



Integral Applications: Précis of Integral Sustainability Case Studies

By Will Varey (Principal)

Introduction

The abstracts of the case studies below are short summary statements of Integral Applications completed between September 2003 and September 2007. They follow a similar format and describe, using a quadrivium analysis: the intention of the integral intervention in terms of the sustainability problem identified and the ultimate benefit desired (I), the objective parameters of the situational context (IT), the form of collective intervention enacted within the social holon (WE); and the systemic changes and artefacts that ultimately resulted (ITS). It is hoped that these may be of use (or inspiration) to other practitioners engaging in similar Integral sustainability projects elsewhere in the world.

Overview

- A. Case Study: Integral Organisational Sustainability Strategy
- B. Case Study: Statewide Waste Management Strategy Reform
- C. Case Study: Domestic Violence Programs in Indigenous Communities
- D. Case Study: Global Climate Change Infrastructure Planning
- E. Case Study: Children's Therapy Services Development Planning
- F. Case Study: Water Policy Framework Stakeholder Consultation
- G. Case Study: Water Reform Community Consultation
- H. Case Study: Sustainability Consciousness Assessment
- I. Case Study: Corporate Sustainability Policy Alignment
- J. Case Study: Sustainability Infrastructure Planning Process
- K. Case Study: Integrated Integral Sustainability Impacts Assessment
- L. Case Study: Personal Sustainability Definition Intervention Process
- M. Case Study: Integrating Integral Sustainability Principles
- N. Case Study: Sustainability Scenarios Decision Making Simulation
- O. Case Study: Sustainability Water Resource Management Modelling
- P. Case Study: Strategic Energy Partnerships and Sustainable Alliances
- Q. Case Study: Advanced Integral Organisational Sustainability Short Course
- R. Case Study: Sustainability Strategy Causal Loop Analysis in Levels

- S. Case Study: Sustainability Indicators for Mitigation of Corporate Footprint
- T. Case Study: Integrally-Informed Sustainable City Indicators
- U. Case Study: Indigenous Offenders Rehabilitation Program
- V. Case Study: Integral Urban Water Recycling Strategy Formulation
- W. Case Study: Integral Sustainability Communication Master Class
- X. Case Study: Integral Masters Course in Societal Transformation
- Y. Case Study: Integral Sustainability Critical Systems Thinking Masterclass
- Z. Case Study: Development of Integral Emergent Disability Services Model

The Applications

A. Case Study: Integral Organisational Sustainability Strategy.

AQAL: All Quadrants; 4 Levels

The complexity of an organisation's sustainability concerns prompted the intentional goal of developing an Integral Organisational Sustainability Strategy. The organisation at that time had a broad range of sustainability programs operating at different levels of complexity with varying degrees of organisational integration. As a result, there were differing degrees of success in the sustainability initiatives being promoted and inconsistency in the organisation-wide enactment of sustainability. The main objective of developing a comprehensive three-year Integral sustainability strategy was to provide a consistent basis for the strategically significant sustainability programs, from which the development of essential sustainability competencies could then be built for the future. This would enable the organisation to meet foreseen and impending sustainability challenges when they arrived. The internal sustainability team firstly undertook an AQAL audit of the existing sustainability initiatives. This involved an analysis of the effectiveness of existing sustainability programs across four Levels of consciousness, within four major Lines of inquiry (i.e. economic, environmental, social and ethical) to examine the degree of integration of the sustainability practices in existing programs in all four Quadrants (i.e. 112 sustainability domains). Looking to enhance the present center of gravity of the dominant consciousness Level operating in the organisation as the main platform of the Strategy, seventeen sustainability programs were then developed to establish a foundation level of sustainability integration and then to fill the gaps identified by building the sustainability capacity in four Levels of consciousness and all Quadrants. This was done as a series of sequential programs introduced over the following three-year planning cycle. As an example of the Integral shift, while the initial focus of the organisation was on the physical actions of sustainability (e.g. cleaner production, environmental management, waste management and cost efficiency) and the systems for sustainability (e.g. greenhouse gas policies, sustainability assessment processes and TBL cost analysis) this was subsequently expanded to include the development of a culture of sustainability (e.g. sustainability vision, values based consultation and community development) led by an individual leadership desire for sustainability (e.g. sustainability education, sustainability definitions and sustainability principles). The AQAL Sustainability Strategy resulting

from the analysis was then reframed and re-documented to reflect the Amber Level organisational processes at a manageable level of complexity. As a result, the Integral Sustainability Strategy was subsequently endorsed and adopted by the Board of the organisation, demonstrating to its stakeholders a significant commitment to the staged development of a comprehensive sustainability capability. The Sustainability Programs initiated during this time included Sustainable Procurement Processes, Community Education Partnerships, Science and Innovation Research Programs, Impact Assessment Processes, Sustainable Infrastructure Planning, Indigenous Cultural Awareness Programs and the Measurement, Benchmarking and Reporting on Sustainability Goals. The Sustainability Strategy was fully implemented over the following three-years and is presently in the process of being revised for the next three-year period following a similar AQAL analysis of program comprehensiveness and effectiveness. This shift from isolated and fragmented initiatives to a consolidated and endorsed program has allowed the organisation to become, in a very short time, a recognised world-leader in sustainability within its sector. (Reference: Water Corporation Sustainability Strategy 2004-2007).

B. Case Study: Statewide Waste Management Strategy Reform.

AQAL: All Quadrants; All Levels

To fund local level municipal recycling programs, the State government introduced a levy charge on all waste-to-landfill dumping. This, together with other programs, was designed to promote multi-sector recycling and fund the innovations needed to move the community towards a sustainability goal of creating a Zero Waste society by the year 2020. After five years of operation the program had invested many millions of dollars in hundreds of projects, with no net decrease in the levels of waste being sent to landfill. To compound the situation, 50% of all drinking water for most of the 1 million residents in the region came from underground aquifers potentially at risk of future contamination from waste landfill disposal. The waste program's goals, the community's water sources and the society as a whole may potentially become unsustainable in the longer term. The program was put under review and it was discovered that the complexity of waste types, streams, sources and their commingling in the different sectors and levels of regulation in society had paralysed, due to its complexity, the work of the environmental protection agency and the strategic advisory board to the Minister responsible for the success of the strategy. An Integral analysis was undertaken and a whole of program revision was conducted resulting in a strategic development plan for the staged shift in: i) the conceptualisation of waste (Upper Left), ii) the monitoring of key measurable environmental parameters (Upper Right), iii) alignment of industry, economic and other drivers (Lower Right); and iv) identification of prevailing community values (Lower Left) around waste management. Stakeholder engagement was undertaken with community groups, waste entrepreneurs, research bodies, environmental activists, funding bodies, local government leaders, political lobbyists, manufacturers and regulators. A whole of systems approach was used and a strategy developed which visualised the waste landscape conceptually as a 3D predictive meta-map. As part of an all-Levels engagement and communication plan, priorities for waste

management in all sectors were determined and set. The result of this work was the Ministerial endorsement of 5 year rolling strategic plans and the re-instatement of the Waste Management Fund to guide sustainability outcomes with a new strategic focus. The Zero Waste goal by 2020, while still ambitious, is now considered potentially attainable by the agency leading the program. (Reference: Statement of Strategic Direction for Waste Management in Western Australia. (Agency [Website](#))).

