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'It's wins all round for us': incorporating Futureintech into graduate programmes

Managers from the technology, engineering and science sectors talk about the challenges and benefits of offering Futureintech as part of their graduate programme.

"This year a record number of students have enrolled in Food Technology degrees. Personally I have no doubt that Futureintech has had something to do with reversing the decline in enrolments. If you want your business to have the people to grow, then this is a really cost-effective way to influence that."

Heinz Wattie's Product Development Manager Ian Mackay

WE INTERVIEWED THREE MANAGERS – one each from the technology, engineering and science industries and covering a range of different sized businesses – to find out how and why they incorporate Futureintech into their graduate programmes.

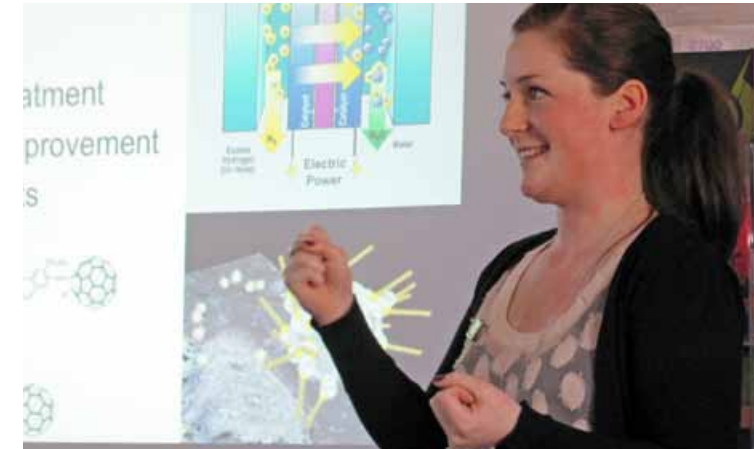
They see the benefits for their staff as being the chance to practise presentation and communication skills in a low-risk environment, the opportunity for personal growth and development, and the satisfaction of being able to give something back to their community. For the industries themselves, having an attractive graduate programme is a recruitment drawcard and there's the longer term benefit of increasing the number of New Zealanders graduating with the right skills and qualifications.

Graduate-led growth and development

For all companies we talked to, Futureintech is just one part of the personal and professional development opportunities that they provide for their graduates. "Futureintech isn't compulsory for our graduates but we offer it to all of them and generally everybody wants to participate," says Heinz Wattie's Product Development Manager Ian Mackay.

"Personal and professional growth is a big part of the company's culture and valuing staff," explains Michael Lindgreen, Strategic Projects Manager at environmental and planning consultancy Andrew.Stewart Ltd.

"When people join the company we work with them through a formal process to identify and provide a range



Isabel Beattie, a packaging improvement technologist at Heinz Wattie's Ltd, gives a presentation about the industrial uses of nanotechnology at Karamu High School, Hastings.

of growth and development opportunities including 'in the office' involvement with projects and training workshops, and attending conferences, seminars and programmes like Futureintech. Overall, the development programme is targeted to what each individual graduate wants to achieve."

At Abley Transportation Consultants, internal staff training is key but they also arrange external mentors and encourage participation in Futureintech. "We have a pretty relaxed approach to managing our graduates' involvement in Futureintech – it's part of our graduate programme but it's voluntary," says Managing Director Steve Abley. "We expect the graduates to be self-motivated and take responsibility for some aspects of their own career development."

Skills and self-confidence

The managers we interviewed all see classroom visits as a great opportunity for their graduates to practice some 'soft skills' including presentation, team work and leadership. "Schools are an 'easy audience' where they can make mistakes and it won't come back to bite them, so it's a good place to learn," says Steve Abley.

Supporting Transpower Neighbourhood Engineers Awards and NZIFST/CREST Product Development Challenge projects can take the graduates to another level of engagement, where they have the opportunity to practice mentoring and team management skills, and experience being a technical expert.

"It's good for their self-esteem and personal growth," adds Ian. "The school visits give our graduates a different perspective by forcing them to think about why they're doing what they do, what they like doing and what they're contributing. Making their visits interactive also makes them rethink some basics – they have to find some



impressive looking but easy-to-do food chemistry from their studies that they may have forgotten. It's wins all round for us."

"[Being involved in Futureintech] has worked well for us in that it reminds us to focus on training younger members of staff," Steve says. He explains that he sees it as a kind of symbiotic relationship – people who are happy in their jobs make great ambassadors for the industry, and enjoying being an Ambassador makes them happier members of his team.

Michael also notices the satisfaction his staff personally derive from their volunteer activities. "They come back with a sense of enthusiasm, pride about their work and they feel good about getting involved with a worthwhile community initiative."

For Andrew.Stewart, Futureintech fits with their community engagement culture and values. "It's a real pleasure to see our graduates become more confident with presentations, public speaking and promoting themselves and the industry – all skills that being involved with Futureintech provides. It's also important that we teach school-aged children about the value of our environment and what they can do from an early age to get involved and make a difference."

Left: Peter Rose, a transportation engineer from Abley Transportation Consultants, doing a hands-on bridge science activity at Kendal School, Christchurch.

Right: Ambassador Jessie Bird, an environmental consultant at Andrew.Stewart Ltd.

