



**AGRI-FOOD
INDUSTRY SKILLS
COUNCIL**

Review of Australian Higher Education

Submission by

Agri-Food Industry Skills Council

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***‘Australia must be seen as the country that innovates
collaboratively – Team Australia’
Australia 2020 Summit***

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A highly skilled workforce is our competitive edge in the global economy. Only a national, integrated and streamlined vocational and higher education system which is led by industry will make this a reality.

The Agri-food Industry Skills Council is one of 11 Industry Skills Councils, funded by government to provide industry workforce intelligence. The Council covers the industry areas

- Food, beverage and pharmaceutical manufacturing
- Rural industries - agriculture, horticulture, animal care, and conservation and land management
- Meat industry
- Seafood industry
- Racing industry

Currently the sector accounts for about 800,000 jobs, and is the critical lifeblood of regional Australia. The industry represents more than 7% of GDP, generating over \$150 billion per year. More importantly, the sector has the capacity to provide food for 60 million people globally in a food critical environment. The industry has strong potential for the future due to global population and income expansion. The agrifood industry also accounts for over 14% of Australia's export earnings, further proving its economic importance for Australia.

The agrifood industry is, predominately a regional industry and in many cases the major employer for many of Australia's regional towns.

A main role of the Agri-food Industry Skills Council is to develop, maintain and implement industry agreed training standards from Certificate 1 to Advanced Diploma level. The Council has long argued about the disconnect between vocational education sector and higher education, and it is this that will be the focal theme of this paper.

Importantly, the Council calls the review panel's attention to an important theme from the Rudd government's 2020 Summit *The Productivity agenda – education, skills, training, science and innovation*.

The skills shortages that Australia is facing are creating a crisis in terms of the nation's future productivity. These shortages are largely the result of a deficit in the development of vocational and technical skills, rather than higher level university qualifications. If we are to tackle the shortages effectively, however, we need to take a broad, integrated approach rather than try to deal with specific areas in isolation.

p.10, Australia 2020Summit – Final Report

The agrifood industry is a long supporter of education, research and extension and is fundamentally aware of the importance of the higher education sector and its ability to deliver outcomes for Australian industry and individuals. However,

the industry also has an intimate understanding about scarce resources and the need to ‘make the most of what you have.’ It is this understanding that underpins the arguments presented in this submission – that is to compete globally the industry must ensure resources are used more effectively to ensure the best outcome for industry growth and innovation. There is poor collaboration in spending on education, training and research, which leads to duplication of effort and waste.

Australian companies spend more than \$30 billion each year to develop the skills of their employees, demonstrating the importance of highly skilled employees for economic competitiveness. Importantly, the VET system has developed Training Packages with Units of Competence which describe in detail 85% of jobs in the Australian economy. This means a set of national competency standards which are benchmarked nationally and internationally and agreed by industry, fulfill their skills requirements. Further, these standards underpin training suitable for entry level employees and existing workers needing to upskill and/or re skill.

The discussion paper makes many references to higher education ‘skilling for industry’ whilst also making the point of the lack of recognised industry benchmarks across universities and within universities from year to year. Accordingly, the higher education system has also been criticised for not providing industry with ‘work ready’ graduates. Without nationally recognised and benchmarked industry agreed standards it is impossible for the higher education sector to provide a consistent standard of graduate aligned with industry expectations. This is an area where the convergence of the two tertiary sectors could deliver more value and higher credibility across Australian industry.

The links between the education and training system, industry and the community need to be strengthened. Collaborative partnerships between industry and our education and training systems need to be encouraged and fostered. This will ensure that our education and training system can better equip people to meet the demands of the workplace.

*2020 Summit The Productivity agenda
– education, skills, training, science and
innovation p.21, Australia 2020Summit –
Final Report*

The *Environmental Scan of the agrifood industries*, also addresses the streamlining of education and training as a priority;

Integrated solutions to increasing enterprise productivity that intertwine world class training, extension and research services.

p.3, 2008

Importantly, this illustrates the detailed level of understanding within the agrifood industry and a desire to integrate learning at all levels.

Articulation and accessible pathways between VET and higher education are of great concern for the agrifood industry and must be made more accessible, streamlined and guided through meaningful industry agreed pathways.