C. Case Study: Domestic Violence Programs in Indigenous Communities.

AQAL: All Quadrants; Focus: Magenta Level; 10 lines; 35 types; 3 levels

In response to a major judicial inquiry into domestic and family violence in remote aboriginal communities, the responsible criminal justice agency decided to engage with indigenous welfare officers in all regions of the State to develop culturally responsive programs for the education of offenders. The existence of these programs would enable offenders to obtain conditional release on strict parole conditions, reducing the further impacts of social fragmentation and cultural ostracism arising from their criminal actions. Due to cultural diversity and regional remoteness of the offenders in the programs, standardised culturally generic programs within the prison system had shown limited effect outside of the cultural contexts in which the offences had occurred. These much needed support, counselling and education programs were to be designed by indigenous case workers so as to apply specifically to the particular indigenous communities they worked with. An Integral analysis of the domestic violence problem and its compounding factors was done by the indigenous officers themselves using the AQAL framework. This identified 35 determinate factors in the types and frequency of offences within the four Quadrants (e.g. connection to country (I), seriousness of offence (IT), cultural identity (WE), social support systems (ITS)), used three major levels of span (e.g. offender, victim and family, community), found key stages in eighteen distinct lines of development (e.g. self-awareness, economic dependency, literacy proficiency, substance abuse impairment), for fourteen distinct states in three distinct phases across all the Quadrants (e.g. offender in stability, in crisis, in the post-trauma of the offence) for ten distinct Types of offender and their related offences. On the basis of the AQAL meta-map created, an overview perspective of the complex drivers of domestic violence was then able to be depicted as a dreaming-map of a shared landscape of meaning. Priority program areas were identified as landmarks for the different regional areas based on their unique situations. This meta-map allowed location specific offender rehabilitation programs to be collaboratively prepared by the case-workers using culturally sensitive materials, motifs and techniques which provided the basis for the customisation of unique interventions for this highly complex problem. The Integral approach of seeing the landscape in overview from the multiple perspectives operating resonated with the indigenous participants and provided them with a means to navigate their existing understanding, and to communicate this to the responsible government agencies, for the first time. (Reference: Gordon Inquiry into Family Violence in Aboriginal Communities (2002)).

D. Case Study: Global Climate Change Infrastructure Planning.

AQAL: LR Quadrant; Five Spheres

The government department responsible for urban land-use and infrastructure planning looked to take the lead in the development of a comprehensive response to the local impacts of global climate change and the findings in the Stern Report. A workshop of staff and stakeholders was organised to identify the major issues and likely impacts of climate change regionally. To organise the vast range of actions required by the organisation for all its planning functions (i.e. coastal, regional, industrial, commercial, transport, maritime, etc.) in both the long and short term, the participants were asked to identify the planning impacts of climate change and greenhouse gas management from their respective expert knowledge domains by utilising the principles of holarchy. The physiosphere impacts (to land structures, drainage and coastlines), the biosphere impacts (to landuse, species distribution and plague management), the sociosphere impacts (to urban planning, regional disaster relief and human movement corridors), the econosphere impacts (to import and export sources, of mitigation measures and response costs) and the politiosphere impacts (on social resilience, community cohesion and individual incentive) were each considered in turn as a panarchy of system pressures. Response strategies in these different categories of impacts were identified in the three domains of: i) immediate impact management, ii) climate change adaptation planning and iii) long-term global warming mitigation responses. Using the integral principles of holarchical emergence in levels of relational exchange, the full complexity of a comprehensive strategy for action could then be seen both as a whole, and clearly as to each of its parts, reducing what would ordinarily be an involved and fragmented analysis process into the generation of a clear and manageable framework for a collective response in just a few hours of collaborative inquiry. (Tool: Five Spheres Global Climate Change Response Matrix).

E. Case Study: Children's Therapy Services Development Planning.

AQAL: All Quadrants; Two Levels

The principal service provider for children's therapy services was responsible for meeting the needs of 2500 school aged children each year under government sponsored programs. Over time the number of children with immediate needs in occupational therapy, speech pathology, physiotherapy, clinical psychology and social work support services grew to 3500. These new needs could not be fully met under existing government funding arrangements. To compound the problem of unfunded service delivery, the organisation was also facing a perennially declining funding environment. An impossible tension arose for the therapists in the field in ensuring that every child in need received equal access to funded services and that no child received only a partially complete therapy program due to lack of funding. Using an Integral analysis of the system dynamics in their operating case load levels (Upper Right), their strategic planning for systems change (Lower Right), their corporate values around care giving (Lower Left) and the future vision of the executive team (Upper Left) a Strategic Service Growth Plan was developed. This was done with the involvement of the CEO, Board, managers, therapists, staff and

the wider community to create a conscious shift in the philosophy, culture, systems and services of the organisation towards meeting all the unmet needs. The vision was that the 3500 children assisted each year in early intervention programs would, 20 years in the future, become adults without the disadvantages that the absence of developmental care would have caused, potentially limiting their full participation in and contribution to society. This Integral approach sought to prevent many primary and secondary problems from ever arising by looking holarchically to the place of greatest system leverage at the time when the greatest system benefit could be achieved, reversing the impossible into the Integrally essential. (Reference: Organisation [Website](#)).

F. Case Study: Water Policy Framework Stakeholder Consultation.

AQAL: LR Quadrant; All Levels; All Lines

To inform the development of a Sustainability Water Policy Framework for statewide water resource management, 47 distinct policy directions in six areas were formulated and then issued for public consultation. These covered policies for water use, water resource management, water research and monitoring, ecosystem integrity, security of water supply and the support of vibrant communities. An Integrally-informed consultation process was designed to seek comments on the proposed policy wording. The aim was to prepare a statewide plan for water management incorporating the various value priorities held by all different perspective based interpretations at all Levels of consciousness across the four Quadrants. The structured inquiry process covered a diverse range of topics including: water planning, adaptive management, intergenerational security, indigenous water values, ecological conservation, water quality, water resource accounting, resource investigation, sustainability assessment of source development, water sensitive urban design, water trading and speculation, water services and public health protection. The input gained through the regional consultation process resulted in many changes to the proposed Water Policy Framework organising over 700 unique perspectives voiced on the proposed sustainability policy by the community as a whole into an AQAL compatible framework. One particularly interesting observation from the regional comparisons was the correlation between water resource geology and sustainability psychology in different regions, prompting the conception of the field of social hydro psychology. The resulting Policy Framework now forms the basis for the policy directions in the State Water Plan 2007 and provides the structure for the formulation of all Regional Strategic Water Plans. This framework of multiple perspectives now guides the strategic integrated water management planning for an area equivalent to Western Europe in size. (References: Draft Water Policy Framework: Discussion Paper (April 2006), Facilitator's Report on Community Consultation Workshops (July 2006), State Water Plan 2007 - Government of Western Australia).

G. Case Study: Water Reform Community Consultation.

AQAL: LL Quadrant; All Levels

A water reform program was proposed which introduced a statutory management process for the sustainable yield planning from allocated water resources, significantly changing the historically unmonitored water use by irrigators and other rural water users. A community consultation program was designed using an Integral Consultation Circumplex, which identified the alignment of twelve distinct types of community consultation processes and their outcomes within the four Quadrants. AQAL-designed workshops were then run in 25 regional locations, recording stakeholder input on six major strategic questions that were seen as the main barriers to implementation of these essential sustainability reforms. Almost 2000 quantitative inputs and 2264 qualitative perspectives from 372 participants across 17 regions were collected. The resulting analysis was used to then inform over 100 water reform recommendations. These reforms have now progressed to the parliamentary drafting stage to modernize a century old system of water management that was no longer sustainable in contemporary environmental conditions. The integrally-informed process enabled the existing community values (Lower Left) to be respected and integrated into the proposed policy reforms (Lower Right) to promote a co-evolutionary staged transition for Statewide water resource sustainability. Usually similar policy reforms would be met with strong stakeholder opposition preventing any progress in a politically sensitive climate. In this case, the seemingly inevitable opposition was reversed by Integral consultation processes to actively create strong stakeholder support for the enactment and implementation of sustainable change. (References: Draft Blueprint for Water Reform in Western Australia (July 2006), Facilitator's Report to the Water Reform Implementation Committee (November 2006), Government Response to A Blueprint for Water Reform in Western Australia (February 2007)).

