

## A Response: Australian Universities Accord - Interim Report

### The Tertiary Sector

During the August 21st webinar it was gratifying to hear the inclusive phrase Tertiary Sector. After all, it will take a concerted effort - from all higher education and vocational training providers - to produce graduates that will satisfy the Australian industries of the future. To focus only on government-funded universities and TAFEs will limit the solutions that are sought.

There is a tendency to overlook the contribution made by independent providers, and yet many produce excellent graduates, they are responsive to industry needs, and are more agile than their government counterparts.

For example, the Engineering Institute of Technology has recently had two new VET qualifications accredited (thanks to our incredible regulator the Training Accreditation Council of Western Australia - TACWA):

- Graduate Certificate in Hydrogen Engineering and Management
- Graduate Certificate in Internet of Things (IoT) for Engineering (Foundations)

And ten micro-credentials are in development for scheduling early in 2024. Five of them are listed here:

- Green Hydrogen Technology
- Carbon Capture, Utilisation, and Storage
- Solar Energy Systems
- System Safety and Risk Management
- Data Engineering Foundations

### Facilitating life-long learning and bridging the VET – HE divide

It is a common refrain that school graduates will continue to study throughout their lives. This fairly new phenomenon is due to the dynamic nature of industries, and because career changes are becoming more commonplace.

The following are critical to their success:

- Study pathways which facilitate progress from one sector to another.
- Qualifications and micro-credentials which are driven by industry, continuously improved, and result in real job opportunities.
- Further learning which can be completed alongside full-time work.

The Engineering Institute of Technology (EIT) is committed to lifelong learning and providing students with seamless academic pathways from VET through to HE (and indeed back again).

<https://www.eit.edu.au/why-eit/study-pathways/>

EIT is a dual-sector, independent engineering education provider. Students are based in Australia and in over 150 countries, and currently exceed 3000.

For 15 years EIT has used an online learning platform. Webinar sessions are scheduled and they are delivered in real time to enable interaction. For practical applications students access remote labs (connected to real equipment), virtual labs and simulation software. (There are physical labs at various locations for students without the relevant industry experience.)

EIT's instructors and lecturers require industry experience and the requisite academic qualifications. And critically for remotely-based students: dedicated Learning Support Officers guide them from enrolment through to graduation.

In 2008, as a registered RTO, EIT began delivering online accredited advanced diplomas, a number of Training Packages and unaccredited micro-credentials. The latter, under the auspices of sister company IDC Technologies, have been running worldwide for over 30 years, but now are largely presented online and more occasionally on-site.

In 2014, as a registered HE provider, EIT began offering online bachelor's and master's degrees (and more recently a doctoral degree) to nationally and internationally-based students. In 2018, with CRICOS registration, EIT opened a campus in Perth and Melbourne.

EIT's VET and HE qualifications are also accredited by Engineers Australia and are therefore recognised by the International Engineering Alliance.

EIT has a tight and workable connection between VET and HE – this is explained below.

## **An age of disruption**

The Fourth Industrial Revolution is characterised by disruptive technologies and a range of trends driven by knowledge and software. It is having a major impact on jobs and therefore also impacts training and education. EIT, in response, decided that the module should be the component used to structure the accredited advanced diplomas. A module, by definition, describes a body of knowledge and concomitant skills.

## **Education and training in an environment marked by massive growth in knowledge**

Knowledge is a key driver where there is strong growth in artificial intelligence, software use, data communications and the automation of processes. Many skilled tasks (usually and originally acquired within VET) are now automated; making it necessary for practitioners to constantly adapt. At the higher AQF levels – diplomas, advanced diplomas and graduate certificates - students are managing more cognitively demanding work. To be effective they require the knowledge 'around' the skills they learn for a deeper understanding of the context in which the skills exist. When disruptive technologies impact their industries, they are then better able to proficiently and flexibly manipulate their skills and remain relevant. Courses structured using modules are the key.



### **Modules tie the VET and HE sectors together, they motivate students and suit employers**

Modules are critical to the integration of the training and education sectors; they form a meaningful bridge between VET and HE. They are structurally similar to units used in degrees and therefore prepare students for success when transitioning into HE. The familiarity imbues them with confidence. Many hundreds of students make use of the credit gained from EIT advanced diplomas to pursue EIT BSc degrees. Similarly, they transition from undergraduate to postgraduate degrees.

A related factor involves assessment. Units of competency deem a student 'competent' or 'not-yet-competent', whereas modules are graded; this aligns with the structure of units in HE. In EIT's experience, grades encourage excellence in students. And the students' employers (across Australia and abroad) firmly support their use; they report that they can better monitor student progress and assess staff for promotion.

### **The modern training environment of online or blended learning suits modules**

Technology Enhanced Learning has gathered pace. In this environment the content being delivered, the assessments, and practicals are mainly knowledge-based (with the requisite physical skills being learnt on the job). This makes the application of modules particularly apt.

Despite this, Certificates I – III, including apprenticeships, need a unified framework which is actively supported by the Commonwealth: units of competency are ideal when acquiring skills at this level. A student needs to be deemed competent when laying a section of conduit or performing a task safely, for instance. It would be difficult to grade such outcomes; the student has either performed the task safely or not.

### **In a Nutshell**

An holistic, adaptable, and industry-responsive education system - that bridges the gap between vocational training and higher education - will enable students acquire the skills relevant to the changing landscape, and will ensure they contribute productively in various sectors, into the future.

There are three critical points. Firstly, the review needs to consult the tertiary sector as a whole to avoid compromising the effectiveness of the report's recommendations. Secondly, greater integration between the VET and HE sectors is fundamental to the success of the Australian economy; this will provide seamless educational pathways and address the evolving needs of the workforce.

Lastly, the final report requires a considerably more detailed assessment of online learning. Recognising the potential of online platforms to effectively reach and engage students is paramount to shaping an inclusive, comprehensive, adaptive and future-oriented education landscape.

