

IN THIS ISSUE ...

... we look at the new discussion document that aims to distil the aspirations and future focus of the Engineering E2E project. We also feature another of the many case studies you can find on our website – www.engineeringe2e.org.nz

AS PROMISED in our January newsletter, you'll find a roundup of Engineering E2E's work to date and plans in the 'Make the World' infographic which features as this month's lead story.

I urge you to review this discussion document and to provide feedback to the Engineering E2E team on the findings and suggested actions. Decisions are being made over the next few months which will set the direction of any actions we recommend and take.

Ultimately, our success depends on engagement across the engineering sector so please share this newsletter and invitation to provide feedback with your colleagues and associates.

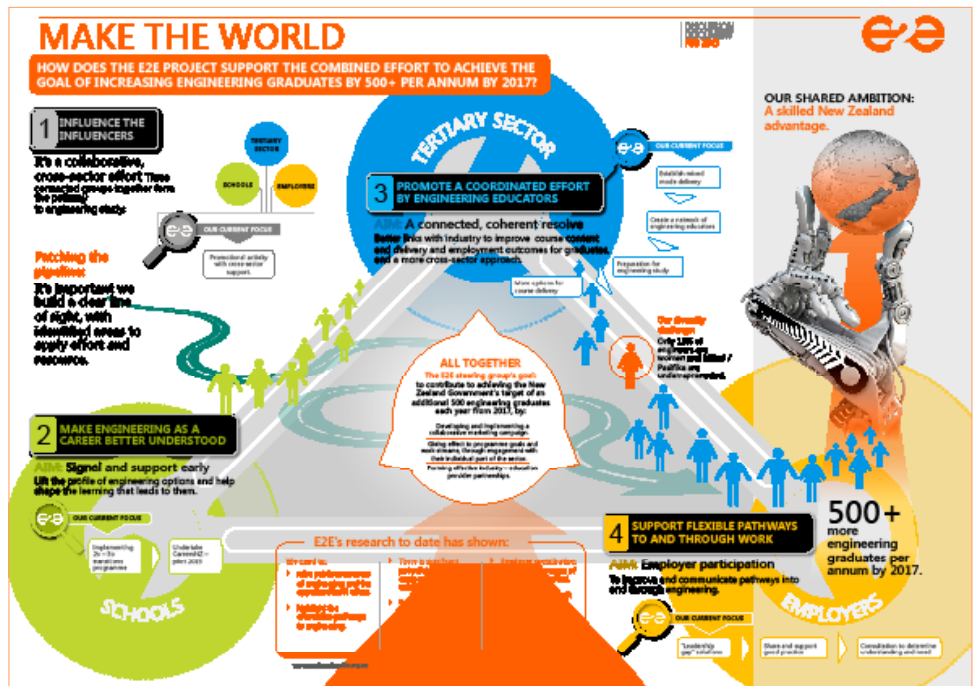
The Steering Group's most immediate task is to agree a report and set of recommendations which will be presented to Minister Joyce in March. This report will expand on material covered in 'Make the World' including a set of recommendations for future actions.

The engineering E2E team will continue to consult with stakeholder groups and have identified several more stories of good practice to feature on our website.

SIR NEVILLE JORDAN
Chair, Engineering E2E Steering Group

'Make the World' – a discussion infographic for all parties

The Engineering E2E steering group has developed a new infographic that examines how the project can best support the combined effort to achieve the goal of increasing engineering graduates by 500+ per annum by 2017.



Engineering E2E's research to date has shown the following:

- We need to raise public awareness of engineering and the opportunities it offers.
- We need to highlight the alternative pathways to engineering.
- There is significant potential benefit to engineering educators working together.
- We need to target bridging courses as a means of supporting entry into qualifications.
- Employers will benefit from improving recruitment and retention practice.
- Employer contribution to public awareness of engineering is critical.

The 'Make the World' document came out of this research, distilling what we know about the challenges to increasing engineering graduates, and what we'd like to do about it.

FOUR MAIN AREAS OF ACTIVITY

Activities in the infographic fall under four headings:

1. Influencing the influencers
2. Making engineering as a career better understood within the school sector
3. Promoting a coordinated effort by engineering educators within the tertiary sector
4. Working with employers to support flexible pathways to and through work

Influencing the influencers

To achieve the challenging target of 500+ more engineering graduates per annum by 2017 will require a collaborative, cross-sector effort from the three groups that together form the pathway to engineering study: schools; the tertiary sector; and employers.