H. Case Study: Sustainability Consciousness Assessment.

AQAL: UR Quadrant; Single Line

In developing an all-Levels program for sustainability within an organisation, an implementation barrier was reached when the level of complexity of the sustainability programs proposed did not match with the levels of consciousness of the executive managers responsible for the implementation of those programs. Where program aims were not understood, the implementation goals were not attained. To match sustainability program goals to the understanding of the managers enacting them would generally require an accurate assessment of the levels of consciousness of those individuals. A subjective assessment of the level of consciousness of another using simple characterology models is notoriously difficult and can be subject to many significant category errors. Attempts to simplify complex sustainability messages for different Levels can misconstrue the actual complexity ultimately required for success. Instead of enabling individual-specific reception, levels-languaged translations of sustainability goals may be perceived as veiled deceptions. To resolve this dilemma a more rigorous assessment of individual cognitive capacity is needed when dealing with key decision makers. This would ordinarily rely on the willingness on the part of those decision makers to undertake comprehensive values surveys and ego-development tests. This is not always easy

where the underlying rationale for the inquiry and the sustainability program itself is not at all clear. To inform the more skilful matching of the complexity of a program to the capacity of its eventual proponent, a process was designed to gain an 'indicative' assessment of the consciousness structures operating within the senior executive management group of an organisation. A short sustainability values recognition test was designed and openly incorporated into strategic sustainability discussions. The test drew on the methodology of tachistoscopic response testing, relying on a presumption that different levels of consciousness will recognise resonant value-laden statements with greater speed than statements associated with dissonant or not yet operationalized levels of consciousness. A powerpoint matrix chart with thirty randomised value specific sustainability terms (e.g. spirit, heritage, compliance, biodiversity, control, integration, holism, universality, tradition, etc.) using at least three trigger phrases for each level of consciousness was prepared. This was firstly trialled for accuracy with test participants of known levels of consciousness. The matrix of trigger phrases was then shown for ten seconds to twenty executive managers who were asked to write down the three words that resonated with 'what sustainability means to them'. Participants reported seeing only a few of the thirty word phrases 'which leapt out at them'. The results of all the responses were tabulated and shown to the whole group to indicate a map of the range of conceptions of sustainability potentially present within the executive team and also to identify which resonant terms were dominant within the group. In using this method, a short ten-second indication of the span of levels and center of gravity of the executive group was obtained. This open and transparent process identified the potential structures of consciousness operating which could then be explored further by inquiry of the group and the executive members individually, with the initial indications of the levels of consciousness later being verified and refined through one on one interviews. This allowed the organisation's executive managers perspectives to be more appropriately matched to the sustainability programs they would lead. The result was the executive managers were more readily engaged when the desired outcomes of the sustainability programs were resonant with their own Levels-based values structures, with the added benefit that the program goals could be communicated to them as individuals in meaningful and appropriate ways. (Tool: Sustainability Consciousness Indicator Matrix).

I. Case Study: Corporate Sustainability Policy Alignment.

AQAL: All Quadrants; Multiple Levels

While undertaking an organisation-wide sustainability change management program a clear sequence of natural development was seen to occur across the four Quadrants. Initially, key sustainability concepts were conceptualised and embraced as the new corporate philosophy by individuals (Upper Left). This led to a process of tetra-evolutionary alignment where the collective interpretation of sustainability principles (Lower Left), the adoption of new corporate procedures and systems (Lower Right) and the measurement of actual changes in physical resource allocations and impacts within the organisation (Upper Right) followed in a sequence. These phases seem to follow Kolb's learning cycle at a social systems level.

The exit from each phase could be seen in the spontaneous requests for information applicable to the next phase. To make explicit this process of tetra-evolutionary change in the management of a range of multi-level sustainability programs, and to audit the Integral completeness of the strategy as it was being enacted, an AQAL Sustainability 4Q Alignment Matrix tool was developed. The tool identified the evolution of sustainability philosophy, principles, processes and practices in four Levels of consciousness. This heuristic device was used to allow program managers to identify where they felt they were presently and to self-identify the next phase of changes required in an informed way. This allowed the team leading the programs of change to align change management strategies for sustainability at multiple levels of sustainability sophistication for multiple initiatives at the same time. The resultant changes required next in policy formulation, governance procedures and operational practices for each level of sustainability consciousness operating could then be determined for each program. Recognising this differences in the phases of tetra-evolutionary development allowed the internal team to guide the appropriate emphasis in response to the evolutionary progress of change in All-Levels for All-Quadrants simultaneously. (Tool: Sustainability Quadrants and Levels Alignment Matrix).

J. Case Study: Sustainability Infrastructure Planning Process.

AQAL: Four Quadrants; Two Levels

The engineering and infrastructure planning functions of a \$600 million per annum capital works program for water and waste-water treatment had become increasingly difficult to manage due the increasing level of sustainability conflicts. This was primarily due to the difficulties in gaining environmental impact approvals and the opposition to programs by the community based on social values threatened by the perceived impacts of infrastructure development. In a seemingly unfair irony, the sustainability values of society were potentially impacting on the long-term sustainable delivery of essential services, potentially affecting the sustainability of that society. A shift in the level of sustainability consciousness and competencies of the planning function was required in order to maintain the operating division's present 'best practice' standards in the management of health and technical compliance, while also addressing a newly emerging diversity of sustainability concerns (i.e. species habitat protection, odour and noise emissions). After an initial external consultancy program encountered significant barriers in the implementation of sustainability processes within the traditional structures of the planning function, a more acceptable internal inquiry in the form of an 'integral sustainability audit' was designed. This AQAL informed structured review identified eleven sequential stages flowing across all the Quadrants that would define an integrated sustainable planning process. This included; the assessment of physical needs (Upper Right), the desired sustainable outcome (Upper Left), the community values operating (Lower Left); and systems of governance and political decision making required (Lower Right). The self-audit process asked for evidence of the integration of each component of the sustainability process, also in four Quadrants, examining the intention of the process (I), its integration into internal work manuals (ITS), the tacit

cultural rules operating (WE) and the practical effectiveness of the systems tools being presently used (IT). This identified the gaps in specific components of the existing planning process and the changes required to deliver sustainable outcomes at the next level of sustainability consciousness and complexity. Decisions on the level of change required was guided by a Sustainability Self-Rater Tool developed specifically for that purpose. Support for change was created by the development of sustainability training programs and specific tools appropriate to the level of sustainability consciousness which the complexity of the planning functions now required. This transformed the previously perceived conflicts between sustainability and the traditional planning process into new and complementary 'sustainable planning best practices'. The Integrally-guided open self-managed audit process allowed the planning section of the organisation to discover their own AQAL mapped blind spots in sustainability performance, which then initiated a self-managed process of change, overcoming the barriers encountered by the external consulting assessment previously identified as insurmountable. (Reference: Sustainability Audit Tool, Paper: Varey, W. (2004) Integrated Approaches to Sustainability Assessment: The psychodynamics of integration in eco-socio-economic considerations, Twenty Fourth Annual Meeting and Conference of the International Association for Impact Assessment)

