

SEGRA Sustainabilities Showcase

Skillset at The Flannery Centre

Training Sustainability Technologists - the cart or the horse?

Ashley Bland – Sustainability Manager

Background - why do we think this way?

Skillset is a Group Training Organisation and Registered Training Organisation based in Central West NSW. At any one time we manage around 700 Apprentices and 300 Trainees with a further 100 or 200 people enrolled in short courses. For 28 years we operated as “Central West Group Apprentices” focusing chiefly on Apprenticeships and for the last ~5 years, Traineeships too. We have recently unified our brand and included two new lines of business; Workforce Development and Sustainability.

When the organisation was formed in 1982 it was for the purpose of “giving young people a start”. Throughout the 80’s and 90’s that meant finding a job, making it secure and providing tailored support for both the apprentice and the employer. In the first decade of this century however it became increasingly clear that giving young people a start involved more than simply getting them into a trade; we began to ask ourselves about the world we were leaving for them to inhabit!

Aside from a moral imperative to operate sustainably ourselves, and assist others in doing the same, are a whole set of pragmatic reasons to enter the ‘green’ space:

- Green is the new black - get on board to meet the demand
- Resource constraints - peaks in supply expose vulnerability
- Population and economic pressure - forcing up productivity and efficiency

We believe that these factors are sufficiently important to drive a broad level of social support for change. We believe that ‘we’ are on the cusp of ‘mainstreaming’ a range of sustainability technologies including; energy and materials efficiency, waste management and reuse, and renewable energy.

Some of the major drivers for this are;

- Peak oil - urging us to increase efficiency and search for renewable alternatives
- Climate change - responding to the social and legislative obligation to reduce greenhouse gas emissions
- Population growth - infrastructure under strain and increased competition.
- Economic instability - taking a risk reduction approach to global trade and supply.
- Social permission - responding to new standards
- The stars aligning - a combination of emerging technology, new materials, demand, timing, favourable economic conditions and opportunity/access
- Follow the \$ - Government programs, policy and associated funding/incentives

These point and more were reinforced in a report Skillset commissioned from Ian T Dunlop into the risks and opportunities specifically for western NSW.

Having listed the above however, we are acutely aware that most industries are set up to do what they did yesterday, not what they need to do for tomorrow. A critical part of fostering sustainability technologies is working with organisations to develop the mindset for implementing new systems and technologies.

Our response - The Flannery Centre

In 2009 Skillset received \$5 million funding under the Federal Government's Education Investment Fund to build a Green Skills and Carbon Efficiency Training Centre - the Flannery Centre. This funding was provided on the basis that Skillset use the facility to foster skills development, particularly for emerging sustainability fields and areas of skills shortage. Skillset contributed an additional \$3 million to co-locate the head office and expand the capacity for the centre to be an exhibition and conference facility.

The Flannery Centre seeks to; provide clarity about the issues we face, assist businesses and individuals adopt sustainable practice, and conduct programs and offer services that increase community well-being.

Our vision is for life to thrive on a finite planet

Our mission is to inspire, lead and learn our way to a positive future.

The building itself is a 5 Green Star designed structure containing offices, a hub, a gallery, 6 class rooms, 4 seminar rooms (with video conference facilities), 2 laboratories, 2 workshops, a horticulture facility and 3 Ha of land demonstrating sustainable land management.

The centre will be officially opened by Tim Flannery in March 2012.

Our programs are themed around 4 Pillars; The Built Environment, Natural Landscapes, People and Business. Within each pillar we offer a range of learning opportunities from free information (the honest broker) to tertiary level qualifications. Demonstration programs and a series of exhibitions allow the community to see sustainability technologies in action.

How to train people in skills they don't know they need yet for jobs that haven't been invented yet.

Skillset sees the following main issues limiting the training of Sustainable Technologists.

1. The existence of sufficient levels of sustainable technologies being applied to create viable businesses in maintaining and operating them
2. The lack of experienced trainers
3. The lag time in developing and delivering accredited training
4. The current job market - the impact of the mining boom and subsequent 'two speed economy'
5. Reform in the VET sector

None of these issues is a 'show stopper' however combined they create a formidable obstacle that, to overcome, requires a strategic approach. Skillset has developed a "pincer move" approach to work on both the demand and supply sides. That is, we work with businesses to develop their workforce and to remove fear and uncertainty around the

imperative for change and we work with employees to develop skillsets appropriate for a different future.