*The pursuit of sustainable practices and maximization of resources is also seeing a growing demand for higher level technical and science based disciplines essential to modern agrifood such as researchers, scientists, engineers, animal technologists and veterinarians. **Pathways between VET and higher education** are critical if the industry is to recruit these workers and arrangements need to work both ways: enable technicians which have grown up with industry to gain higher level research and science based skills; while conversely, enable researchers and scientists to gain hands on experience in the industry through VET qualifications.*

p.4, 2008

There are many examples across agrifood where individual Training Providers and Universities have negotiated articulation pathways, and this is well regarded, especially in the science areas. However, a more integrated, national approach needs to be negotiated with agreed standards and articulation methods.

The poor connection between the VET sector and Universities is a major impediment to future growth and development of more knowledge driven agricultural systems. There is a serious danger that Australia will lose the competitive advantage enjoyed in international markets for many years due to the technical advances and innovation of our rural sector.

Much of the technical advances have been driven by a cohort of well trained and educated technicians and scientists trained during the 1960's and 1970's. Many of these people are now approaching retirement age and there is little prospect of replacing them with the existing intake and graduate numbers being generated by the University sector. (Quote Professor Jim Pratley, representing the Australian Council of Deans of Agriculture, – Canberra Agricultural Skills Round Table meeting 31st July 2008).

Current enrolments in Australian agriculture faculties are at critically low levels. Various factors are driving this problem with the main issues being competition from other sectors, the relatively poor image and financial rewards on offer in agriculture and the considerable expense incurred in gaining a degree through 3 or 4 years study at University.

There is considerable potential to attract significant numbers of enrolments into University programs by developing a standardized articulation pathway for VET sector graduates seeking to progress their careers. Such a pathway has been well established in the United Kingdom for many years and has served their industry exceptionally well. A significant proportion of British agriculture graduates progress from the VET sector and the general standard of graduates is excellent. The strength of this arrangement is that the UK universities produce

graduates who have excellent practical skills and are “work ready”. This is a well recognised and highly respected pathway in the UK.

A typical pathway for a British graduate would be:

Age	Activity
16 Year 10 school leaver	Completes BTEC First Diploma (equivalent to a Cert II Traineeship)
17	Completes in National Certificate in Agriculture (equivalent to Cert III)
18	Enrolls in National Diploma of Agriculture and completes 1 year “sandwich” industry experience
19	Completes National Diploma of Agriculture with one more year full time study (equivalent to Diploma of Agriculture)
20	Completes a Higher National Diploma (equivalent to Advance Diploma) This is offered by both the VET sector and University sector
21	Completes 1 further year at University to attain a Degree in Agriculture

We have in place the building blocks to build such a system in Australia and capitalise on the training activities already in place. The acceptance of Recognition of Prior Learning also offers considerable potential to ‘fast track’ experience workers who have developed extensive skills and knowledge through informal and workplace learning through the system into degree programs.

Another area requiring critical evaluation is the role of VET sector qualified staff in technical and scientific occupations. Traditionally, many positions have required a Degree qualification as a minimum where there is scope to redefine some of these to accept Diploma or Certificate IV level qualifications as appropriate.

Another area that is being recognised as an issue is the articulation pathway from higher education to VET. AgCredited is a national accreditation program for professionals working in agriculture and natural resource management.

The program was developed as an industry-based accreditation (quality assurance) scheme to meet the growing demand from farmers for increasingly higher levels of advice and support from farmers.

AgCredited is based on competency standards from the Rural Production, Amenity Horticulture and Conservation and Land Management Training packages. To become accredited as an advisor or consultant, candidates must meet specified national core and specialist competencies.

p. 14, Agrifood ISC – NSW Rural and Related Industries Skills Advisory Committee, Linking Extension and Industry Programs to Vocational Education and Training, 2007

Importantly, since inception, AgCredited has been widely accepted and synonymous in industry to 'superior professional advice and practice', and proves the benefits of a seamless system.