K. Case Study: Integrated Integral Sustainability Impacts Assessment.

AQAL: All Quadrants; All Levels

The governing council of a city of 30,000 people sought to introduce into its management group's core competencies a simple sustainability assessment process for significant projects. As part of an executive management training program, a Sustainability Thinking Tool was designed and an experiential workshop developed to train managers of all levels of sustainability experience to an initial level of proficiency in sustainability planning. The Thinking Tool was designed to specifically address different category errors that commonly occur in undertaking an impact analysis of potential projects based on an integrated sustainability assessment. These category errors were located as arising in each of the four Quadrants, and included such fatal flaws as: misconception of the desired outcome (Upper Left), lack of community engagement (Lower Left), failure to accurately assess and quantify relative impacts (Upper Right) and governance omissions in decision making processes (Lower Right). A list of twenty key considerations, in different Lines and in different Quadrants, was compiled and combined into one Integral Sustainability Assessment Framework Tool. The tool was trialled by using it to assess the sustainability of capital projects proposed by the council managers themselves. The novice managers were then asked to self-assess the sustainability impacts of their own projects as part of the approval process by using the ISA framework and Thinking Tool. The projects covered a wide diversity of operations from urban planning, water management and road maintenance, to the construction of a new cultural arts centre. The results of their assessments revealed how different Levels of consciousness engage different thinking processes in undertaking a

sustainability assessment using the same overall AQAL approach. Each specific bias in Levels of consciousness or Quadrants was seen to give rise to quite different category errors. Based on the different complexities of the sustainability considerations operating different blind spots in the individual assessments were revealed. An Integrally-informed Sustainability Omissions Matrix was designed to make transparent the various forms of Quadrant and Level bias potentially present in all forms of individual integrated sustainability assessment approaches. These category errors could then be identified at prior to the decision making stage and mitigations consciously incorporated into the final project design from an Integral meta-perspective. This allowed the city to not only introduce Integral-level sustainability impacts assessment into its proposal process, but also to transparently meta-reflect on and assess the natural omissions and category errors in their thinking when the process was operationalized at different Levels of consciousness. This allowed the city to see its sustainability impacts more clearly while also seeing itself in its implementation of those concepts and outcomes. (Tool: ISA Thinking Tool and Analysis Matrix. Reference: Varey, W. (2004) [Integrated Approaches to Sustainability Assessment](#): An Alignment of Ends and Means: Presentation to the Twenty Fourth Annual Meeting and Conference of the International Association for Impact Assessment (IAIA) (April 2004)).

L. Case Study: Personal Sustainability Definition Intervention Process.

AQAL: UL Quadrant

A significant barrier often experienced in engaging people directly in sustainability conversations and concepts can be their initial feeling of ambiguity as to what the term 'sustainability' actually means. Often attempts at imposing generic sustainability definitions or expansive sustainability values will trigger a defensive reaction from those individuals who we most need to be involved in sustainability change. Conversations designed to develop a shared sustainability culture (Lower Left) can fail when the full diversity of individual conceptions of sustainability (Upper Left) that are present within the group are not honoured. By collecting together over 100 unique definitions of organisational sustainability, the respect needed for the full diversity of individual interpretations and the inherent ambiguity within them is easily illustrated. To enable active engagement with sustainability as a concept in support of a sustainability strategy, a workshop was designed to enable executive managers to develop their own 'personal' definition of sustainability. This was seen as an important step in gaining individual involvement and commitment to sustainability program planning. To facilitate this (Upper Left) insight a very simple exercise was used with the executive management group, asking them on an individual basis three questions using an integrally-informed embodied workshop process, which allowed them to self-map the parameters of their conceptualisation of sustainability. The questions asked were: 1. 'What do you want to sustain?' (IT - identifiable externalised sustainability values), 2. 'For Whom?' (WE- internalised span of care); and 'For How long?' (I - personal temporal conception of future timeframes). By doing this the individuals were each able to select a frame of sustainability responsibility that resonated with them personally removing the threat from

projected values outside of their own resonant span of care. This allowed the individual leaders in the organisation to own their own individual contributions to sustainability and to see these as operating within the wider sustainability responsibilities of the organisation as a whole (which had its own wider sustainability definition) within society. This nested holarchy approach resolved for the executive group the dilemma of whether to follow their own values or those of the organisation in their enactment of sustainability, the resolution discovered being that they could now hold both. The familiar 'overwhelm' that can accompany sustainability education programs that do not respect different Levels and capacities of consciousness was reversed in this case, from a disempowering defeating dynamic, to a personally supporting learning experience enrolling a more widespread engagement in the sustainability programs at the senior executive level. (Tool: Sustainability Definition Worksheet, Research Paper: Varey, W. (2005), [Defining Sustainability: An Integral Triptych](#), Collection: [100 Definitions](#)).

M. Case Study: Integrating Integral Sustainability Principles.

AQAL: All Quadrants; All Levels; Four Quadrants; Six Lines; 3 Stages

The organisational sustainability change program for a government owned corporate utility operating \$10 billion of infrastructure created the commitment needed to put the philosophy of sustainability into practice. However, a need was identified for a bridging mechanism to assist in the translation of sustainability from the boardroom to the worksite across the organisation's operations. An Integrally-informed set of sustainability principles was developed to guide the translation of the overall sustainability ethos into pragmatic actions for the different key dimensions of sustainability. These Sustainability Principles would be used to provide clear statements to guide policy development and individual decisions on sustainability initiatives across diverse operational divisions. This would allow all levels of the organisation to operationalize sustainability in a manner consistent with the organisation's overall sustainability ethos. Drawing from the leading research literature, eighty-eight distinct categories of potential sustainability principles were initially identified. From these, six headline categories were selected to represent organisational priorities, being one from each of the four Quadrants and one from each of two levels of governance. Specific statements of principles were then drafted for the economic, social, environmental, ethical, external stakeholder and internal governance aspects of sustainability applicable to the corporation's ethos and sustainability priorities at that time. For each headline category, sets of three principles in escalating levels of commitment were created to: a) preserve; b) sustain and c) enhance the sustainability outcomes of the organisation. Draft statements of these eighteen core principles were then prepared using Levels-neutral language. These were tested for conceptual acceptability and common understanding in workshops involving diverse employee groups. Members of the workshop groups were drawn from different areas of expertise using a cross-section of Quadrant biases, different spans of consciousness and different levels of job status within the management hierarchy of the organisation. The proposed wording of each principle was then trialled and refined based on the workshop participants' input until each

person could attribute individual interpretations to the principles which were aligned within a common ethos to represent the entire conceptual hierarchy of sustainability, while also being applicable in pragmatic practice across multiple spans of complexity. As a result of this participatory inquiry process, the completeness of the Integral framework of perspectives represented allowed the finalised Sustainability Principles to be widely accepted across the organisation. The Sustainability Principles were subsequently endorsed by the executive management group as the main business principles for the entire organisation, expanding the business-as-usual range of inquiries to now incorporate sustainability considerations at all-Levels for all-Quadrants. Rather than impose principles that spoke to only one value structure creating natural resistance from other perspectives, the Integral Sustainability Principles resonated and were able to be interpreted by and applied at all Levels, simultaneously aligning and engaging employees in the full diversity of sustainability considerations for the organisation as a whole. (Resource: Tool: Sustainability Business Principles. Reference: (Varey, 2007) 'A Case Study in Integral Applications: Water Sustainability for the Future').

N. Case Study: Sustainability Scenarios Decision Making Simulation.

AQAL: All Quadrants; 3 Levels; 18 Lines; All Types

An executive experiential training program was developed to assess and enhance the organisation's leadership capacity to discern and resolve day-to-day sustainability conflicts. The program was designed to provide senior managers with a direct experience of common organisational sustainability dilemmas in a non-threatening way to assist their confidence in facing the tough decisions a commitment to sustainability involves. Thirty regional managers and executives took part in a half-day sustainability simulation where, in teams, they were asked to decide how they would resolve different 'real-life' sustainability conflicts. Examples were drawn from actual situations in the field and then fictionalised to highlight the ambiguities present in each sustainability decision. The participants were asked to select one answer from three scenarios; one of which would meet standard business as usual compliance, the second gaining some overall advantage for the organisation with trade-offs and a third which would create enduring sustainable value. The alternatives were designed to reflect answers in three Levels of consciousness using different system impacts, time horizons, language cues and escalating spans of complexity to allow the participants to self-identify with their preferred zones of conceptual comfort. The more sustainable answers were not directly obvious to participants and the simulation was run as a non-competitive game with participants gaining an advantage from the selection of the more sustainable answers in the form of greater freedom of choice as to the dilemmas they faced next. The scoring of the game-play results revealed a clearly identifiable range of competencies and capacities in dealing with sustainable choice in discrete Levels of individual consciousness. More importantly it revealed the capacity of cross-Level teams to work collaboratively to resolve irresolvable dilemmas. The process worked as the scenarios dilemmas were carefully framed in neutral terms without the inherent value-laden assumptions normally present in any problem description. The workshop debrief

revealed that rather than feeling threatened by sustainability problems, the managers actually enjoyed and felt empowered by resolving the challenges posed, mostly by being allowed to use their Type-based natural decision making style. The process used the executive managers' strengths by respecting their experience, rather than forcing them to think in ways beyond their own comfort zones of complexity or in conflict with their Type identity. The group learning process met the aim of enhancing individual confidence and also the leadership group's own awareness of its collective capacity to recognise and resolve sustainability conflicts. This provided a new peer norm of acceptability for these types of decisions, many of which were in areas of previous avoidance. The overall observation was how, with accurate Integral framing, coherent sustainability decisions can be effectively made in silo structured bureaucracies by combining multiple levels of consciousness with diverse decision making styles, to combine the perspectives from All Types at All Levels. (Reference: Sustainability Scenarios Game Cards)

