across complementary product and service offerings to understand what happens before during and after your product is used.

Look across functional or emotional appeal to buyers to answer the question, what do buyers expect, how have they been trained?

Look across time to extrapolate trends not predictions.

As an innovation strategy, BO creates a value innovation that does not make sense to conventional strategic logic. The emphasis in BO is on tearing down the barriers to visioning and design that normally constrain us. Answering the three groups of principles above challenges us to radically engage with our existing preconceptions and understandings about what it is that we deliver. If we look at sustainability education then BO is assuming that existing environmental/sustainability education is an RO and that the need for a university then is to create sustainability education as a BO, a new value proposition that would give that university, in or case UTS, an unassailable lead over others.

We have been discussing the formulation processes and principles of BO strategy, closely linked to the execution principles and processes (see Table 1). In execution, BO looks at experience from change management and deliberately targets strategies that leverage

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people that have significant influence on the actions and behaviours of others. There is a strong understanding that because BO defies conventional logic, there will be a significant resistance to change that needs to be overcome, both internally and externally. For implementation, BO focuses on ‘tipping point leadership’, the recognition that in any organisation there are people/groups that exercise disproportionate influence to their positions and roles. Complementing ‘tipping point leadership’, is a strategy for conserving resources and cutting time by identifying the principal levers to enact change based on the logic that the core changes fast and at low cost because of leveraging the disproportionate influence inherent within:

The Kingpins – key influencers.

Fishbowl management – transparency, inclusion, and fair process make kingpins visible.

Atomisation – bite sized chunks so that people think it is attainable.

Formulation and execution are iterative cycles that are undertaken internally at first, with the focus on getting support to challenge and then redesign the existing value proposition, and as the design and the implications for implementation evolve, the circle of influence becomes larger until it engages stakeholders beyond the boundaries of the organisation.

What happened

The events

As noted above, Faculties from across UTS have participated in the development of the cross-disciplinary program including: Business, Humanities, IT, Science, Engineering, Education, with input also coming from two Research Institutes. There has been high level support from the Chancellory and the new courses are likely to commence in 2009, although this is not confirmed. Market research was conducted by the Marketing Unit at UTS. Drawing from this research, from input from the participatory workshops and from external advice gained from workshopping teaching approaches and subject content with educational experts from other institutions that have implemented cross-disciplinary degrees in sustainability (eg RMIT, Murdoch) a preliminary course structure has been developed.

Teaching staff and UTS Senior Management have agreed on a course outline that is innovative in content and delivery, to include new interdisciplinary subject areas such as systems and futures thinking and to utilize teaching approaches such as practice and problem-based learning.

UTS Senior Management have also agreed to A/ P Benn’s suggestion that input on specific subject content should be obtained from industry – perhaps the establishment of a Roundtable, that would include our business partners: IAG and Fuji Xerox.

Re outcome 1. Changes in business school pedagogy, resources and core curricula which incorporate learning insights and resources generated from this project

Re outcome 1a: Masters in Sustainable Business Program Coordinator position to be created within the School of Management

UTS FoB declined to host the cross-Faculty degree.

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Our learning is that business schools are currently risk averse. The large numbers of international students in MBA programs at UTS inhibits a possible shift away from the more quantitative subjects towards the broad ranging, less specified curriculum associated with sustainability. We suggest a future strategy would be to encourage student awareness and increase student demand through a focus on curriculum development that makes use of the quantitative assessments developing around sustainability - such as the Balancing Act TBL analysis of Australian industry sectors (Foran, Lenzen and Dey 2006). These topics are suitable for introduction into the sections of UTS FoB that have shown little interest in sustainability, at least at senior levels.

A factor underpinning the unwillingness of FoB to take on ownership of the new degree is the senior management sensemaking concerning cross-disciplinary courses. They are traditionally understood as difficult, as impossible to negotiate in terms of cross-Faculty teaching loads and as not contributing to promotional prospects for academic staff. In retrospect, we could have alleviated these fears by engaging more actively, but not aggressively, with this sensemaking.

Re outcome 1b: Survey of student perceptions of subject relevance

Each semester UTS surveys students to gauge their reactions to the subjects they undertake. As part of the spring 2007 survey, we asked that the surveys include a set of questions on sustainability awareness. These questions were designed to assess the impact of the changes to MBA subjects around specially written sustainable business case studies that formed part of the outcomes of the ARIES Stage 2 project.

The subjects selected were in the MBA and other programs offered in the Graduate School of Business, FoB. Table 2 lists these subjects and the summary responses for each subject.

There were four questions asked, ranging from awareness of sustainability issues and concepts relevant to the subject through to effectiveness of the learnings and knowledge gained. The questions were:

1. Through this subject, I have been exposed to concepts such as corporate social responsibility, corporate sustainability, or environmental sustainability.
2. This subject has increased my awareness of their importance of corporate social responsibility, corporate sustainability or environmental sustainability in everyday business.
3. I found the teaching materials concerning corporate social responsibility, corporate sustainability or environmental sustainability concepts interesting.
4. Through this subject I have gained knowledge relevant to the management of corporate social responsibility, corporate sustainability or environmental sustainability issues in my workplace.²

The intent of these questions was to evaluate whether or not work done by academics to introduce sustainability material relevant to their topic areas had gained traction. It was

² We note that we are happy to share these questions with other universities.

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not the intent of these questions to assess how well students understood sustainability or their thoughts on how important an issue they consider it to be.

