



e-news for schools

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Hundreds of students challenged and rewarded

As we approach the end of the term, many schools are celebrating the completion of long-term projects supported by Futureintech and local industries.



Transpower Neighbourhood Engineers Awards

Judging has just ended for this year's Transpower Neighbourhood Engineers Awards, and the results are impressive all around. We received 39 projects from schools around the country, up from 24 entries last year.

Techlink Project Coordinator Glynn McGregor was one of the three judges for the competition. He is very impressed with how much the quality of the work has improved over the years. "There's much more ownership of the projects by the students," he says. "The kids are generating the issue, looking at the problem and trying to address it."

In the Year 9-13 category, the top prize of \$1,000 goes to **Lindisfarne College** for student Thomas Daulton's pathway gate design for the Rotary Pathway Design Challenge. Thomas was mentored by Andy Gunson from Transfield Worley. **Rangiora High School** and the **Trident High School Special Ed Centre** both won \$500 merit prizes in this category.

There were three \$1,000 winners in the Year 5-8 category: **St Mary's Catholic School's** "Junior Playground" project supported by Ros So-Ber from Sigma Consultants, **Torbay Primary's** "Stage Challenge" project supported by Andrew Congalton from Engineering Design Consultants, and **Glenfield Primary's** "Gate Engineering" project supported by Michael Blucher from Riley Consultants.

There were eight Merit Award winners in this category, which says a lot about the level of quality for this year's

Thomas Daulton with Neighbourhood Engineer Andy Gunson

competition. Congratulations to **The Gardens School, Maranatha Christian School, Pacific Christian School, Havelock North Intermediate, Otumoetai Intermediate, Birkdale North Primary, Willow Park School** and **Sunnybrae Normal School**.

The Year 1-4 category has three \$500 winners: **Parkview School, Goodwood School, and Royal Road School**.

NZIFST/CREST Student Product Development Challenge

This competition challenges students to develop a new food product with the support of professionals in food science and technology. Teams often visit their mentors in the workplace, use company facilities and tour processing plants as they complete their projects.

Seventeen schools entered this year, all of them with great ideas. Futureintech Facilitator and NZIFST Careers Coordinator Jenny Dee has been doing some great work supporting and promoting the competition.

The winning teams are **Botany Downs Secondary College** for their "Just Juice Guash" beverage, supported by Nicola Dale and Robert Lethbridge from Frucor; **Wellington High School** for their "C-Monster" milk-based sports drink, supported by Eileen Basher from Kooba Ltd NZ; and **Kavanagh College** for their biodegradable plant pots made with malt grain left over from the brewing process, supported by Chris O'Leary from Emerson Brewing.

Congratulations to all the schools who entered these competitions for a job well done.

Evaluation spotlights Futureintech's effectiveness

The latest evaluation report from the New Zealand Council for Educational Research (NZCER) provides some great perspective from teachers on Futureintech's effectiveness.

No-one has a better understanding of what students need than their teachers. So when IPENZ commissioned NZCER to evaluate Futureintech's performance in schools, getting teachers' input was crucial.

The results show that Futureintech Ambassadors have a strong reputation as a valuable resource for schools. "It's fantastic to have young people who can relate to the students and talk about their career pathways and interests," one respondent said. "It is great to have an opportunity to talk with such positive role models. It really engages students when they are able to be part of experiments and the interactive side of presentations."

Teachers invite Ambassadors to their classrooms for a variety of reasons. The survey shows that the highest-priority goals are to get students excited about technology, engineering and science and to give students an opportunity to meet a professional in these fields. Other goals are to assist students with a project, inform them about career options and help them make decisions about secondary and tertiary subjects.

In general teachers are very positive about Futureintech's ability to meet those goals. Respondents agreed that their students were interested in the Ambassadors and connected with them. They found that the content covered by the Ambassadors was easy to understand and relevant to what the students were studying. The majority of teachers reported that their students discussed what the Ambassador said or did when the visit was over.

Along with this vote of confidence, teachers had some good feedback on how everyone can get the most out of Ambassador visits. Some respondents noted that it's helpful



Ambassador Nilesh Redekar, Christchurch City Council traffic engineer, helps with a project at Aidanfield Christian School.

when Facilitators provide them with a list of Futureintech classroom activities so they can see which ones are related to curriculum topics. They also requested more hands-on, interactive activities and suggested that a greater level of communication between teachers and Ambassadors will ensure that visits are pitched to the right level of learning.

Based on this insight and the recommendations from the Council's report, Futureintech is exploring the possibilities to develop our services and strengthen our partnerships with educators and careers advisers. We're looking at new ways that teachers, Facilitators and Ambassadors can share ideas and support each other.

A few schools are already working with Futureintech to plan Ambassador visits and classroom activities for 2011. Contact the Facilitator in your area if you'd like to get involved.

For the best careers advice: 'Talk to the workers'

A survey from the Workchoice Trust highlights the importance of students talking to professionals as they plan their careers.

“TALK TO EVERYONE ABOUT WHAT THEY DO for a job,” one New Zealand professional urges students. “There are so many jobs that aren’t talked about.”

“Don’t restrict your options – be open,” says another. “Studying the subject matter and working in the industry could be quite different.”

These are just a couple pieces of advice that came out of a new survey by the Workchoice Trust, a not-for-profit organisation based in Auckland. Established in 1994, they host the annual Workchoice Day, which is designed to give Year 12 students exposure to different career paths and help them make informed decisions.