There is a further diversity challenge – only 13% of engineers are women, and Māori/Pasifika are underrepresented.

It's important we build a clear line of sight, with identified areas to apply effort and resource.

Our current focus is on promotional activity with cross-sector support.

Making engineering as a career better understood within the school sector

Our aim is to signal and support early, to lift the profile of engineering options and help shape the learning that leads to them.

Our current focus is on:

- implementing secondary-tertiary transitions programme
- undertaking a CareersNZ pilot in 2015.

Promoting a coordinated effort by engineering educators within the tertiary sector

Our aim is a connected, coherent resolve, to create better links with industry to improve course content and delivery and employment outcomes for graduates, and a more cross-sector approach.

Our current focus is on:

- establishing mixed mode delivery
- creating a network of engineering educators
- preparation for engineering study.

Supporting flexible pathways to and through work

Our aim is to improve employer participation – to improve and communicate pathways into and through engineering.

Our current focus is on:

- 'leadership gap' solutions
- sharing and supporting good practice
- consultation to determine understanding and need.

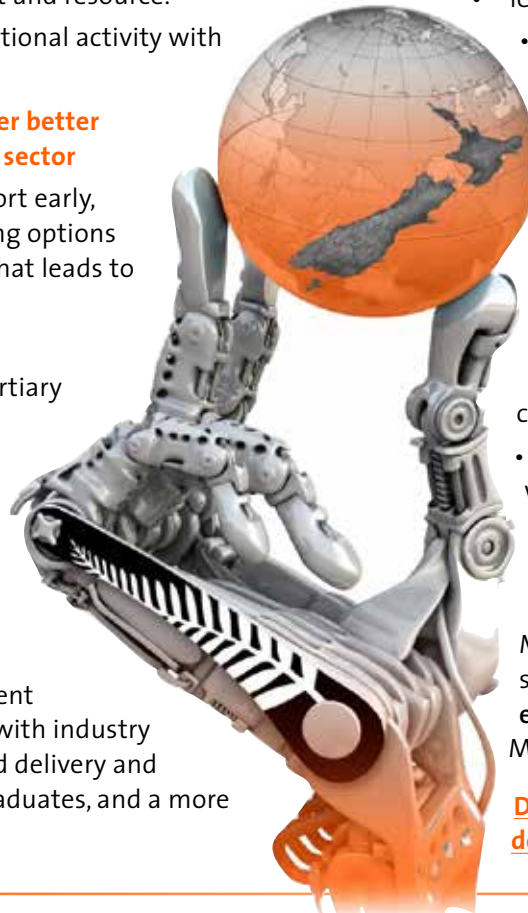
IN SUMMARY

The Engineering E2E steering group's goal is to help in achieving the Government's target of an additional 500 engineering graduates each year from 2017, by:

- developing and implementing a collaborative marketing campaign
- giving effect to programme goals and work streams, through engagement with their individual part of the sector
- forming effective industry – education provider partnerships.

Make the World is a discussion document, so we'd like your feedback. Email us at engineeringe2e@tec.govt.nz or give Project Manager Angela Christie a call on **04 462 5256**.

[Download the MAKE THE WORLD discussion document.](#)



Engineering – where theory meets practice

Inaugural Beca Scholarship winner Allie Foote features in one of Engineering E2E's many online case studies.

Allie has just finished the second year of her BEngTech, in Mechanical Engineering at WelTec, and loves it. "Through the BEngTech you can combine theory with real-life application. In one of my favourite projects we designed and constructed a rubber band-powered car. We had to determine how to get the car over an incline, factoring in stretch, power and so on."

All this takes place in small classes, with supportive tutors who push their students to achieve. "We've also had communications and professional engineering development classes. I didn't see their importance at first, but quickly found them to be really useful."



Allie is considering a career in HVAC (heating, ventilation and air conditioning), traditionally a male-dominated field. "But don't look at it as a male career," she says, "see it as a career where you can meet like-minded people who enjoy problem-solving."

For the full case study, see: www.engineeringe2e.org.nz/Employers/Case_study.cfm?ID=15