O. Case Study: Sustainability Water Resource Management Modelling.

AQAL: All Quadrants

A single groundwater aquifer system was the main source of drinking and irrigation water for over 1 million people and provided a diversity of land uses on which that society depended. A team of research scientists was given the task of modelling the future sustainability of multiple land-use scenarios for different probable rainfall regimes using multiple timeframes to 2010, 2030 and 2060. The intention was to inform the planning alternatives for combinations of the 52 predominant (and conflicting) land uses within the area. The research team's brief was to develop scientifically accurate scenarios to inform the long-term sustainable water resource planning for the entire region. An additional complication was that the outcomes of the process would potentially threaten a number of traditional land uses and communities and so the team was also under pressure in managing the significant political sensitivities of diverse stakeholder groups. A problem arose early in middle stages of the program. The level of technical complexity had created a conceptual barrier for this highly competent group. The data collection lead time on the modelling would take two years once priorities in the key drivers of the scenarios were decided upon. However, the taskforce of experts were not willing to set these priorities until they had collected the necessary data. The project had a life of two years and no progress had been made on the base-line decisions after one year of work. This impasse arose because the (Right Hand) scientific exterior approach which dominated the closed group's planning lacked the processes needed to incorporate the (Left Hand) intuitive interior perspectives of their wider community of stakeholders. At the instigation of one taskforce member familiar with both ecosystem complexity, community dialogue processes and subtle energy barriers, a workshop was organised to add the intuitive perception needed by involving a mix of outside stakeholders. This wider group brought together different expertises (in planning, biodiversity management, water allocation planning, water services, social values, recreation activities, land use management, policy regulation, economic forecasting, etc.) and they were asked to intuitively identify from the complexity of

potential options where the scenario priorities lay. This would inform the team of where the key management actions were likely to be needed and help set the baseline data focus required. The Left Hand intuitive process that was used combined twenty-five perspectives on twenty-two management solutions for the eight major management zones in the region to give 4400 possible choice combinations to correlated with and reflect the complexity of the Right Hand systems perspective. Using a presencing and collective movement technique based in Otto Scharmer's Theory U the group collectively identified two major priority areas and six priority actions providing their combined recommended focus for the research and data modelling. This provided the project group with an instantly recognizable confirmation of where the main research priorities lay, enabling the empirical modelling process to progress without further delay. This Integral approach to a highly complex sustainability task utilised the strength of intuition (Upper Left) and effective stakeholder engagement (Lower Left) to re-balance the system analysis conflicts (Lower Right) resulting from extreme data overload (Upper Right). The case study illustrates that even in the most technical and complex sustainability investigations, an all Quadrant approach is still required. (Reference: Gngangara Sustainability Strategy Taskforce Report - Taskforce [Website](#)).

P. Case Study: Strategic Energy Partnerships and Sustainable Alliancing.

AQAL: All Quadrants; Single Level

A company responsible for regional energy generation, transmission and supply to residential, commercial, industrial and remote community customers needed to develop a strategic alliance process to manage their partnering risk during a rapid growth phase. Prospective partners for profit would need to provide synergies, rather than conflicts, with the organisation's already integrated sustainability and governance processes. Examination of the common causes of partnering failure revealed that an Integral approach would be required. A partner profiling methodology was developed to balance comparisons of technical competency (Upper Right), economic scale (Lower Right), compatibility of corporate cultures (Lower Left) and potential conflicts in project manager personalities (Upper Left) to assist in the filtering of potential partners. This Integral partnering assessment process allowed conscious analysis of partnering opportunities to be completed in all four Quadrants. As a result, the value grid of potential services offered by the organisation expanded significantly while also managing their risks of alliance failure, allowing this smaller player to influence the sector towards higher sustainability values and outcomes. The existing risk management and governance frameworks of the organisation were also expanded to take into account a comparison in the stages of the corporate lifecycles of the organisation and their alliance partners allowing for an evolutionary approach to these alliances. A characterology of corporate personalities was also used to consciously analyse technically proficient companies for cultural compatibility within the Integral framework developed. This partnering process was subsequently used to examine the potential for novel 'coopetition' alliances in the conjunction of water and energy supplies of essential services to regionally dispersed indigenous communities,

focussing on the workability of a neglected sustainability priority that previously had been seen as being outside of both organisations' existing core competencies. (Tools: Potential Partner Profiling Sheet, Quantifiable Assessment Matrix, Alliance Partnering Matching Matrix).

Q. Case Study: Advanced Integral Organisational Sustainability Short Course.

AQAL: All Quadrants; Seven Levels; Multiple Lines.

An advanced sustainability training course for organisational change professionals was designed and delivered using Integral principles. The two-day intensive course was scoped to examine multiple facets of organisational sustainability across four Quadrants, in six Levels and nine distinct Lines, for many different types of organizations worldwide. Sustainability professionals as guest speakers presented personal case studies from their own quadrant bias to provide a spectrum of approaches to the concepts, culture, systems and measurement of sustainability used in different types of organizations. A unique approach to the integration of the four Quadrants was used whereby tetra-evolutionary stages of sustainability were unfolded as distinct phases in a clear progression, employing a dynamic levels-based conception of sustainability change as an evolutionary process. The Levels compatible phases of sustainability developed by Prof. Dexter Dunphy were used to ground all the course learnings, his six phases, being: 1. Rejection, 2. Non-Responsiveness, 3. Compliance, 4. Efficiency, 5. Strategic Proactivity, 6. The Sustaining Organization. Each of the six phases builds on (and assumes) the economic, social and ecological mastery of all the activities of all the previous phases, reflecting different conceptions of sustainability based in levels of consciousness as they would appear at the organisational level. The culmination of the course was an exercise that enabled participants to find the appropriate present level of sustainability enactment for their organization in four Quadrants and a bandwidth of Levels and then provide detail of the tetra-evolutionary path to where their intended organisational sustainability programs, once enacted, would take them in the future. What was discovered was that a group of diverse professionals with no previous understanding of Integral theory could easily learn and use Integral-level principles in the management of transitions in sustainability in Levels and Quadrants, without the need to even mention those terms. (Reference: Engineers Australia: Organisational Sustainability Short Course).

