

Australia Latin America
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GREEN SKILLS DEVELOPMENT IN AUSTRALIA

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Outline of presentation

- Introduction and Policy context
 - The Green Skills Agreement
- The Green Economy and demands
- TVETs ability to meet demands
- Some case studies
- Challenges to meet demand
- Addressing the demands
- Obstacles and opportunities
- Conclusion

Introduction and Policy Context



- **What are ‘Green jobs’**
 - “draw on skills that directly or indirectly reduce carbon emissions, reduce environmental impacts or that produce broader sustainability outcomes within business or the community”.
- **The Green Skills Agreement was endorsed Nov 2009 by COAG**
 - development of national standards in skills for sustainability within the National Skills Framework
 - upskilling VET practitioners so they can provide effective training and facilitation in skills for sustainability;
 - reviewing and revising Training Packages to incorporate skills for sustainability; and
 - implement strategies to reskill vulnerable workers in the transition to a low carbon economy.
- **Australia’s new policy – Direct Action Plan 2014**
 - reducing Australia’s emissions by between 5 and 25 per cent below 2000 levels by 2020

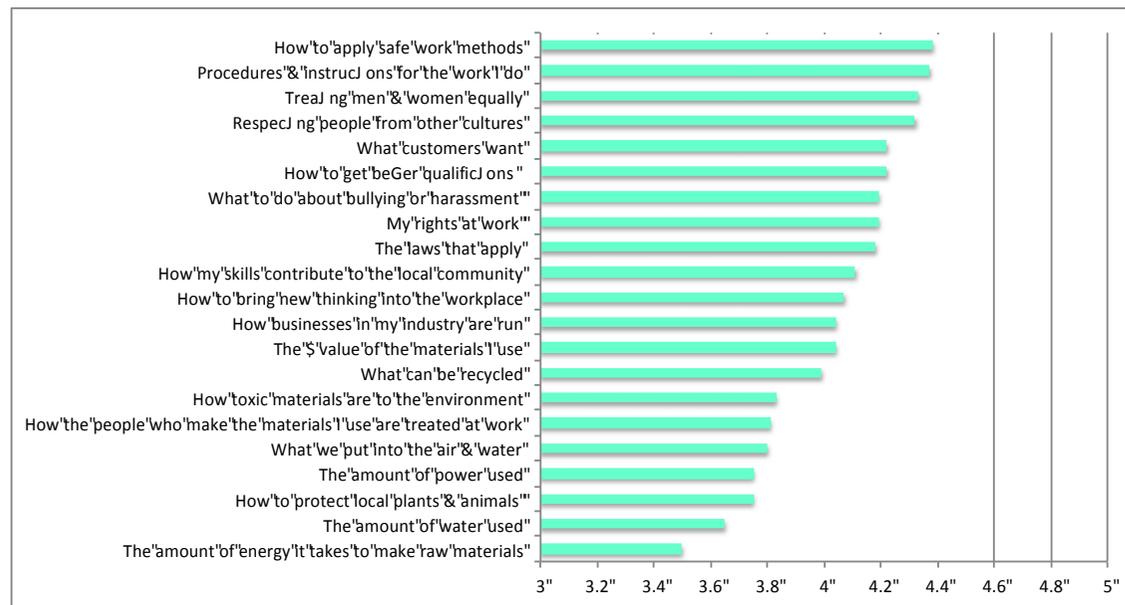
The Green Economy and its demands

- **The Green Economy**
 - Industries engaging with sustainability – construction, manufacturing, finance – sustainability reporting, eco-tourism, water, energy sector etc
- **Manufacturing sector**
 - In decline in Australia – needs a new approach
 - Innovation and improved productivity needed
 - A 'LEAN' approach consistent in the industry
- **Construction industry**
 - Green Star rating system
 - The Green Building Council
- **Finance sector**
 - Sustainability Reporting
- **Industry more broadly**
 - Lack of real interest evident

The Green Economy and its demands

The TVET response

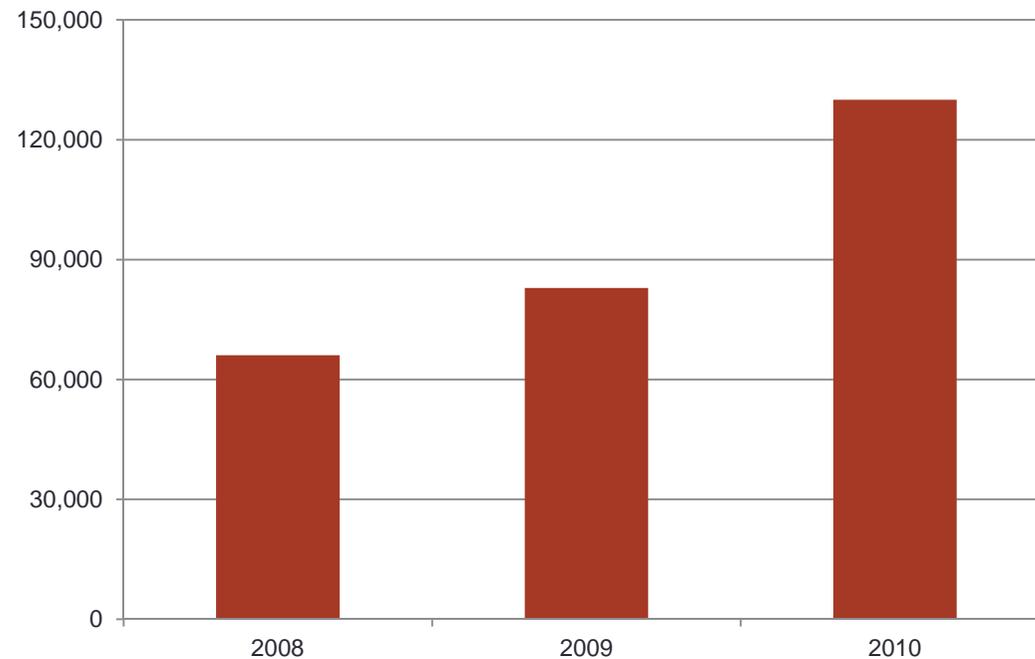
- Green skills integration evident throughout Training Packages – that is training guides
- Teachers have a broad understanding of green skills but lack in-depth understanding of more complex technical skills
- Reasons for not teaching green skills - ‘ *it’s not in the learning requirements (54%), not enough time (20%), don’t have the skills or knowledge (16%), not confident teaching this (4%)*”



