

Six key Engineering e2e initiatives to help grow the engineering graduates New Zealand needs

A recent evaluation assessed Engineering e2e in its role as a systems integrator, and has focused our plans for the programme over the next two years through six key initiatives.

Systems integration is a high-level, flexible, all-encompassing approach that catalyses, coordinates and monitors activities. Evaluation tells us that a designated integrator has an important role to play in supporting the engineering education-to-employment system. Our workforce development approach focused on coordinating individual opportunities, organisational goals, and national priorities for economic growth.

Now Engineering e2e's ongoing challenge is to increase the number of Level 6 and Level 7 graduates. To help achieve this, we have identified six key initiatives for the next two years:

- Micro-credentials
- A diverse engineering workforce
- A new approach to qualifications delivery
- Continuing our work in the compulsory education sector
- Growing the pipeline of work ready engineers
- Engineering education hubs – a new system?

Micro-credentials

Micro-credentials are packages of learning designed to meet specific learner needs. They are generally smaller than conventional qualifications, and are emerging as an important part of the mix of alternative credentials.

Our work prioritises the uptake of the New Zealand Diploma in Engineering (NZDE) in engineering disciplines that have been under-served, and for people in employment.

A diverse engineering workforce

Engineering e2e is funding Te Tapuae o Rēhua to implement a programme that will more than double the number of Māori engineering graduates from Ara Institute of Canterbury (Ara) and Otago Polytechnic by 2021.

This project will leverage collaboration between Ngāi Tahu, key industry employers, engineering tutors and students to create successful engineering education and employment outcomes.

A new approach to qualifications delivery

The degree apprenticeship is a work-based degree that is intended to integrate academic learning with on-the-job practical training. The degree is co-designed by employers



and ITPs, with employers leading the process with support and guidance from curriculum developers.

Engineering e2e is funding WelTec and Otago Polytechnic to implement a degree apprenticeship.

Continue our work in the compulsory education sector

Continued support for six collaborative initiatives between secondary and tertiary institutions to deliver programmes to prepare and pathway students into tertiary engineering study.

Growing the pipeline of work ready engineers

Continued support for Ara's work to facilitate collaboration between industry and educators to improve the relevance of engineering education.

Engineering education hubs – a new system?

Perhaps the most radical of our next steps is to explore the establishment of engineering education hubs.

We envisage hubs as collaborative, regionally-based centres for engineering education which involve employers, high schools, universities, institutes of technology or polytechnics (ITPs) and industry training organisations (ITOs). They would develop popular and effective pathways into engineering and offer a single entry point for engineering qualifications. Hubs would support students to make good decisions about their courses of study and allow them to staircase between qualifications.

FIND OUT MORE...

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