R. Case Study: Sustainability Strategy Causal Loop Analysis in Levels.

AQAL: All Quadrants; 2 Levels

In managing organisational and societal level sustainability change programs from an Integral perspective in multiple Levels of consciousness there are significant complexities the Integral practitioner must bring together if the isolated programs and initiatives needed are to mutually support, rather than conflict, with each other. By creating an alignment in the initiatives enacted within a social holon, a natural progression in the dominant structures of consciousness over time is theoretically possible. To test this approach, a causal loop diagnosis was conducted of the

sustainability dynamics operating within an organisation of 2200 employees servicing 980,000 customers as a clearly identifiable social holon within its wider societal context. Firstly, multiple dimensions of the psychological, physiological, social systems and cultural values dynamics in four Quadrants were examined in an attempt to find the reinforcing system drivers that would promote the natural transition between dominant levels of consciousness in the organization's management structure. The sixty different dimensions of significance identified from across all of the Quadrants were then mapped onto a 3D systems model. The sustainability initiatives and system drivers for change were then identified in each of the two Levels of consciousness across the four Quadrants. The key intervention points to enable change were then able to be seen as part of the overall biopsychosociocultural dynamic landscape. The system dynamics of the organisation in its past, present and emergent states were then modelled for the different intervention scenarios that would promote and integrate sustainability outcomes desired by the organisation. The Integral systems dynamics model developed was then used to inform decisions about the type and timing of actions in the implementation of those sustainability goals. As an example, what was revealed in this particular context was, that in the transition from an Amber to Orange culture, the introduction of sustainability indicators was a necessary preliminary project to the promotion of sustainability goals, requiring the prior integration of sustainability performance measures into the existing corporate planning process. This necessary analysis suggested that key initiatives already underway would need to be strategically delayed until the preliminary work had been done to pave the path to a more fundamental and sustainable program of sustainability change. The dynamics as modelled were later revealed to actually have occurred in practice. This level of analysis to align changes in a tetra-evolutionary sequence informed by a four Quadrant perspective, while apparently complex, may be fundamentally necessary if the aggregate of our collective sustainability work at a societal level is to be sustainable in effect, not simply in its stated intention. (Artefact: Vensim Layered Causal Loop Modelling Maps).

S. Case Study: Integral Sustainability Indicators for Corporate Footprint.

AQAL: All Quadrants; All Levels

An organization undergoing a shift in sustainability values from Amber to Orange sought to develop key sustainability performance measures. Rather than choosing random 'greenwash' indicators or external standardised corporate reporting initiatives, an internal sustainability consulting team conducted an analysis of the major sustainability footprints (both positive and negative) that the organisation was imposing on its different environments. With the aim of monitoring an Integral holarchical conception of impacts, this review was done in multiple Levels using an analysis of the footprints of the organisation on its ecological, technological, sociological and psychological landscapes caused by its mere existence. An Integral ecology metaphor based in holarchical biomimicry of tadpole evolving into a cane-toad in the context of the eco-system of a pond was used to maintain the conceptual definitions while the domains were being investigated. Ten key indicators for

corporate sustainability in eight holarchical impact domains across the four Quadrants were specifically identified as priorities for the organisation in measuring the impacts of significance in each Level. These were then described using the following headings for the purposes of internal corporate communications: A. Future Assets Balance, B. Climate Change and Energy, C. Resource Use Efficiency, D. Ecosystem Integrity, F. Community Cooperation, G. Fair Partnerships, H. Self-Renewal, I. Socio-political Mandate, J. Internal Governance Coherence and K. Contributive Social Integrity. Impact indicators, baselines and metrics were developed and translated into Amber terminology for each of these key domains. Orange initiative-level targets were then set in the areas of greatest potential for beneficial decrease in the Integral Sustainability Footprint of the organisation looking at its operations as a whole. Communication of the indicator set was then used as a central mechanism to facilitate an organizational 'gravity shift' from conservative Amber to healthy Orange sustainability values. A heuristic tool was developed to map all the indicators for the different domains of impacts in a single page as the Integral Sustainability Scorecard for the organisation. The approach in this case study examined a way to lessen the full panarchy of impacts of the organisation within its societal context at all-Levels and in all Quadrants, instead of driving behaviours to meet generic reporting initiatives with no relevance to the organisation's actual operations or impacts of significance. (Tool: Sustainability Scorecard)

T. Case Study: Integrally-Informed Sustainable City Indicators.

AQAL: All Quadrants; Physiosphere and Biosphere Levels

The three main government bodies responsible for sustainable land-use planning jointly participated in a collaborative inquiry to develop the baseline indicators for a sustainable city. The inquiry was prompted by the desire to engage in long-term city planning that would endure beyond the three-year political cycle and withstand short-term changes in political power and fluctuating social policy. The initiative was prompted by the conjunction of declining indicators in a comprehensive state of the environment report and dramatically increasing projections for urban housing demand. The indicators developed looked specifically at the city's fundamental environmental needs for the sustainable carrying capacity of the urban environment. The inquiry specifically excluded from the indicator set social and economic factors that were politically influenced (e.g. crime levels, community services, unemployment, urban land-release, etc.) that may drive social changes in conflict with or independent from the underlying ecosystem integrity. This approach respected the principles of holarchical development in Integral Sustainability systems theory, being that without underlying biosystem integrity, the social, economic and political systems integrity cannot be ultimately sustained. An expert was engaged to propose an initial set of macro-categories for the indicators (drawing from many sources including the 1992 Bellagio Principles, international case studies from other cities, national standards, current environmental reports and state planning documents). A multi-purpose stakeholder group was then formed to refined this wider category set into five essential indicator categories from a sustainable city planning perspective, being: water, waste, energy, shelter, and the integrative

dimension of land use. Within each category, an Integral approach was used to specify the statement of intention (UL), outcome values (LL), specific initiatives (LR) and measurable indicators of enactment (UR) to create an integral framework of macro-level city-wide sustainability goals. The framework was then populated with 25 key indicators of system sustainability using location specific information. This integral set of baseline indicators across five interlinked aspects of essential human needs for sustainable habitation provided a means to define the base system-health of the city's sustainability at any time and for any timeframe. By monitoring and maintaining these lower order dynamics, changing social policy needs could then be overlaid upon the baseline carrying capacity of the city's ecosystem health with the view to ensuring both a sustainable and culturally evolving society as a whole. The proposed set of city planning indicators was then recommended to the main inter-agency planning body for widespread adoption as the main intergovernmental reporting tool for the city's overall sustainable design. (Tool: Integral Baseline Sustainable City Indicators).

U. Case Study: Indigenous Offenders Rehabilitation Program.

AQAL: Eight Zones; Integral Methodological Pluralism; Multiple Levels

The community services branch of the government department responsible for domestic violence offences in the justice system identified a remote rural coastal township as the pilot location for a new indigenous offenders' rehabilitation program. The need for the pilot program was prompted by a review of parole processes for offenders so as to prevent a re-occurring cycle of domestic violence, offender imprisonment and social fragmentation, that was only leading to increasing levels of domestic violence. In the evolution of social systems there occasionally will appear self-defeating recursive loops, where the system moves on, but leaves one part behind. In enabling the higher-order sustainability of the whole, such 'eddy-currents' of conflict may take increasing amounts of resources to resolve, creating system-wide impacts that limit other progressions. In this location regional domestic violence was having wider social level impacts in terms of crime, drug addiction, unemployment, social violence, loss of social cohesion and ultimately societal viability. This pilot enabled one location to be examined in isolation. Using an approach to the integration of perspectives (grounded in Integral-Post-Metaphysics) a workshop process was designed to bring together in one place the voices of offenders, aboriginal communities, prison therapists, justice department policy officers, aboriginal spiritual elders and the victims of domestic violence. The workshop design relied on the eight horizons of perspectives disclosed by Integral Methodological Pluralism. To examine multiple inquiry questions simultaneously in collaborative dialogue, the participants were invited in turn to speak to groupings of Paradigm Questions (Zone #1), Approach Questions (#2), Offenders' Questions (#3), Culture Questions (#4), Content Questions (#5), Practice Questions (#6) Resourcing Questions (#7) and Context Questions (#8). To represent and integrate these perspectives, the cultural motif of a sea turtle was used, as a familiar and culturally significant symbol to the local indigenous people in the pilot program region, also easily recognisable by the departmental officers. The participants self-identified the

flippers as the four Quadrants, and the plates on the shell as the eight Integral perspectives, with the head and tail of the sea turtle representing to them the past and the future of the parole program. This simple heuristic device allowed each perspective to speak to the issues raised in the workshop forum to enable all the perspectives (including those voices previously silenced) to be held together in one frame at the same time. This dialogue provided the integration required to enable support for the pilot program to proceed from all the parties involved, as a first step to resolving this one barrier to wider health and sustainability of the entire system. (Artefact: IMP Turtle).

