

Degree apprenticeships – a vital initiative to help industry get graduates with the work skills they need

A degree apprenticeship is a work-based degree with on-the-job practical training. Apprentices are employed in industry full time and study part-time, on either day or block courses. They work on business-focused projects and assessments, usually based on problems or opportunities in their own workplaces.

HUGE POTENTIAL BENEFIT FOR ALL INVOLVED

Engineering e2e is promoting the advantages of a degree apprenticeship programme, as we see huge potential benefit for all involved.

The programme integrates academic learning and practical training and is an opportunity to help alleviate skills shortages. Employers and institutes of technology and polytechnics (ITPs) can design programmes to produce engineers with the industry-specific knowledge and skills required in the workplace.

Degree apprenticeships offer scope to establish a new pathway to attract different types of learners. Once degree apprenticeships are established we hope to see widening participation and social mobility as has happened with overseas models, and a consequent impact on local economies.

Students who do not meet standard entry criteria will be able to do additional assessment tests, and those already in learning or industry may be accredited for prior learning or work experience.

Benefits for learners

The degree apprenticeship is an 'earn as you learn' programme, with benefits for students and those already in the workplace. These include:

- Gaining an engineering degree without building up significant debt
- Getting four years of relevant industry work experience
- Expecting good pay and excellent employability prospects at the end of the apprenticeship
- Opportunities for career progression and an increase in potential earning power
- Existing employees boosting their progression prospects by developing new skills and gaining qualifications
- Contextualising learning by combining practical and theoretical skills.

Industry involvement is key to the success of Engineering e2e's degree apprenticeship programme. Engineering employers drive the process, working with the support and guidance of curriculum developers in the tertiary education sector.



Benefits for employers

The benefits for those employing the apprentices include:

- The opportunity to attract excellent talent, especially in skills shortage areas
- Developing current employees by offering a full career ladder, improving motivation and retention
- Growing the engineering profession as a whole
- An opportunity to influence degree content and delivery
 - Public relations and corporate social responsibility opportunities through publicly supporting young people to access work.

Benefits for ITPs

Institutes of technology and polytechnics (ITPs) benefit through:

- The opportunity to engage more closely with employers
- The opportunity to attract new students
 - Establishing a new route to attract different types of learners
- Widening participation and social mobility
- A consequent impact on local economy and skills shortages
- A platform to innovate
- A diversified income stream
- Raising the profile of the ITP.

THE DEGREE APPRENTICESHIP MODEL

Engineering e2e began exploring the potential of degree apprenticeships in 2015. The Steering Group recommended that TEC commissions Professor Jane Goodyer of Massey University to investigate the viability of the degree apprenticeship model in New Zealand.

The report **Stepping into one another's world** endorsed the model and emphasised the need for collaboration between employers and educators at the design and planning stage, and that employers should specify standards that are outcome-based and occupation-driven.

Based on a UK model

In July 2016, Engineering e2e recommended a follow-up study to investigate the effectiveness of the degree apprenticeship model offered by **Manchester Metropolitan University (MMU)**. The study concluded that this model is the most appropriate for the New Zealand context. You can read about MMU's programme in the report **Degree Apprenticeships: a year in review**.

Early in 2018, the team at MMU reviewed progress on our degree apprenticeship pilot to date and considered it to be well thought-out, appropriately structured, and that it addresses the key elements for success. MMU noted



that these factors align with what the UK experience has demonstrated is essential to success, most notably the need to be employer-led.

ENGINEERING E2E'S PILOT DEGREE APPRENTICESHIP

Engineering e2e's pilot has a focus on Infrastructure Asset Management but we intend that this will be a model for degree apprenticeships in any field of engineering.

Phase 1

In March 2017, Professor Goodyer led work to develop a degree standard in collaboration with the Institution of Public Works Engineering Australasia – NZ Division (IPWEA).



A PILOT STUDY OF THE APPLICATION OF DEGREE APPRENTICESHIPS IN NEW ZEALAND: A FOCUS ON INFRASTRUCTURE ASSET MANAGEMENT

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An apprenticeship standard was written after extensive consultation and workshops with these key stakeholders and presented to Engineering e2e at the end of June. You can read about their work in the report

The application of degree apprenticeships in New Zealand.

Phases 2-3

Phase 2 is underway, with IPWEA, WelTec and Otago Polytechnic working together to complete the pilot programme in readiness for 2019.

Phase 3 includes rolling out the programme next year and designing the pilot evaluation.

Industry involvement is essential to success

Industry involvement is key to the success of Engineering e2e's degree apprenticeship programme. Engineering employers drive the process, working with the support and guidance of curriculum developers in the tertiary education sector.

FIND OUT MORE...

Updates on Engineering e2e's degree apprenticeship programme will be available in the Our progress section of our website and through our monthly **newsletters**.

More information on the Engineering e2e programme can be found at www.engineeringe2e.org.nz