The survey, completed by 229 professionals who are predominantly age 24 or older, underscores how important it is for young people to interact with a variety of

professionals and ask them questions about the work they do. Many students approach tertiary study and career plans with a limited idea of how many opportunities there really are.

A significant majority, 79%, didn’t feel they had adequate access to good careers advice in high school. 82% of respondents said they didn’t have a clear understanding of their chosen career path when they left school or graduated, and 52% said they would chose differently if they could turn back the clock.

Kathy McCombe, CEO of the Workchoice Trust, says, “The survey has confirmed the importance of programmes such as our Workchoice Day, and how critical it is that young people have the opportunity to talk to people in the workplace prior to embarking on career decision-making.”

When asked what advice they would give to their 18-year-old selves, more than half of the respondents to the survey recommended doing careful research into the options available to them.

“Follow your heart,” one respondent says, “but also try to learn as much as possible about all the career options available, as you would be surprised at how many things you are naturally good at but no one told you about it!”

Many agree that talking to professionals in these fields is the best way to learn. “Find out about as many different careers as possible by talking to people,” says one. “Don’t restrict yourself just to considering subjects at school that you were good at; get feedback from others as to your strengths.”



Another respondent sums it up this way: “Learn, experiment, explore, gain qualifications, take risks.”

You can find out more about the Workchoice Trust at their website, www.workchoice.co.nz.

IPENZ Foundation Scholarships

Students still have two months to send in their applications for the latest round of IPENZ Foundation Scholarships.

The IPENZ Foundation is a Charitable Trust formed by IPENZ to encourage New Zealand school leavers into tertiary education in the fields of engineering and engineering technology.

A number of scholarships are available in the 2011 scholarship year. As well as the national scholarships, which

are available to students from anywhere in New Zealand, IPENZ Branches are co-funding four other scholarships:

- The IPENZ Foundation/Taranaki Branch 2011 Scholarship, targeted at students from the Taranaki region.
- The IPENZ Foundation/Hawke's Bay Branch 2011 Scholarship, targeted at students from the Hawke's Bay and Gisborne regions.
- The IPENZ Foundation/Nelson-Marlborough Branch

2011 Scholarship, targeted at students in the Nelson-Marlborough Branch region.

- The IPENZ Foundation/Auckland Branch 2011 Scholarship, targeted at students from the Auckland region.

Students from anywhere in the country are encouraged to apply for any and all of the 2011 scholarships.

The closing date for applications is 10 January 2011.

Ambassador Profile



ADRIAN HOGGARD
*Product Development
Technologist
Heinz Wattie's Petfood*

People want a range of choices when it comes to the quality, ingredients and cost of pet food. Adrian develops new products and modifies existing ones to meet the needs of both the customers and their pets.

"My job has a lot of room to be creative," he says. "I like completing projects because I know that the business has benefitted from it. The best part is seeing products in the supermarket that I have developed, especially if they are new and exciting and it was my idea."



About Futureintech

Funded by NZ Trade and Enterprise, Futureintech is an initiative of the Institution of Professional Engineers New Zealand (IPENZ). Established in 2003, Futureintech is a practical attempt to increase the number of young New Zealanders choosing careers in technology, engineering and science – crucial sectors for the infrastructure and social and economic growth of the country.

Futureintech Ambassadors

Futureintech Facilitators around New Zealand work to develop links between schools and local industries. Central to this work is the recruitment of Ambassadors – young people working in technology, engineering and science who are trained by Facilitators to volunteer in schools. Their contribution includes giving presentations, explaining their work, supporting projects, providing a real-world perspective and demonstrating the practical applications of the curriculum. There are currently over 540 trained Ambassadors working with Futureintech, representing a wide variety of industries. Their support and that of their employers is greatly appreciated.

Futureintech partnerships

Futureintech maintains partnerships with around 300 companies, representing a diverse cross-section of New Zealand industry. Partners work with Futureintech in a variety of ways, from encouraging staff members to become Ambassadors to providing expert information for publications or promoting Futureintech to a wider audience. Futureintech's work would not be possible without their generosity and commitment.

Futureintech publications

Futureintech produces an ever-increasing range of print resources for teachers, students, careers advisors, caregivers and industry, all of which are available free of charge by request from head office.

Futureintech's website www.futureintech.org.nz is another key component of the initiative. It offers profiles of Ambassadors and their employers, a database of relevant tertiary courses and monthly regional news, and is regularly updated.

Futureintech's monthly newsletter **enews** is distributed in alternate months to schools and industries, and aims to ensure that all stakeholders are kept fully informed of Futureintech's activities and of the resources we provide.

Futureintech Facilitators

Futureintech's regional Facilitators promote and maintain relationships with schools and industry employers. This involves recruiting and training Ambassadors, advising teachers on how Futureintech can best support their programmes, arranging, planning and supervising Ambassador visits and distributing resource materials.

Facilitators are supported by Host Partners, who provide the office space which enables them to work remotely from the Wellington national office. Host partnerships ensure that Facilitators not only benefit from a collegial atmosphere but also have daily exposure to an industry-related workplace.

If you have a class that might benefit from contact with a Futureintech Ambassador, or to discuss other ways Futureintech may be able to help, please contact your local Facilitator to discuss how we can work together.



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