V. Case Study: Integral Urban Water Recycling Strategy Formulation.

AQAL: All Quadrant; Multiple Levels; Multiple Lines; All Zones

An Integral approach was used to meet the goal of developing a government strategy to achieve a statewide water recycling and reuse target of 30% within five to seven years. While a pre-existing water conservation and efficiency strategy had become a popular and successful program, the next stage of integrating water recycling and re-use of sewage and waste-water into drinking supplies was seen as being more politically sensitive, due to compounding difficulties from the ecological, economic and social domains. The Integral sustainability process used began with an AQAL analysis to identify the different strategy paradigms potentially appropriate to the Levels of consciousness and values systems operating in the ultimate decision making structures and social and political environments in which the strategy would be enacted. This was done to match the question asked, with the answer that the system was asking, to avoid the result of developing an Integrally sound technical solution that was politically and socially impracticable and unattainable. Integral methodological pluralism principles then informed the approach selected so as to: i) define the aims and goals of the strategy in the minds of decision makers (Zones 1 and 2), ii) design the community engagement market research tools and communications plan used to assess the values and perceptions operating (Zones 2 and 3), iii) measure and quantify the potential health and environmental risks and impacts of the initiatives proposed (Zone 4 and 5) and; iv) and identify the inter-relationship and system wide benefits of the mix by sector, region and scale of the potential water recycling projects considered (Zone 7 and 8) for the implementation time-frame of the strategy. The facilitation approach brought together the perspectives of multiple stakeholders and experts in representative cross-disciplinary working groups. These groups worked in parallel across four major inquiry areas of industrial, urban planning, community recreation and domestic supply options before combining in a final integrative workshop of key findings. The process identified over three hundred specific concerns, considerations and criteria identified by the groups across six model case studies. By meta-dynamic modelling these perspectives, clear barriers and drivers to generic projects for each type of water recycling initiative could then be derived. Potential projects to form the key parts of the strategy proposed were identified, including: secondary waste water industrial use, third pipe domestic schemes, public open space wastewater irrigation, managed aquifer recharge schemes and groundwater replenishment programs. AQAL

language, tools and processes were explicitly used at all stages of the strategy development, from conception to the working group technical analysis of the proposals and subtly informed the final recommendations made. This Integrally-informed strategy process resulted in a comprehensive picture of an integrated water cycle and its management approach for the urban landscape incorporating perceptions, perspectives, processes and parameters into a whole of systems approach. Most importantly the methodology used of working on specific case-studies as conceptual proposals in the collaborative cross-sector development of the strategy, modelled the collaborative approach that would ultimately be required in the inter-agency and stakeholder co-operation necessary, should the strategy developed be actually endorsed and implemented. (Reference: State Water Recycling Strategy 2007).

W. Case Study: Integral Sustainability Communication Master Class.

AQAL: All Quadrants; Four Lines; All Levels; All Perspectives

A team of sustainability professionals familiar with Integral sustainability concepts was finding that, while the solutions they developed were clearly meaningful to the team, their underlying rationale of wholeness and integration in multiple Levels was not so obvious to other managers and stakeholders in their organisation. The level of frustration experienced in communicating their higher understanding began to impact adversely on their own personal enjoyment in working in the sustainability field. This common experience of values-system deafness, where each system seems to fail to hear the other, can lead to each simply shouting louder. In seeking to change others' views to see the existence of their meaning, the team members were beginning to lose their own path to a meaningful existence. In developing their sustainability practice they were ignoring the sustainability of the practitioner. The Integral skills of perspective taking and understanding the 'kosmic address' of a person and the implications of this on communications were highlighted for the team as professional development skills that were essential for personal sustainability in the enactment of Integral solutions. A six part Integral in-house training program was designed whereby participants developed the awareness and skills needed to assess their own and others' levels of consciousness in major lines of development for all four Quadrants to create the precision necessary for the Integral-level work they were now doing. The four specific lines used were: ego-identification needs (Upper-Left), neurological thinking styles (Upper Right), communal values attribution (Lower Left) and systems complexity capacity (Lower Right). Illustrative 3D psychographs of specific individual's levels of consciousness in all four Quadrants were created as a heuristic device. Further training in Integrally-informed levels-aware communication styles enabled the participants to match their own need for communication with the communication needs of their internal and external stakeholders. Just knowing why the sustainability messages they were communicating were not being heard and understood led to greater Integral awareness for the team as a whole, as well as increasing their individual receptivity to their own development in compassionate communication skills. The process of better seeing oneself will often lead, as in this example, to the desire for more skilful

means of delivering sustainability messages in ways that are more respectful of others for all Levels and capacities of consciousness. (Tool: Understanding Consciousness – Training Program and 3D Maps).

X. Case Study: Integral Masters Course in Societal Transformation.

AQAL: All Quadrants; Green-Teal Level Cognition; Magenta Level Injunctions

A Masters Degree course in organisational and community social leadership for societal sustainability was established in 1995 based on Integral education principles. The capstone unit program in the three-year, sixteen-unit course used a nine month applied project selected and designed by the students themselves to integrate their developmental learnings. The projects selected were required to combine key leadership aspects in each of the four quadrants, namely: 1. personal mastery and leadership competencies (Upper Left), 2. situational analysis of environmental parameters (Upper Right), 3. community and group facilitation of shared understanding (Lower Left), and 4. complexity theory and systems change management (Lower Right). The participants were specifically asked to engage in 1st person, 2nd person and 3rd person learning objectives as part of their final assessment. The 1st person inquiry processes centered on personal learning development goals and reflective practices that were incorporated into their project design. The 2nd person inquiry processes used the establishment of peer coaching dyads informed by an eight stage AQAL inquiry process. Their achievements in 3rd person goals were assessed by their peers based on the application of their cumulative knowledge in making transformative change in an organisation or in the community. At the completion of the course, a closing integrative reflection processes was used to bring their projects and the student's personal learnings over the entire Degree program together. These reflections were prompted by state experiences using narrative storytelling and Native American Indian myths contextualised in the meta-framework of Joseph Campbell's Hero's Journey lifecycle, which were designed to ground their learnings in multiple levels of reflection. This counter balance of Quadrants and perspectives within Levels provided the graduating students with an opportunity to expand their integrative experience to include the entire holarchy of their whole leadership self, allowing for the combination of their otherwise fragmented degree units into a personally fulfilling self-guided Integral frame. (Resource: Peer Coaching Toolbox, Hero Monomyth Mapping Tool).

Y. Case Study: Integral Sustainability Critical Systems Thinking Masterclass.

AQAL: All Quadrants; Teal Level (Upper Left, Lower Right focus)

An Integral level in-house program to promote sustainability change leadership and critical systems thinking was designed to support the internal and external leadership of sustainability projects of societal level significance and complexity. The components of the course were selected using a four-Quadrant analysis, identifying the different attributes of systems thinking and the practical competencies required of meta-systemic sustainability thinkers facilitating large-scale change. The program

structure adopted integrated different skills in different lines into ten discrete modules:

A. Sustainability Critical Thinking and Inquiry

Module 1: Critical Thinking Skills – Questioning Assumptions/Forms of Inquiry

Module 2: Sustainable Futures – Sustainability Paradigms and Futures Models

B. Sustaining Personal Leadership

Module 3: Sustainability Ethos – Personal Awareness/Understanding Perceptions

Modules 4: Sustainable Effort – Personal Resilience and Sustainability Leadership

C. Sustainable Systems Analysis

Module 5: Sustainability Systems – Systems Thinking and Systems Analysis

Modules 6: Sustainability Design – Sustainability Metrics and Measurement

D. Sustainable Stakeholder Relations

Module 7: Sustainability Ethics – Stakeholder Partnerships and Societal Values

Module 8: Sustainability Consultation – Communicating Sustainability

E. Sustainable Decision Making and Change Management

Module 9: Sustainable Decisions – Governance Models and Sustainable Assessment

Module 10: Sustaining Change – Facilitating Sustainability Systems Interventions

F: Learning Integration:

Conclusion Module: Presentations and Meta-Systemic Reflective Integration.