Using our networks we also identify individuals with appropriate experience to become trainers in sustainability related fields. Our network of apprentices and trainees also assists in identifying people with an interest in sustainability. Finally our positioning within the community is attracting “early adopters” keen to take advantage of the coming opportunities in sustainability.

It is popularly said that knowledge and technology is moving so fast that by the time one finishes a degree or apprenticeship, the things learned in first year are out of date! Certainly, the time taken to develop nationally accredited training is often measured in years. Skillset believe that in the short to medium term, for sustainable technologies, the teaching will be largely vendor driven. In many cases this is appropriate as core skills for electricians for example, will not change greatly. Fortunately many of the sustainable technologies are not reliant on new trade skills, rather re-application of existing skills. In this case sustainable technologists will be identified by their experience and industry training and may come from a range of formal skills backgrounds. Furthermore, the range of accreditations available through the National Training Information Service - now “Training.gov.au” - is such that it is often possible to ‘map back’ to existing competencies.

Of note is the trend for ‘whole systems thinking’ which at trade level means that, for example, the plumber needs to understand how a solar passive house works. Much of the sustainable technologies in the building industry rely on ‘buy-in’ to the overall concept so that important details are not missed. The effect of the best heat recovery system is easily un-done through poor sealing of the house by the cladding contractor. Skillset has developed generalist training in sustainability for the workplace that aims to engender this whole system approach in employees.

Also of note is our observation that consumers are often more knowledgeable than tradespeople when it comes to sustainability. For example, our partners at Green Homes Australia have found that the demand for education and training at the building trade level is being driven largely by tradespeople feeling incompetent in front of difficult questions from potential clients.

We have also observed that some young apprentices are keen to engage in sustainability training but their boss doesn’t necessarily see the value in it. We also know that many Small and Medium Enterprise owner/operators are so busy in the day-to-day running of the business that they need a highly compelling reason to even think about change in advance. Asking business owners to plan, let alone ‘respond’ rather than ‘react’ is often challenging. We are developing a sustainable business coaching program to assist businesses in this regard.

The very model of apprenticeships and Vocational Education and Training is changing as outlined in the recent Skills Australia report “Skills for Prosperity - a roadmap for vocational education and training” which speaks largely to meeting the needs of the booming resource sector. The mining boom in itself is a problem for business in our region as SMEs become reluctant to invest in training young people who, once skilled to an appropriate level, leave to work in the mines for three times as much money. In fact, trades apprentices can earn more money at the local fast food outlet.

A couple of stories...

Story 1. My father in law, Don, eventually tired of paying for gas fired hot water when the sun beat down upon his roof for the greater part of the year with great intensity. Don did his research and had a gas boosted solar hot water system installed. After three months of feeling satisfied every time he glimpsed the black panels on his roof Don was surprised to open his gas bill and find a number much larger than envisaged. Don rings the installer to say "It's not working" and is asked "Is the green light on?" "Yes" says Don. "Then it's working" says the installer. Several variations of this conversation and some days later, Don, unhappy that nothing had changed, uses his engineering background to pull the control unit apart himself and finds a fault in the control circuit resulting in a closed solenoid and erroneous open circuit reading a green light. The final conversation involved Don explaining the situation to the installer who then said something along the lines of "Well mate don't ask me. I'm just a plumber. I hook them up but I don't know anything about how these things work!"

Story 2. In meeting recently with a local government regarding a potential large scale renewable energy project conversation turned to motivation; why would Council be interested in committing funds to such a project?

Reducing Greenhouse gas emissions? Well, yes but not a high motivator. The tip is the biggest issue there.

Social responsibility? Well... yes but not if it costs too much.

Energy security? Huh? Can't see that being a problem.

OK. So what would motivate Council then? If it returns the same sort of return on investment that investing our funds elsewhere would, ie 6 or 7%.

These stories remind me that the rest of the world does not necessarily think like me! In regard to 'mainstreaming' sustainable technologies and thus providing meaningful careers in same, it is worth remaining cognisant of the wants and needs of the organisations we hope to see investing in the technology and the people to run it. The argument for change must be crafted carefully and presented to overcome the natural fear, uncertainty and doubt that is often raised by any change, let alone one related to 'green stuff'. Alignment in values and having shared goals will go a long way to working through the technical and procedural issues that are all too evident when it comes to implementing sustainable technologies and training a workforce competent in effective management of them.