The overall pattern demonstrates an awareness of sustainability issues and concepts introduced through each of the subjects listed above. The majority of responses lie within neutral to agree and this is probably where the mean is to be expected from surveys such as this, hanging around the centre. What is noticeable is that there are only a relatively small number of students that disagreed or didn't respond to these questions. This would indicate some traction in terms of raising the awareness of sustainability issues amongst participants in these courses.

The other noticeable pattern is that apart from the subject Managing for Sustainability, the subjects that have the highest awareness rating with students are the Human Resources subjects. This may indicate that there is a greater awareness of the social responsibility aspects as compared to the environmental responsibility aspects of sustainability. This suggestion could be explored in further research

Another area requiring clarification relates to the low mean and higher standard deviation across all questions for the Innovation and Entrepreneurship subject. This is counter-intuitive, as in practice sustainability is often promoted as an organisational intervention that can lead to innovation (eg Dunphy, Griffiths and Benn 2007). As sustainability would therefore seem to be a natural fit for an innovation subject, so why do the student responses show such a low awareness of sustainability? Responses to all four questions were low so it does not relate to the fact that the students have already been exposed to sustainability issues in other subjects (Q1 refers to the extent to which the students are made aware of sustainability in THIS subject). Also, given the attention to Blue Ocean strategising that forms part of the UTS project, further investigation into why this subject doesn't appear to generate an awareness of sustainability would seem to be warranted. Given the accepted relevance of this subject to sustainability, and the reliance of sustainability specialists on innovation, it is important to target this subject in any further attempts in integrating sustainability into the FoB. Future research could involve interviews with the subject coordinator to explore collaboration. It is likely, we suggest, that the coordinator is not aware of sustainability in this context.

Re outcome 1c: Framework for course and possible sub-majors developed following Blue Ocean Strategy principles

Structure of the course

The proposed new Masters degree in sustainability is associated with the development of New Option coursework programs at UTS. This program is being considered by senior staff at UTS to match its strong research and facilities management initiatives in environmental sustainability with a suite of coursework programs at the postgraduate and ultimately undergraduate levels. In line with developments across industry sectors and the growing need for professionals with a background in one or the other aspects of sustainability, the program is expected to focus on practice-based learning. The principles of this form of experiential learning include:

- supporting student experience in the workplace.

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- actively embedding industry input into programs
- supporting students to develop career management skills
- supporting students to develop skills to work professionally with their discipline's knowledge as part of the curriculum.³

In the most recent report to the ProVice Chancellors (PVC) at UTS on this project, it was noted that: ‘the Faculty of Business at UTS is a prominent aspect of the university, accounting for approximately 30 per cent of the entire UTS student population. The FoB is already positioned at the leading edge of research, teaching, and community service in Australia in the area of the relationship between organizations and the natural environment, with well-established connections to major industry organizations, government departments and business organizations concerning sustainability. Through an ARIES (Australian Research Institute in Education for Sustainability) action research project, the FoB is already working with representatives from organizations such as Fuji Xerox in order to develop more active partnerships with industry concerned with curriculum content, assessment and student mentoring arrangements in relation to subjects for the proposed degree’⁴.

The Steering Committee for the new degree has recommended a cross-disciplinary approach involving specialized disciplinary streams to compliment the interdisciplinary core subjects to be undertaken by all students. Business subjects to be offered include: Change Management, Organisational Development, Managing for Sustainability, Corporate Governance and Business Ethics. Other possibilities include Supply Chain Management (because of the informed interest of the Coordinator of this subject – very relevant to remanufacturing), for instance.

Meetings with PVCs and Deputy Vice Chancellor indicated their commitment to fund establishment of the degree and some new interdisciplinary subjects. Issues yet to be resolved concerning host Faculty include differences in teaching requirements and allocations across Faculties and the need for ongoing support from the Steering Committee to be institutionalised. As stated, senior management at FoB have decided that FoB will not be the host.

To us these statements and events indicate that UTS sees the involvement of FoB as an important competitive aspect of the new degree – somewhat paradoxical given that our own faculty does not seem to agree. Political issues are at base here – most notably the influence over the faculty emanating from the Accountancy and Economics Schools (due to their huge numbers of paying students). These issues highlight the need for the paradigmatic change described above.

Relevance of Blue Ocean

In an interview with A/ P Benn, and in other informal discussions, PVC Teaching and Learning Prof Shirley Alexander gave her views on the relevance of BO to a) higher

³ See Practice-based learning at <http://www.unisanet.unisa.edu.au/learningconnection/staff/practice/practice-based-learning.asp>, accessed 7 July 2008.

⁴ Material provided by A/ Prof Suzanne Benn to the Steering Committee: New Options Teaching Programs – Sustainability.

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educational programs in general and b) to the cross-disciplinary Sustainability Masters program currently under consideration. Drawing from this discussion and our observations of the data we set out our comments below:

Kim and Maunborgne (2005) spend much time commenting on the internal battles as the main obstacles to creating a BO value proposition. This is the case with the UTS sustainability curriculum project. The reflections of the researchers expand on this observation.

The relevance of BO to EfS/EE is complicated. As we have outlined above, BO as presented by Kim and Mauborgne is a strategy that is designed for individual organizations to gain market edge against their competitors; all the language in the text is framed using competitive imagery, imperatives and examples. In this sense, UTS would engage BO to develop sustainability courses that are dramatically different to sustainability courses being offered by other universities. This differentiation would then create a new standard for other universities to adopt that would over time characterise EfS/EE across all universities. This is a model of innovation happening by a single agent and then permeating throughout that agent's network. In this approach BO would appear to be counter the principles and philosophy underpinning the current ARIES project of AR/AL amongst participating members of the project team. However, following the textbook BO approach would achieve the aim of the ARIES project of establishing EfS/EE as a normative practice by development of a collaborative MBA program, specializing in sustainability, *across* universities, thus overcoming the hegemony of risk aversion current in the tertiary education sector in Australia.