Due to the high level at which the Course was delivered, participants were pre-screened and selected using an instrument designed to test for three key attributes, being: i) meta-systemic cognition, ii) psychological openness and safety; and iii) meta-reflective capability, to enable a manageable zone of proximate development for all participants and receptivity in the full range of learning modalities selected. The successful group of participants represented the full diversity of personality types, were from different disciplines (e.g. zoology, psychology, economics, engineering, etc.), came from a wide range of operational responsibilities and had an equal mix of genders within the group. In each module of the Course participants engaged in three forms of pre-reading, received an informal presentation from a sustainability systems thinker to gain an embodied perception of the skills being taught, worked with a sustainability tool or technique in practical application to a project of their choosing and then brought their learnings together through an integrative group Dialogue process. Reflective assignments utilising a four Quadrant inquiry process were required for each Module directed specifically towards a specific project of societal benefit. The Course program presented the work of some leading thinkers in systems theory, futures studies and sustainability including: Donella Meadows, Gregory Bateson, E.F. Schumacher, Lance Gunderson, Crawford

Holling, Clare Graves, William McDonough, Peter Schwartz, Joanna Macy, Amory Lovins, David Bohm, Peter Senge, Douglas McKenzie-Mohr, David Suzuki, Buckminster Fuller and Ken Wilber. To guide pragmatic application of the learnings, Bill Torbert's recursive developmental action inquiry was used as the foundation learning methodology, integrating the nine action logics at different levels of consciousness. Course topics covered included: sustainability ethics, soft systems theory, leadership of adaptive systems, sustainability perspectives, panarchy analysis, natural capitals calculation, environmental economics, sustainable design, community consultation, values systems, integrated sustainability assessment, multi-criteria/multi-level decision making, sustainability metrics and indicators, sustainability change facilitation and integrally-informed systems intervention. The program used progressive and reflective feedback in its design with students designing for themselves the adaptive feedback process. The Course began its in-house pilot phase in April 2008 and follow up programs designed to bring together leading thinkers from key stakeholder organisations as participants are being planned. (Artefact: STEP Course Outline and Reader. Modules 1-10 in Theory, Task, Tools and Talk)

Z. Case Study: Development of Integral Emergent Disability Services Model.

AQAL: All Quadrants; All Levels; All Types; All Lines; All Stages; All Capacities

A not-for-profit organisation was the main provider in its community of disability services for people with blindness or vision impairment. Research had indicated that there were 35,000 people in that community identifying themselves as having this disability, yet only a proportion were actually receiving services from the organisation. Over time the broad range of services offered by the organisation had increased in span and quality, with the cost of the service delivery also increasing proportionately. Their member-based service model enabled a range of customised services to be provided for various ages (e.g. child care, school age assistance, assistive technology for the elderly etc.), for different levels of vision impairment (e.g. partial sightedness, total blindness, etc.) and for the different stages of life at which the onset of blindness may occur (i.e. birth, workplace injuries, eyesight degeneration in old-age). This resulted in individually unique service needs being met from a nominal service fee, delivered with great efficiency with a high level of personal care, at a large operational cost. While the organisation could continue with this service model by relying on charitable fundraising its ultimate sustainability was diminishing. The more successful it became at creating client independence the greater was its reliance on recurrent donor dependence. The Integral level developmental question was would the organisation release the gains it had made to move to the next level of sustainable integration, allowing for the expansion of the organisation's vision to fully meet the needs of the society it served. To structure an economically and socially sustainable approach to their core services, an integral system dynamics analysis was used to firstly identify essential client needs as a nested holarchy of individual development, social connectivity and societal receptivity. Also, rather than follow their competitors' approach and look solely to the monetary viability of the medical and equipment costs of individual service

delivery and recover these losses by rationalising operating expenses and shortfall fundraising, the approach developed looked specifically at satisfying the psychological needs of the client (e.g. counselling, information and mental stimulation - I), the social needs of the client (e.g. communication, participation, engagement - WE) and the physical needs of the client (e.g. assistive technology, mobility and physical wellbeing - IT). A new business model was developed using a different philosophy of generative care with an alternative paradigm of service delivery. The main objective of this philosophical re-frame was to reverse the defeating dynamics of the ever increasing pluralism of services to combine increased demands for service delivery with an enhanced, more specialized, capacity to deliver those services. It was realised that to fulfil the organisation's vision a complete perspective of the needs of the vision impaired in ages, stages and levels with appropriate modalities to meet each individual situation at an Integral level of complexity was the minimum required for a sustainable theory of practice. The approach that resulted was a model where the purpose of care became more focussed, specifically looking at new services enhancing the confidence (I), connection (WE) and wellbeing (IT) of clients of all ages and for all stages of life and all levels of impairment, without diminishing any of the dependent services previously available. The re-thinking of the role of the organisation in society, its vision, strategy and the modes of service delivery used highlighted the shift needed towards a more integrated whole-person, client-centered, societally-contextualised approach. This shift marks one that will perhaps be increasingly seen in society as a whole, as optimisation moves to diversification and sustainable viable integration. It is a shift that will need to be led by those wanting, not to make the blind capable of seeing, but finding many different ways of working with the capabilities for sight. Using its re-framed philosophy as the base, the organisation commenced a ten phase strategic development program to manage the transition from its present paradigm of practice towards a generative model of specialised personal care to truly fulfil the complete span of developmental needs of the vision impaired. (Reference: Organisation Website).

Will Varey

10 April 2008

Endnotes:

1. The tools and resources referenced in these case studies are mostly available in the public domain and can be made available to practitioners with an interest and understanding of the principles necessary for their use. Some individual case-study tools and materials are copyright protected or are subject to privacy or confidentiality commitments and are not able to be released without prior consent from the individuals or organisations involved. If you are interested in pursuing your inquiries into any of the case studies presented, please contact me directly by email: will@emrgnc.com.au
2. Each case-study follows a similar format and all are arranged in a sequence. As this work arose from the experimental approach of engaging in reflexive participative inquiry directly with the social holon in which the work was conducted, the order reflects a developmental progression of points of intervention across quadrants so as to enable tetra-evolutionary emergence at the societal level in response to the holarchy of human needs disclosed (as opposed to their chronological unfoldment - as many of the case-studies were conducted simultaneously in parallel and non-contiguous timeframes).
3. The case-studies described are restricted to integral sustainability applications completed during the study period. Other work completed in the fields of integral organizational development, integral leadership development and integral community development during this time are also available on a case by case basis. My collaboration on new programs for societally beneficial integrally informed sustainable outcomes within these fields is always offered.
4. Coincidentally, this précis was completed just as Buddha's birthday celebrations were commencing. This work is dedicated, in eternal service of those who serve the protection and potential of all living beings everywhere.

Biography:

William Varey (BJuris., LLB(Hons.), MLM (Distn.), Integral Theory(Cert.)) is a biopsychosocial systems psychologist. His focus is on the system dynamics that lead to the sustainability of emergent systems, specifically psychologically disaggregated social holons, by examining the generative dynamics of health and wellness at the societal level. He is the founder of **emrgnc**, a forum for consciousness evolution. He is presently working on applied research into the theories of healthy societal growth extending on his Masters research into the dynamics of generative learning in organisations. He is an Associate Fellow of the Australian Institute of Management (AFAIM), a member of the Association for Humanistic Psychology (AHP) and a graduate of the John F. Kennedy University Certificate Program in Integral Theory. He can be contacted at: will@emrgnc.com.au