Time well spent

All the managers we spoke to generally acknowledge that time is the biggest challenge but agree that learning to balance competing commitments and prioritise workloads is also part of graduate development. "We encourage and empower everybody in the team to manage their own time," explains Michael. "It's primarily up to the individual to decide whether they can accommodate a request from Futureintech alongside their other commitments."

"The cost-benefit analysis for us is participating in Futureintech saves us money."

Steve Abley – Abley Transportation Consultants

With a pool of 15 Ambassadors, it's generally easier for Heinz Wattie's to spare them for school visits but they do appreciate the time that their Facilitator spends coaching new recruits. "Managing our graduates' participation in Futureintech is quite easy – it's pretty hands-off for us as our Facilitator organises all the visits," Ian says.



For a smaller company like Abley Transportation Consultants, the focus is on the graduates developing a sense of responsibility for managing their commitments. “We don’t limit the amount of time and we find that the graduates tend to appreciate the balance point between doing too much and not doing enough,” says Steve.

“The cost-benefit analysis for us is participating in Futureintech saves us money,” he explains. “It speeds up our graduates’ development – of course there’s a cost associated with their time but if we went to an external supplier we’d have to pay their fees as well as for our graduates’ time.”

Home-grown graduates

The managers we spoke to all encourage other employers who want to support the growth and development of their staff to get involved with Futureintech.

“Abley Transportation Consultants is involved because we have a strong commitment to professional development,” says Steve. “And because we have a keen awareness that New Zealand Inc will be less prosperous without more technically knowledgeable people in leadership roles.”

The bottom line for Heinz Wattie’s is that their industry needs more skilled graduates. “There’s quite simply a shortage of good New Zealand-grown food technology graduates,” says Ian. “Futureintech is an opportunity to engage students while they’re young enough to still make the choice to study for technology, engineering and science qualifications.” And he adds that for his industry it’s important to make sure students, teachers and parents

all understand that food technology isn’t the same as “making scones in home economics class”.

Ian does recommend patience. “It’s a long-term commitment - we’ve been working with Futureintech for five years and we’re now seeing the benefits ripple through to the number of graduates. This year Massey University has enrolled a record number of Food Technology students. Personally I have no doubt that

Futureintech has had something to do with reversing the decline in enrolments. If you want your business to have the people to grow, then this is a really cost-effective way to influence that.”

If you know of a graduate in your organisation who would enjoy the opportunity to give back to the community while getting some personal and professional development, contact your local Futureintech Facilitator – see page 6.

Futureintech Annual Report 2011



The Futureintech Annual Report 2011 – part of a series of reports designed to keep our Industry Partners up-to-date with our progress – accompanies this first issue of **e-news for industry** in 2012.

The Annual Report summarises our achievements for the past year and shows how the Futureintech initiative has grown since 2004. It’s also an opportunity to celebrate our success and thank you for all the time and effort you and your colleagues have donated to the initiative.

Futureintech has continued to build on the achievements of previous years. We have recruited, trained and supported more industry professionals to be Futureintech Ambassadors. About 40% of our 665 Ambassadors are female, and we strive to have a pool of

advocates who represent the diversity of New Zealand’s technologists, engineers and scientists.

In 2011, we arranged almost 2,000 visits to a broad range of schools. As well as careers events, Ambassadors brought their specialist knowledge and practical experience to technology, science and maths classes, and to primary school study topics.

We continue to improve and extend our range of printed publications and enhance the Futureintech website. By the end of 2011, there were more than 700 online profiles of technologists, engineers and scientists available to inspire young New Zealanders exploring career pathways in these areas.

The Annual Report also highlights the positive upwards trend for tertiary enrolments in technology, engineering and science qualifications.

If you have questions or feedback, please email us at enquiries@futureintech.org.nz

Thanks to our Host Partners – we couldn't do it without you

We'd like to thank the companies – both small and large – that have generously made space in their offices for our Regional Facilitators, even when they had to find a new building after the old one had been 'red-stickered'.

AS WELL AS PROVIDING A WELL-EQUIPPED BASE, our Host Partners offer an opportunity for Futureintech's Facilitators to gain an insight into the industry. Being immersed in the workforce makes it much easier for them to gain an appreciation of how to promote related careers. This introduction is especially valuable for new Facilitators, as generally they come from an education background.

Our Facilitators appreciate the friendly, collegial environment provided by their hosts and find the work going on around them intriguing, even if they can't follow all the technical details. Knowing that their host partner is interested in learning about our activities is also very important, as industry support is a key component of the Futureintech approach.

And finally we'd like to thank our Host Partners for their endorsement and support of Futureintech. Being hosted by well-recognised organisations gives our Facilitators and our programme credibility throughout the technology, engineering and science industries.



hosts Christchurch Facilitator Catherine Smith



hosts Central and West Auckland Facilitator Julia Parker



hosts Central North Island Facilitator Margaret Brunton



hosts South and East Auckland Facilitator Gay Watson



hosts Dunedin Facilitator Lynne Newell



hosts North Auckland Facilitator Rod Hare

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.

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

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 head office. Host partnerships ensure that Facilitators not only benefit from a collegial atmosphere but also have daily exposure to an industry-related workplace.

If your staff might be interested in volunteering as Ambassadors, or your business benefit from being involved in any way with Futureintech, please contact your local Facilitator to discuss how we can work together.



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