Drawing from our data, we could generate a broad reflection on the following questions concerning BO principles:

Which of the factors that industry (Higher Education Sector postgraduate coursework programs) takes for granted should be eliminated? *Competition between disciplinary areas*

Which factors should be reduced well below the industry's standard? *Face-to-face teaching hours?*

Which factors should be raised well above the industry's standard? *Teaching approaches that are innovative and closely informed by rapidly changing market demands*

Which factors should be created that the industry has never offered? *A strong business component of an interdisciplinary degree in sustainability that focuses on work practices.*

But from the perspective of the current ARIES project, capacity building across the university sector for EfS/EE, strict adherence of BO would seem to be a poor strategy given its antithesis to collaboration amongst competitors. Even here, BO could still be an interesting framework to follow, if the innovating organisation was reconceptualised to encompass all participating members of this ARIES project, acting in a virtual or networked way. This cooperating structure would then be competing in the spirit of BO as outlined in the text.

However, a looser interpretation of BO could be made whereby BO is treated as an approach to innovation without the explicit competitive focus for a specific organisation. In this case, the design stages of the BO process could be undertaken by the project members as part of the current action research methodology to create a new approach to sustainability education that would then be able to be customised to the requirements of individual universities.

UTS PVC Alexander originally proposed the use of BO in our response to the ARIES 2 project as an approach to innovation that the introduction of a multidisciplinary sustainability course may warrant. The support for BO was given at senior levels within UTS and duly incorporated into our project. Hence the use of BO for the ARIES 3 project has had some interesting support. Given its endorsement at senior university levels as a possible lens through which to explore the development of curriculum at UTS, the decision-making around the implementation of the cross-disciplinary degree, did not incorporate BO strategising. For BO to work it needs strong leadership support and it also needs a directive to radically challenge the current activities processes and products that in this case the university offers. There is a deliberate intent to destabilise existing patterns of thinking when using a BO strategy and that in doing this there will be significant resistance to change that generates intense political activity. BO does not address any suggestions for how organizations may overcome resistance. It is left to the 'implementer' to deal with barriers to change. This highlights another important characteristic of the BO text in that it does not engage any form of implementation design beyond outlining general principles of designing 'green fields thinking'. The implied assumption is that organizations will put together a change plan, an innovation plan, and a research process using their preferred models and frameworks. We suggest therefore that BO can be considered more as a meta framework.

The UTS process has engaged a multidisciplinary team from across the university as well as input from external stakeholders to consider how a sustainability course would look and where it should reside. This process is still underway. However, BO is not being fully engaged with as a framework for the design of the new cross-disciplinary course. As indicated by our research, it has failings as an approach in higher education. To us it is apparently not relevant as an approach, rather than indicating that a different change management approach should have been taken. While some new interdisciplinary subjects are going to be developed, the strategy at UTS is highly dependent upon existing subjects and combinations of existing subjects. There has been an attempt to create a new value proposition that would allow UTS to radically differentiate itself within its competitive space and therefore offer something different to the course and products of its peers, such as UNSW and Macquarie. However, this is not to the extent needed to innovate postgraduate education in the market that was, for example, redefined by the MBA program 30 to 40 years ago. The issue is one of cost/ benefit, RO logic. The commitment by UTS to the new degree is already high, with new subjects to be developed, intensive staff development required to develop expertise in practice based teaching, and high levels of risk in the market for the courses. To develop a radical product and approach and commit UTS to a fully green MBA, for instance, would be taking considerable risks with a probably long lead time for returns.

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Rather than UTS has erred in not taking the BO approach or is not following change management principles, the learning is that BO may not be relevant within the boundary of one tertiary institution in Australia. In fact, in the FoB, we have learnt that it is not necessary to push for the transformational change needed to develop a radical new product in the form of a new Masters of Sustainable Business. We can develop a similar cross-Faculty or cross-disciplinary product, not housed in FoB and still have a significant influence through the Business majors of such a degree. Choosing popular and widely relevant subjects such as Change Management, would ensure sustainable business is not marginalized. We need *some* new products in the form of new subjects, *some structural changes* needed to implement the degree and then to deliver professionally targeted streams in our key teaching and research strength areas of Science, Engineering, Business, IT and Humanities (Communication, Civil Society and Environmental Studies). Although it would be a unique offering in Australia because of this unique combination of strengths, the learning is that more radical innovation in the form of a specialised Sustainability MBA may need to come from a cross-campus initiative. We reflected that the sustainability agenda is so broad that there may be room in the market for many versions of the sustainability product.

Re outcome 1d: subjects include EfS principles

The Steering Committee has decided that problem and practice based learning needs to be a feature of the new program. Although the pedagogical direction for the course is likely to be cross-disciplinary rather than trans or interdisciplinary, with students building on existing professional skills by complementing them with learnings from other specialist areas, the core subjects would be interdisciplinary and would be completely new offerings.

Delivery mode is expected to be very flexible in line with student need and to have opportunity for students to work independently or in teams depending on the preferences of students and what they can reasonably achieve given work commitments. A/P Benn and R. Perey from UTS FoB have progressed trialling this latter mode of independent team-based learning in a work-based based context through collaboration with our industry partners Fuji Xerox and IAG. Requests have been made to the PVCs by the Steering Committee that staff development be provided to ensure all staff teaching on the degree are competent in any specialist teaching approaches such as PBL. It is useful to reflect on the effect of recent statements from UNESCO and IUCN on changing priorities in EfS as noted by NSW Environmental Education Plan (2007, p. 11) as noted in Table 3.