The *Environmental Scan* urges the reader to take away 3 key messages, one of them being;

VET is a critical strategy within our industry's broader approach to workforce development. It is fundamental to attracting new workers, and providing higher skills to our existing workforce. It must, however, be delivered as part of an integrated business solution which enables the diffusion of research and technology, diagnosis of skills needs, structured training, business management and planning and labour supply. In short, we need to bring together the organisations and initiatives that operate in this space and establish a systematic solutions driven approach to skilling the workforce.

p.2, 2008

The agrifood industry understands the value of research to enable innovation and capacity building. There are 12 research and development corporations across the industry and many more cooperative research centers. These are jointly funded through industry levies and government contributions.

The recent report from Agrifood ISC – NSW Rural and Related Industries Skills Advisory Committee, *Linking Extension and Industry Programs to Vocational Education and Training* exemplifies the level of support and commitment to research and innovation;

In 2001, farmers contributed nearly \$200 million in industry levies toward research and development corporations. The National Farmers' Federation identified that R&D investment is typically measured in funding contributions, however, the true measure of R&D success is best relayed in terms of on-farm benefits...

...It is essential that rural R&D corporations not only focus on finding answers to the questions facing Australian farmers, but also ensure that the outcomes of R&D are transformed into practical advice that can be directly integrated into farm management. However, in most cases, the potential of VET to deliver outcomes and support integration is yet to be realised.

p.13, 2007

This illustrates two critical points for consideration – firstly, the dissemination, and more practically, the implementation of research and innovation, and secondly the best use of research dollars considering the size of both the resource allocation and the critical mass of consumers in a country with a relatively small

population base. For example, multi national food processing companies based in Australia choose to undertake and test new research in bigger population centers to gain economies of scale to stay competitive in a volatile and ever-changing industry.

Australia must integrate the research dollar to stay competitive against bigger and more coordinated investors. This requires a harmonised approach across different research bodies and the whole tertiary education sector, including VET. A coordinated resource allocation must also consider industry specialisation, both at an education and research level.

Capacity building in rural communities and industries is a way of fostering innovation. For effective capacity building to occur there needs to be alignment between the goals and actions of those involved and all levels from education, training and extension. The Cooperative Venture for Capacity Building for Innovation in Rural Industries was formed to provide, through a coordinated program, the R&D basis for ensuring an effective rural industries extension, learning and education system.

Notably, this venture was initiated by Rural Industries Research and Development Council, a long dissenter of VET. Interestingly, this venture has embraced vocational education and promoting for the critical role it plays in workforce skilling and innovation. This exemplifies the great potential that integration can, and does, provide for the innovation and growth of the rural agrifood industries.

This response has shown the integral links between VET, higher education and research dissemination. It is the duplication of effort and resource across the education and research systems that require urgent attention. Importantly, the Council would like to stress the opportunity this review has to consider different and better ways to educate and innovate, across VET, higher education and use of research dollars in a country that is limited only by size.

R&D Corporations – notable Cotton and Grains – have recently recognised the need to focus more resources on human resource development. For example CRDC has recently released a new 5 year plan which focuses on 3 areas – on farm (production), off farm (processing and marketing) and human resources. The priority for human resources area is to adopt a “development” model with the focus on continued education, training and accreditation. This is an excellent fit with VET sector activities.

The Agri-food Industry Skills Council understands that there are many important aspects to this review; however the key point for training, education, and research and innovation for the agrifood industry is;

The establishment of an integrated, industry directed and specialised education and research system is the clever solution for better use of resource output. Importantly, it would ensure;

- Pathways of articulation between the tertiary sectors
- Industry benchmarked standards for graduates
- Better dissemination and implementation of research across all industry levels

An integrated education system is the solution for a streamlined system as agreed at the recent 2020 Summit. One of the ambitions from the productivity agenda education, skills, training, science and innovation was

- *The education system needs to operate seamlessly through schools, vocational education and training and higher education, which is not the case at present.*

An integrated approach that develops national collaboration across the education sectors, the numerous research bodies and is advised, owned and led by industry is recommended by the Agri-Food Industry Skills Council. Further, those specialisations be encouraged within these structures to ensure that research and innovation provide the most benefit for industry. The future will not be well served by the continuation of this disconnect between the VET sector and the Universities. Old thinking and old prejudices are stifling innovation and the opportunity to develop a world class education and training system for the future.