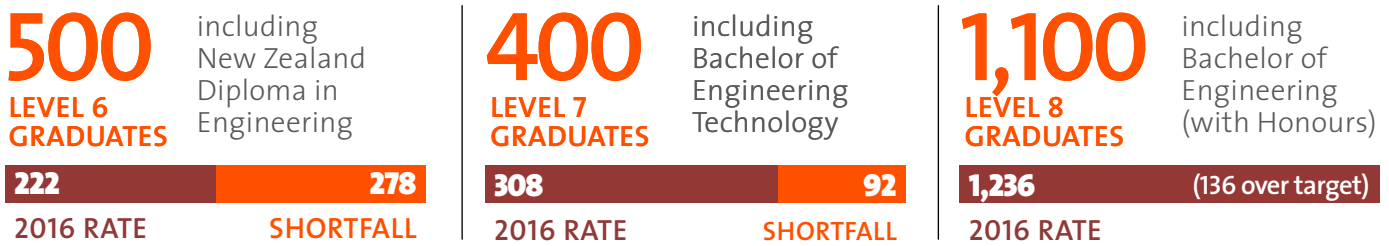


Our shortfall in ITP-educated engineers

The New Zealand Government has set a goal of increasing engineering graduates by 500 per annum. This goal was set in response to NEEP Project research that forecasts future shortages of engineers, produced by the Institution of Professional Engineers New Zealand (IPENZ).

The NEEP Project Governing Group identified a particularly urgent need to increase the numbers of New Zealand Diploma in Engineering (Level 6) and Bachelor of Engineering Technology (Level 7) graduates – qualifications taught by New Zealand’s Institutes of Technology and Polytechnics (ITPs):

To meet New Zealand’s current engineering requirements, we need:



These numbers speak for themselves. To provide for our **current engineering needs**, we need to more than double our numbers of NZ Diploma in Engineering (NZDE) graduates and produce almost a third more Bachelor of Engineering Technology (BEngTech) graduates. These are our initial and minimum targets – an **innovation-led economy** will require hundreds more graduates at each level annually.

NZDE and BEngTech graduate profiles



Sapoa Rimoni NZDE (Civil)
Manukau Institute of Technology
Site Engineer, Hawkins Infrastructure

“I operate as a site supervisor – the liaison between subcontractor, site team and site managers. My current job is to ensure key tasks are done on a massive infrastructure project to widen Fred Taylor Drive.”



Amy O'Donnell BEngTech (Civil)
Unitec
Site Engineer, Fulton Hogan

Amy does planning construction work, organising materials and machinery, and ensuring the quality of the work is up to standard. “My job is very practical – it involves the real world rather than theory.”



Brendon Clarke BEngTech (Mechatronics)
Weltec
Electrical Engineer, AECOM

“I design new and upgrade existing electrical equipment such as power cabling, electrical distribution, instrumentation and computer-based control systems.”



Simon Bradshaw BEngTech (Civil)
Ara Institute of Canterbury
Civil Engineer, Riley

“I do predominantly field-based work undertaking geotechnical investigations or monitoring construction works. I also do some office work, including writing reports.”

The role of our ITPs

New Zealand’s high-performing ITPs:

- deliver core vocational qualifications relevant to the national and regional labour market – providing national qualifications, and working closely with ITOs to share information and provide appropriate pathways for learners
- work flexibly with local schools, community groups and iwi, including through formal arrangements, to support young people to access tertiary study for the first time
- deliver foundational education that allows learners to acquire literacy, language and numeracy skills in a context relevant to them
- provide formal pathways for learners to staircase from lower-level or generic programmes into higher-level or specialised study within the ITP or at another TEO
- work with local businesses to find effective solutions to business problems.