Table 3: Changing priorities in EfS

Focus	Earlier approach	Emergent approach
Problem	Pollution	Causes of unsustainable resource use
Solution	Environmental protection and conservation	Collaborative solutions for sustainable development
Connectedness	Humans separate from	Humans part of ecosystems

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	ecosystems	
Goals	Individual awareness, knowledge and behaviour	Sustainable lifestyle and societies
Methods	Predominately information-based	Participatory and experimental, community development and capacity building
Time and scale	Short-term, local and national	Long term systemic
Learners	Audience and target groups	Participants, stakeholders and partners
Implementation	Mainly top and bottom	Through partnerships and networks
Legitimacy	Technical and scientific expertise	Multiple perspectives – based on different ways of seeing, knowing and doing

It is also useful to reflect on how these changing priorities could be demonstrated in their impact on subjects from FoB as our contribution to the degree and how they are reflected in the decisions made so far by the Steering Committee. In our view, the Steering Committee and the consultative workshops have demonstrated high levels of awareness of the emergent approach.

Evidence of sustained change in this direction according to EfS principles is shown in the following decisions by the Steering Committee that all (newly created) subjects will:

- Address communication theory, practice and skills explicitly as it relates to the topic
- Include local and international case studies
- Include involvement in different types of decision making processes
- Have an ethical (eg. explicitly deal with moral dilemmas) and reflective component
- Invite personal reflection on the process of learning as part of the assessment process
- Encourage students to build linkages between this subject and others (particularly for the supporting subjects to link to the PBL subject/project and provide focus and space for this)
- Address the graduate attributes through the assessment processes
- Include peer assessment processes

Other recommendations:

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- The final course structure should have a student selected ‘real world’ project which forms the basis of the subject (along with classroom based supporting information)
- The course should also have other subjects that have problems selected by the teacher for groups to work on – team based problem solving research
- ‘Reflexive practice and ethical foundations’ should be mandatory and ideally be offered in first semester (subject to the number of other subjects also offered in first semester as compulsory)
- ‘Systems thinking, systems inquiry and systems practice’ are key elements of managing complexity and should be considered as a mandatory subject, but also incorporated across the curriculum, understood as a way of orchestrating change

Barriers to change reflecting endemic political tensions and structural characteristics common to many Australian universities have slowed the process of implementing this approach in curriculum. Our research indicates that an organisational background of experiences and traditions whereby various actors have made sense of cross-disciplinary courses and the challenges with mounting such courses is another source of resistance (Ford, Ford and D’Amelio 2008). We believe, however, that this resistance will be overcome by the pressure from industry for cross-disciplinary and specialized sustainability skills combined with the high levels of faculty awareness of the emergent EfS discourse. But as change agents, we also recognise that we need to make more deliberate attempts to understand the sensemaking underpinning apparent resistance. On reflection, it is important for us as change agents, to take the advice of Ford et al (2008) and engage more directly with the background sensemaking that is the source of resistance at UTS.

Re outcome 2. Improved learning processes within UTS for establishing a cross-disciplinary MBA program in sustainability and widely disseminated

Re outcome 2a Faculty engaged in participatory decision-making processes re curriculum selection, ownership of curriculum etc

We are of the view that the process has been open and largely consultative. A series of participative workshops, open to all faculty and advertised across UTS, enabled us to identify key disciplinary areas that have a sustainability focus at UTS and the staff likely to support the initiative. We also sought staff from all levels as important to the longterm success of the degree. Workshops were facilitated by staff skilled in this area. Working groups at each workshop developed curriculum and teaching strategy suggestions.

Activities included envisioning the workplace and role suited to graduates from the degree, revealing wide differences between the different Faculty areas. This raised the key question, debated by ourselves in the workshops, of how cross-disciplinary should the degree be in order for graduate to develop functional market-ready skills, in line with UTS objectives.

Participants of the workshops, typically included around 30 faculty from across five Faculties, two research institutes and teaching support specialists, also reflected on the Open University pedagogical model

- Ground concepts and action as much as possible in students experience
- Learn from case studies of system failure
- Develop diagramming (and other modelling) skills as a means of teaching students to engage with complex situations
- Model in writing the teachers' own epistemological experience (ie practice what you preach)
- Recognise that learning involves and interplay between our emotional and rational selves
- Develop skills in iterating
- Introduce other systems concepts and tools
- Develop skills for critical reflection on practice

The faculty members engaged in the workshops expressed a number of concerns and fears that we feel would apply in general to the challenges faced by universities in the development of such degrees. Firstly, new ways of teaching are needed, including practice and problem-based trans or interdisciplinary teaching for the core subjects. Most staff will not be familiar with these teaching modes and will need support. Secondly, staff need a clear understanding of the core concept of the degree – is it to be environmental sustainability, environmental studies or sustainability? Overall, the key expectations most generally expressed are that it should be holistic and should address a market niche.

Re Outcome 3: Corporations moving from awareness to implementing improved corporate policies and practices

Re outcome 3a: Moving from awareness to implementing improved corporate policies and practices within partner orgs by participating in curriculum development

We see the difficulty that can be encountered when staff in partner organizations leave or when the roles are simply eliminated.

