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- *IPWEA NZ's Fostering Our Future*
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## FROM THE CHAIR . . .

AS A RESULT OF THE NZCER evaluation of *Engineering e2e as a systems integrator we are focusing our activity on six key initiatives:*

- *Micro-credentials*
- *A diverse engineering workforce*
- *A degree apprenticeship programme*
- *Continuing our work in the compulsory education sector*
- *Growing the pipeline of work-ready engineers*
- *Engineering education hubs – a new system?*

*To keep up to date with what we're doing in each initiative, I encourage you to look at the various info sheets and progress updates we publish on our website – [www.engineeringe2e.org.nz/our-info-sheets](http://www.engineeringe2e.org.nz/our-info-sheets).*

*In our [degree apprenticeships info sheet](#) we explain why Engineering e2e is promoting degree apprenticeships, the benefits for learners, employers and tertiary institutions, our commissioned research into degree apprenticeship models, and the pilot programme to be launched in 2019.*

*You'll also find new material on our [micro-credentials feasibility studies](#) and our most recent [case study](#) features what we've learnt from the [Secondary-Tertiary Pathways Projects](#) so far.*

SIR NEVILLE JORDAN  
*Chair, Engineering e2e Steering Group*

## Engineering e2e's position on micro-credentials

Engineering e2e is investing in eight feasibility studies for micro-credentials. We are working on a 'whole-of-workforce development pipeline' approach to micro-credentials which explores their feasibility at secondary, tertiary and postgraduate levels.

The Engineering e2e Steering Group welcomes the NZQA proposal to recognise micro-credentials and has made a submission as part of the recent consultation. We think NZQA's proposal could be bolder and have greater alignment to wider Government goals, including those for tertiary education and engineering.

Engineering e2e recommends that:

- NZQA take a more deliberate approach to developing a series of nationally recognised frameworks; allowing learners to aggregate sets of micro-credentials to get at least partial credit toward a whole qualification.
- There are systematic processes in place for recognising prior learning and competency among people in employment.
- Steps are put in place to maximise the uptake of micro-credentials, particularly aimed at the process of offering micro-credentials in identified areas of high/ immediate need for employers.

The Steering Group hopes that any approach to micro-credentials taken by NZQA ensures their potential can be fully realised.





## IPWEA NZ's FOSTERING OUR FUTURE – A PROACTIVE APPROACH TO SKILLS SHORTAGE

IPWEA NZ's Fostering our Future programme is a great example of a professional organisation taking a proactive approach to a skills shortage – within it, IPWEA NZ is supporting the development of a degree apprenticeship and is undertaking a micro-credentials feasibility study.

The New Zealand division of the Institute of Public Works Engineering Australasia (IPWEA NZ) is serious about making a difference – so serious it has spent two years consulting its members and researching to develop a range of possible initiatives.

The need for their Fostering our Future programme is clear:

- One in three public works professionals are due to retire within the next 15 years, this is one in two for regional New Zealand.
- Only one in six public works professionals are women.
- Approximately 12,000 more engineering professionals (in all disciplines) will be needed in New Zealand by 2025 (MBIE Long-term Labour Force Projections, Dec 2016).
- Over \$100 billion of investment in infrastructure is scheduled from 2016 to 2026 (New Zealand Treasury). This is the financial equivalent to building a new Waterview Tunnel every two months (\$1.4bn).

IPWEA NZ believe its plans provide solutions for a broad range of infrastructure providers. IPWEA has consulted with other engineering bodies including Engineering NZ, Water NZ and ACENZ to raise support.

The programme they've developed will cover all local and central government infrastructure owners, their respective

suppliers and private infrastructure owners.

IPWEA NZ wants to:

- Define a shared vision for the sector.
- Increase the uptake of qualifications in infrastructure asset management through collaboration with educational institutions.
- Formally capture sector knowledge through publication of case studies or historic documentation of infrastructure.
- Establish career pathways through collaborative student and graduate programmes and formal public works professional accreditation.
- Enhance the career options of mid- and senior-level employees (through, for example, sabbaticals).
- Improve the image of the public works sector.
- Promote the sector to primary, secondary and tertiary education providers.

It's a long list of to-dos, which a project manager will facilitate over a five-year time frame. IPWEA NZ is interested in feedback on its plans and, of course, needs to find some money to get things underway. A comprehensive business case was submitted to the Engineering e2e Steering Group for feedback and the response was generally positive.

For more information contact [engineeringe2e@tec.govt.nz](mailto:engineeringe2e@tec.govt.nz)

## THE ITP ROADMAP 2020 – PLANNING FOR A SUSTAINABLE FUTURE

The ITP (Institutes of Technology and Polytechnics) Roadmap project team is mapping out the process for working towards a sustainable future for the sector over the next four months.

The high level approach is:

- A detailed problem investigation – to gain a better understanding of the challenges, how they manifest across the ITP sector and how they are likely to change over time
- Opportunities analysis – looking at the main opportunities to improve provision and sustainability through greater collaboration or removal of duplication.

- System options analysis – analysing wider options for the organisation of the ITP sector, the best form to obtain the opportunities identified as well as one that can adapt to future challenges. This work will consider the issues of practicality, costs and risks of transition.

Extensive, regional engagement is planned with ITPs, from councils, management, staff and students as well as the wider sector including industry, unions, local government, Māori and Pasifika. The Tertiary Education Commission will advise the Minister on options for the future of the ITP sector in September 2018.

IF YOU HAVE ANY ENQUIRIES, PLEASE CONTACT US: ENGINEERING E2E PROGRAMME TEAM

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