Ref: Sack,
Brown,
Rahimi and
Turnbull, 2014

National uptake of Green Skills

The impact of the Green Skills Agreement 2009



Green Skills/ energy efficiency training enrolments (Aust 2008 – 2010)
Source NCVET Students and courses database)

TVET meeting demands?

- **Industry wide**
 - Construction, manufacturing, ecotourism, finance etc
 - Basic green skills in building efficiency, lean manufacturing, sustainability reporting meeting demands
- **Solar industry**
 - Job numbers in the sector peaked between 2011- 2012 but fell by 15 per cent (a loss of 2,300 jobs) between 2013 and 2014. This may be revived now with a new Renewable Energy Target in place
- **Demands not met**
 - More in-depth green skills needed around LCA, energy efficiency, auditing, environmental accounting, toxicity of materials etc.
 - Need for TVET to respond rapidly to changing skill needs in the economy as it transitions from the resource sector to innovative manufacturing and construction industries.

Case studies (1)

- Cooperative Research Centre (CRC)
for Low Carbon Living
 - Research to understand the requirements for infrastructure at the precinct level to enhance sustainable living.
 - Working with communities around draft proofing homes, energy efficiency measures, a food garden, walking, cycling or taking public transport to work, installing solar panels and switching to green power

Case studies (3)

- TAFE and its approach to green of skills
 - Melbourne Polytechnic Green Skills Centre
 - GreenStar” 5 Star Rating
 - Central Institute of TAFE Western Australia
 - the largest single grid-connected solar system in the Perth CBD
 - Swinburne University of Technology (TAFE)
 - National Centre for Sustainability (Education for Sustainability)
 - TAFE NSW - North Coast Institute of TAFE
 - Developed an environmental policy, engaged industry on sustainable practise, educated their own students and staff in learning for sustainability



Case Studies (4)

- **Sustainable Advantage Program NSW**
 - Over 530 businesses improved their environmental performance, reduced costs and added value to enhance corporate reputation
 - 3 learning modules to undertake including resource efficiency, carbon management and supply chain management



Major challenges to meet demand

- More technical and sophisticated skills needed by TVET teachers and trainers for the green economy
 - More professional development for TVET teachers and trainers in complex technical skills to create specialist teachers – Education about Sustainability
 - Education for Sustainability – systems thinking, problem solving, reflection and working collaboratively to resolve complex issues
- Lack of in-depth understanding of the emerging trends in industry to enhance the green economy.
 - Recruiting difficulties in skilled teachers in emerging technologies
 - Tighter relations needed between industry and TVET



Addressing green skill development

- **COAG Green Skills Agreement - a world first**
 - Backed by the Implementation plan and funding for a range of programs
- **The International Green Skills Network (IGSN)**
 - Established by TAFE Directors Australia with funding from GSA
 - Membership of over 30% of all TAFEs
 - Cooperative arrangements with the Sustainability Economic and Education Development (SEED) in the USA
 - Now managed by Sunraysia TAFE
- **South Australia – Green Industries program 2015**
 - \$4.1 M per annum for 3 years
 - Assist business to find new markets
 - Reduce costs through efficiency
 - Explore new technologies



Difficulties in implementing green policies

Challenges still to be addressed

- Upskilling more TVET teachers
 - More focus on developing specialist teachers in complex and technical skills needed
- Government commitment to a green economy
 - Only South Australia and the Australian Capital Territory (ACT) are committing to reduce emissions up to 60% and 80% respectively below 1990 levels by 2050
- Enthusiasm from industry
 - A complacency in industry – focussed on economic recovery and transitioning away from resource intensive industries to new manufacturing and knowledge based industries
 - Sporadic interest in pursuing a greener approach

In conclusion

- The Green Skills Agreement has had a significant impact on the TVET sector
- The TVET sector is transforming and delivering on Green Skills but more in-depth skills as well as a deeper understanding of EfS is needed
- More commitment from governments (Federal and State) is needed for a greener economy – that is a new narrative needs to emerge
- Industry yet to fully recognise the opportunities that the Green Economy presents

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THANK YOU