As a result of consulting FoB Assoc Dean Teaching and Learning, Tracy Taylor, on this issue, A/ P Benn has joined a Wiki Working Group aiming to link student work practices with sustainability subjects. The list of suggested activities below was developed from the mini workshop conducted with our industry partners. To us, the key learning was that the industry partner sustainability managers have much to teach academics. Our role could be to assist them in change management techniques in order to increase their influence within their own organizations. The increasingly recognised role of employee expectations in generating change for sustainability highlights the importance of

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introducing sustainability across the undergraduate curriculum. If all new graduate employees have been exposed to EfS the organization as a whole will be more likely to implement the sustainability policies.

Re outcome 3b: Improved capacity for sustainability within UTS and the partner organizations

In line with the principles of action research that all participants are researchers (Bradbury and Reason 2008), we have also looked to the effect of student experiences in our courses as a way of driving change within organizations. From an interview with the lecturer on our MBA subject, Managing for Sustainability, we gained the following insights on this source of influence.

According to this lecturer, students often don't initially understand the relevance of sustainability to their workplace but this is modified as the subject progresses. Providing students with a range of strategies helps them realize they can do things they have not tried before. The things that really got them interested in this subject were the principles of natural capitalism and biomimicry. They then started to think about things that were already happening in their own workplace. For example, one student works for a council which had set up a system to get methane from putrescible waste and could describe that in detail to the class as an example of natural capitalism.

The students were also taken by the fact that structural changes could be so important. For example, the Tom's of Maine case where decision-making structures are such that everyone contributes but one person makes the decision. Mattel was another case where poorly defined reporting lines negatively influenced CSR performance – the students could identify with a situation where information got into the wrong hands.

Getting students to actively research and voice their experiences in their own organization revealed some interesting cases of impact. For example, one student doing the subject related the example of his own workplace initiative as an employee in a large food industry company. He made an appointment to see the CEO, and although he had never heard anybody in the organization talk about CSR before, the CEO knew what he was talking about, asked for his ideas and subsequently has put him in charge of the CSR change program. The student presented his well-thought out plan to the class. It included initiatives such as suppliers delivering once per day instead of 6 times per day. 5 bin systems for waste, and at the core a sophisticated inventory system based on monitoring and reporting.

The reflection for us was to turn the class talk away from technical terms of leadership, change, strategic proactivity etc and move it towards the everyday workplace, where there may never be a sustainability manager per se, but dispersed responsibility across general management roles.

Re outcome 4: New and stronger partnerships among corporations and business schools to build engagement and capacity

Re outcome 4a: Stronger partnerships with IAG, Fuji Xerox and Coca Cola through a mutual learning environment

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Work-based learning activities developed with the industry partners at the mini-workshop are listed below. These activities are to be shared with other colleagues from three UTS faculties in the web-based learning project. In working with our industry partners in developing these activities, we reflected that while UTS promotes itself as delivering work-ready graduates, in fact it is still industry that needs to direct us in what that means. This is too often forgotten in those business schools with a strong tendency to emphasise highly theoretical research areas. The tension between research and workplace-relevant teaching is more evident in business schools than in other aspects of the university, with many business schools having a culture divided into two camps: applied business subjects such as operations management in one and highly theoretical organization studies specialists in another.

Suggested work-based activities include:

From Fuji Xerox Pty Ltd

- Application of GRI guidelines to case study organisation and selection of indicators based on material sustainability issues facing the organisation
- Assessment of different report assurance methodologies
- Application of London Benchmarking Group community investment benchmarking to Australian CSR programs and ranking them accordingly
- Review of LCA method and assessment of design for the environment / extended producer responsibility schemes in the ICT sector (this would help with benchmarking)
- Design a staff engagement in sustainability program for case study organisation aligned with their priority sustainability objectives (TEC have a champion program you could critique)

From IAG Pty Ltd

- What makes for a high quality sustainability/CSR report ?
- How would you define materiality in the context of a sustainability report ? Perhaps apply your definition to a specific company ?
- What are the essential criteria for a successful CSR strategy ?
- What issues should a company consider in compiling a community investment strategy?
- How might CSR influence product development for a company like Unilever ?
- What might an 'ethical' procurement strategy look like ?
- What criteria might you use to assess a particular supplier relationship ?

Other suggestions:

What elements of a take-back scheme constitute best practice?

Industry benchmarking for sustainability achievements

Diagnostic assessment of organizational environmental or social performance

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Mapping organizations onto GRI guidelines.

What does sustainability mean for SMEs?

Re outcome 5. A Community of Practice involving participating corporations and business schools, which generates and shares knowledge and experience

Re outcome 5a: Ongoing CoP which generates and shares knowledge and experience

A/ P Benn has put the case to the Steering Committee and to the PVC that UTS has a unique combination of specialist research and teaching areas that should enable the university to generate a highly active and broad-based community of practice. The key to this is the strong position of business teaching and research which sits alongside more technical and humanities based specialist areas. Sustainability features in research areas such as organisational governance, change and leadership for organisational sustainability and corporate social responsibility, with more recent research interest in the processes of ecological modernisation as they are playing out in The Peoples Republic of China. The Faculty of Business has a strong international focus and delivers a Bachelor of Business in Shanghai with 200 students per semester. In that degree, Sustainable Enterprise is a Management core subject and the first undergraduate subject (as far as we know) concerned with sustainability in a business degree in China. Business is seeking to develop stronger research/postgraduate teaching links with Shanghai University, this could be achieved through a New Options program. Well developed research projects also exist in the Faculty of Business for example ARC Discovery and Linkage grants (eg with NSW Department of Environment and Climate Change and with Westpac) that focus on environmental sustainability and CSR, as well as other projects and the Sustainable Business Forums funded by DECC. There is also research currently being conducted in several Research Centres in the Faculty of Business.

We hope the process of consultation across UTS concerning the development of the proposed new degree has promoted the importance of business in the sustainability agenda in a more positive way to other disciplinary areas. Some indication of this was a recent request by a faculty member from Faculty of Humanities asking for staff from Business to assist in development and teaching of their subject, *Learning and Change for Sustainability*. We perceive this as a very positive outcome from this action research project. As we have noted, many such academics have been very cynical about business faculty involvement in sustainability teaching. Hopefully, acting in the other direction, the successful implementation of a degree popular with students and with teaching staff will also reduce resistance and raise awareness within the FoB.

Reflections

1. EfS recognises the interconnection between diverse aspects of environmental problems. This has been highlighted by this case study, with the underlying issues in the barriers to implementing the cross-disciplinary degree emerging as the organisational structure at UTS and the need for business schools to survive in a highly competitive environment, dictated by wider government policy of economic liberalism. Barriers of communication, lines of responsibility and systems of reward separate the silos at UTS, as in general in the higher education sector. The challenge is to develop both disciplinary and professionally related courses across the silos.
2. The partnerships are not partnerships as defined above (see SSPs description). If we refer to the continuum of coordination, collaboration and networking described above, we can see our partnerships as examples of networking. They are not so well controlled and very much driven by personal contact. It is difficult to embed such relationships more firmly into the organizations and usually just developed by one or two personnel. Even organizations with a strong CSR or sustainability profile only have one or two people responsible for implementing sustainability. The project could probably have been more successful if the partnerships had been developed with industry associations and local councils as they have more staff devoted to the issue and the industry association provides more for institutionalizing EfS. The issue is institutionalizing awareness but leaving room for critical debate.
3. The issue of polarised values/ perceptions/ discourses across the Faculty silos is a barrier to change which could perhaps be lowered in the process of cross-faculty curriculum development.
4. The big question is who is enlightening who in this area. Our industry partners have high levels of knowledge and strong awareness of the interconnectedness of sustainability issues. The question is more of our industry partners leading the business schools. We acknowledge, however that this may be the case because both our partners have well established sustainability programs. As well, UTS has been working with IAG and Fuji Xerox over a long period, including with IAG over a previous ARIES project (ARIES 2).
5. The objectives of ARIES Stage 3 were to address the needs identified in ARIES Stage 2. There is a continuation from ARIES 2 to ARIES 3 that is important to reflect on. The success of ARIES 2 has facilitated the processes for ARIES 3. They are not the only reasons, but they have provided important evidence contributing to the decision to develop a cross-disciplinary sustainability course at UTS.

ARIES 2 started a formal engagement in the relevance of sustainability to existing courses amongst academics in the School of Management. The results from the limited survey described above shows that this intervention resulted in modest success for EfS/EE.

The negotiation for inclusion of sustainability components into established courses in ARIES 2, mirrored in a small way the political battles that dominated the ARIES 3

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project, what BO identifies as resistance to change when creating radically new value propositions. EfS is now impacting on both teaching and research in FoB. Drawing from material developed in ARIES 2, Research assistant Soochen Low has recently co-authored an article with a member of staff on remanufacturing in the supply chain and she and A/ P Benn have co-authored case research paper based on HP strategic sustainability case analysis. The articles will be presented at conferences and be submitted for publication and will be used as case material in Supply Chain Management and Strategy classes as well.

ARIES 2 and ARIES 3 as projects were in practice phases rather than separate projects. Firstly they were undertaken in a wider context within UTS, the investigation of sustainability, or in corporate level discourse, the greening of UTS. The obvious example here is the change of motto from “Think Act Do” to “Think Green Do” and the signing of Talloires Declaration.

Secondly, there was the rewriting of the Carlton United case study for the core subject for the Organisational Analysis and Design subject that occurred at the beginning of 2008, the commencement of ARIES 3. This rewriting was in response to feedback from course tutors and lecturers about the difficulty of working with a large case for a significant number of students undertaking this course. A key issue was that the case needed to be simplified, shortened, and serve both a sustainability and an organisational design requirement linked to Bolman & Deal’s structural frame. The context of this request involved changes in course coordinators over the period and with new coordinators came variations on how the course and course material needed to be presented. The consequence is that the sustainability topics were viewed as supplementary course materials that could be dropped, therefore to make the change stick, follow up effort was required and this was not part of the ARIES1 project scope. The learning here is that normal change management principles and guidelines need to be built into EfS/EE if a permanent shift is desired.

The final ARIES workshop highlighted the common experience was the political resistance to sustainability coming from within all the business schools (and maybe the universities) represented. From the ARIES position, this would be an opportunity to do research into resistance to change within the learning institutions that have carriage to deliver EfS/EE.

The other interesting presentation to us at the ARIES workshop in May was the principles of setting learning outcomes and redesigning assessment tasks. This is not only relevant to sustainability but to any postgraduate teaching. The emphasis was on peer evaluation by students with light supervision by tutors and lecturers. This approach suits an action learning design that would suit an emerging field better than an established field.

Researcher reflections

Suzanne Benn – personal reflections on the action research project

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I also reflected on the importance of timing if new projects are to be initiated into the strategic planning of FoB. Obviously if I had another time frame I would not have tried to implement the program at the same time as another major initiative in the form of a new Corporate Governance and Sustainability subject in the Executive MBA. This is not only a risk issue – it is also raises problems of availability of personnel resources. It highlighted to me that the action research projects as set out by ARIES are sometimes very difficult to implement within the very short time frame allowed.

Given the few people within the Faculty of Business who can actively take part in sustainability initiatives, I recognise the importance of building on existing successful initiatives. This is why I got involved with the Cross-Faculty Work Ready Initiatives project to establish a Wiki available for wider university and wider public use. We have had feedback from Wiki Project Officer that the activities developed on the suggestion of our industry partners are highly relevant to the following work-ready graduate attributes: Ethical and legal responsibilities in organizations and society (e.g. CSR's influence on product development, or ethical procurement strategies); Ethical decision-making; Global perspectives and cross cultural issues; Community Engagement

I intend to add the activities to this site. The idea is that once activities are claimed by a coordinator of a particular subject then they cannot be used by another subject. While I can see the rationale, it does raise issues of how to demarcate ownership.

It also occurred to me that we would not face ideological biases if we were attempting to get together a cross-university degree, such as a *MBA in Sustainability*. All key players or leaders of the initiative would be from a Business Faculty and understand the range of options that such a course combination can offer to sustainability students.

Robert Perey personal reflections

The final ARIES 3Workshop was my first opportunity to meet all the other members of the project. What I found interesting was the similarity of experiences with change resistance in trying to establish sustainability courses in each of our universities. Given this common experience, and what appeared to be a collective concern on how to address this resistance, I am surprised that this wasn't picked up earlier in the project action research cycles. It seems the collective experience is similar to ours at UTS that we have tried to capture in map (figure 1). I think that further stages of this project would benefit from discussing and working through options for dealing with such change resistance to EfS. It was interesting to observe that we all were at different stages in our projects and had different approaches to running them internally.

This then lead me to think about AR/AL approaches and whether one of the newer evolutions of AR/AL should be tested in future ARIES projects. I think AR is powerful and relevant, however, the original, and most commonly used, model has been further developed into more sophisticated yet simpler AR approaches such as Soft Systems Methodology (SSM) (Checkland 2000) and Appreciative Inquiry (AI) (Cooperrider 1987) that have extended the classic Lewinian cycles. I think both SSM and AI have advantages over the commonly used approaches to AR for a project with the complexity of ARIES, and could be explored for future application. AI for example uses a strengths

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based approach that breaks with our normative deficits practices and SSM encourages paradigmatic thinking, again an essential expectation of EfS/EE; these may be more acceptable processes for dealing with the internal organisational politics that seem to be part of all the participant's experience.

Jan Orrel's presentation on education principles and standards was interesting and useful for subjects underway or just about to be launched. Her subject matter assumed that subjects were institutionalised and therefore had common boundaries, rules, and guidelines to follow. This is not true for sustainability because it is an emerging area with only fuzzy agreement about details. This fuzzy agreement was visible in the conversations around the table; everyone had differing positions stemming from differing worldviews on sustainability. No criticism about this just that a lot of Jan Orrel's suggestions are not appropriate in my view at this stage of sustainability; it is premature except for specific instances within existing subjects, for example, environmental management.

The other part of Jan Orrel's talk was about efficiency in the management of classes and delivery, essentially being able to handle more students with fewer teachers and lessening the workload of assessment. There are potentially ideas here that could be used in a Blue Oceans strategy for designing new value propositions for EfS/EE. Jan Orrel's personal passion for efficiency seems to sit within the quality/reengineering mindset, of handling greater numbers of students with less numbers of teachers.

Final thoughts, maybe, on the meeting was on a suggestion put forward on how to give voice to the various stakeholders involved in the development of sustainability courses. Interesting problem and my thoughts on this keep returning to developing a 'play' in which the major actors each have a constructed dialogue that demonstrates the emotional and the rational of the multiple positions. Think of it as the Sustainability 'Blue Hills'. This would work and better capture the issues and dilemmas that would go missing from an objective 3rd person report.

If done well, this sustainability 'Blue Hills' could also be used as an instrument of change, in a similar way to the techniques used by Playback Theatre. This, constructing a narrative from interview conversations, is the approach we took for the Landcare Paper (this will be presented at the AoM 2008 conference in August).

The meeting with the industry partners reaffirmed that they too have similar political problems to UTS, but they are at least committed to some internal change for sustainability. Their major immediate concern was on materiality for GRI reporting, in particular defining what materiality was/is. This is problematic for them and they would like help here. They were also open to having students involved on their internal projects

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as they did need extra hands and they also wanted to train up a larger pool of committed sustainability people. The difficulty will be designing the type of project that meets the requirements of UTS and the business. Part of the negotiation is the need to define what the business gets out of the relationship in direct material support and what the university gets out of this in terms of improved educational outcomes and larger course numbers.

Summary of our reflections

The concept map (Figure 1) was created during the May ARIES workshop, as part of the reflection process. It captures the dynamics of the UTS experience that is described by three broad patterns of activity, industry partner interaction with UTS; sustainability initiatives within UTS, and inter-Faculty politics.

Sustainability practice as it is occurring in industry leaders appears to be ahead of academic interest, practice and awareness. It is not an uncommon experience for organizations to be posing questions and problems on sustainability implementation that have not caught the attention of organisational theorists, for example questions on how to define materiality when implementing the GRI. The question we raise is to what extent sustainability is redefining the boundaries of organizations? How interdependent are organizations such as corporations and business schools in terms of their knowledge development and transfer? How may their interactions be mapped for practical day to day purposes?

This links to the important consideration of what sort of models can be developed and operated that allow students to work in businesses and businesses to gain access to academic work in the evolution of sustainability processes. Who in this situation owns the relationship? Should it come through the Faculty of Business or would it be equally effective if it came through Faculty of Humanities? This is a major debate in the design of the new sustainability course.

Another factor is that power dynamics can shift very quickly in the university context. At the time of writing this Report it appears uncertain as to whether FoB, the Faculty at UTS best suited to provide this interface to the corporate world, can maintain its momentum as a sustainability leader, given moves to place ownership of a cross-Faculty Masters program in another Faculty. There are a number of sustainability initiatives underway within UTS, some are well known, such as at ISF, sustainability within the School of Management, new sustainability programs across the campus, and specialist groups tucked away in various nooks and crannies. Into this mix comes the cross-disciplinary sustainability project that is the focus of this ARIES project. The question here is how to bring these diverse streams together, and what part they should play in the interdisciplinary sustainability course. A key problem is that ISF has a sole focus on research projects and does not have a teaching brief so really could not manage the new degree.

Finally, we note that RO has been maintained as the preferred approach to developing the interdisciplinary sustainability course.

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As this is an action research project, designed to prompt reflection, critique and change we also include some comments by Assoc Dean of Teaching and Learning at UTS, Prof Tracy Taylor. In these comments she sets out her view on why the interdisciplinary Masters degree at UTS did not succeed in gaining momentum.

From my perspective the lack of a program champion was the first critical point in the decision making (ie not having someone who would put up their hand and take the lead and coordinate the program), secondly, the fact that we are stretched to staff our current teaching commitments the question was how we could add to the current teaching load without completely burning out our staff (ie what would go so that this initiative could run), and thirdly was the fact that in the most likely home - (XXX) are stretched and would not be able to take on additional commitments.. at the end we had to ask ourselves why set up a program to fail?⁵

Conclusions and future directions

Our project indicates a number of challenges that have delayed decision-making about the way forward for a cross-disciplinary degree:

- Dissent concerning branding of the degree – ‘environmental sustainability’ or ‘sustainability’. The authors of this Report have argued strongly for a Masters of Sustainability which would more logically include the Business areas of CSR and Corporate Governance. We noted a lack of shared understanding of the meaning of corporate sustainability across other disciplinary areas at UTS and some suspicion that business might be coopting the sustainability concept in the name of corporate high performance and survival, rather than the integrated perspective incorporating social and environmental as well as economic concerns . The problem is one of sensemaking – the inter-subjective process of developing meaningful action from ambiguity (Weick 1993). The ambiguous and highly contested meaning of sustainability has been a real barrier to progress in the development of a shared curriculum.
- The onus for support of new subjects and the motivation for teaching staff to participate in teaching and learning upskilling programs necessary for appropriate pedagogy such as innovative forms of experiential or work-based learning
- The need for leadership within various disciplinary areas if these areas are to fully engage with such change programs
- The possible building of an undergraduate program with similar objectives
- International student market potential and uncertainty surrounding demand.

Potential areas for further debate and difficult decision-making include the various approaches to work based and practice-based learning. In that light, A/ P Benn has made

⁵ Email received from Prof Tracy Taylor,

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a submission for a UTS Teaching grant to research these approaches with the assistance of our industry partners. See Appendix A

The short term aim of ARIES to establish networking opportunities across the business schools is ongoing with a further ARC Linkage project recently submitted by ourselves with ARIES MGSM colleagues.

The long term aim of progress towards the development of a leading edge MBA course *about* and *for* sustainability that could potentially be delivered through a number of centres of excellence throughout Australia is still far off, although the difficulties associated with getting the Masters of Sustainable Business up and running at UTS indicates that a combined approach across the Business Schools may be the only option available. Similar issues of student demand, ownership of sustainability within disciplinary areas and other challenges are likely to be faced by other higher education institutions.

Overall, our project highlights the different worlds that sustainability represents across the university and how little linkage there is between the areas. Perhaps interdisciplinarity is not the answer and it is better to keep to some degree of multi-disciplinarity. Integration may not be wholly appropriate and we need to retain a considerable amount of specialization. We see very few jobs where sustainability is not taken up with a high degree of professional specialisation. This raises the important question of does the university change the workplace or does the workplace change the university?

We can share also learnings from the partnership development aspect of the project:

- industry leaders such as IAG and Fuji Xerox are well ahead of many academics in terms of applied understandings of sustainable business. We suggest that St James Ethics Centre should be canvassed as another partner to form a Roundtable to guide future direction of the degree.
- different industry partners representing different stages of sustainability in a range of sectors could be grouped in a roundtable for ongoing involvement in course design and assessment, linking to a community of practice around change for sustainability.

We have also reflected on the usefulness of UTS Sustainable Business Forums as a link to a community of practice and more formalized connections with teaching and learning in business schools and across the campus. .

In reflecting on our processes to establish the degree, we recommend that models of participatory decision-making and change management should include:

1. Capacity to consider such curriculum as a social innovation that goes beyond the constraints of existing models.
2. Invited participation in a cross-campus preliminary workshop via wide email advertising to generate awareness and ensure groundswell of support around an envisioned future curriculum option.
3. Voluntary faculty participation in a research team supported by the university, directed by a cross-faculty Steering Committee that has responsibility and is given resources to

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develop market research, research possible delivery and models, canvas possible faculty management for the degree – all with ongoing participative support from interested faculty.

4. Appropriate processes established in order to identify specific teaching and research strengths and to reflect these in the degree.
5. Capacity to recommend on administrative support for the implementation and maintenance of the degree so that its success is not reliant on the goodwill of committed individuals.
6. Willingness to actively engage with the sensemaking of change recipients such as Faculty management so as to develop a shared understanding of the value of sustainable business and of cross-disciplinary and interdisciplinary course offerings.

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