

## High training numbers will maintain skilled workforce

Despite the past 12 months being a difficult period for many New Zealand businesses it appears the economic climate is easing. Manufacturing activity in New Zealand is beginning to show signs of expansion for the first time since April 2008.

Business analysts are forecasting growth and report an increase in many areas including the receipt of new orders, employment, production and deliveries. But the drive for increased efficiency will continue even as business conditions improve (see Competitive Manufacturing story on page 2).

This is gratifying news and should be encouraging to employers who have maintained their commitment to training which has remained high and apprentice numbers have also remained high. As the economy picks up we need to ensure that we keep training so that we are not robbed of a skilled workforce. We are confident New Zealand industry will not suffer the

same skills shortages that have constrained economic growth in the past as our economy climbs out of the recession in 2010.

However the Government is asking us for a greater return on training investment and future funding, which is frozen at the 2009 level, will be linked to successful outcomes.

Competenz is playing its part by being more efficient in the way we purchase training courses thereby improving the rate of apprentice and trainee completions while at the same time reducing our administrative expenditure.

**Trades training is critical to the success of the country – these are the people with the skills that build the economy.**



John Blakey

**Let's work together to maintain the momentum of providing and delivering quality training programmes and make 2010 a successful year for industry.**

On behalf of everyone at Competenz I wish you and yours a very Merry Christmas and a safe, happy and prosperous New Year.

Best wishes,

**John Blakey, Chief Executive**

## Competenz receives re-recognition

Competenz is pleased to announce we have received re-recognition status as the ITO for the Engineering and Manufacturing industries for a further five years. We thank those companies who have expressed their support for us as their ITO and reiterate our commitment to working closely with industry to provide the skill base for success.

## Level 5 Engineering qual receives strong support

Competenz is collaborating with industry to develop a new suite of National Certificates in Engineering at Level 5. Recently three of Competenz' key Strategic Advisory Groups (SAGs) signed off on the new qualification structure, which they believe is more coherent and easier for employers and apprentices to understand than the current Level 5 qualifications structure.

The SAGs have endorsed the concept of a single **National Certificate in Mechanical Engineering (Level 5)** with strands, to replace the five existing, separate National Certificates.

The new strands will likely include – **Engineering, Maintenance, Mechanical Services, Fabrication and Fire Protection**. It is planned that there will be a core of compulsory unit standards common to all strands to form the

off-job delivery package and the electives units for each strand will be delivered and assessed primarily on-the-job.

SAG members also expressed a preference for the new stranding structure which is based on the NZQA domain name as opposed to the unit standards covered within the strand (which dictates the current Level 5 qualification strands).

*Continued on page 2*

# Cultural change key to Competitive Manufacturing success

**Malcolm Clark**, managing director of the Airpro Group of Companies, a medium sized HVAC specialist in Henderson, Auckland is embracing the opportunity to participate in a Competenz led Competitive Manufacturing pilot project.



William (left) and Malcolm at Airpro.

When Competenz Account Manager William Bratton invited him to participate in the pilot project, Airpro was embarking on its own continuous improvement process so it was an opportunity Malcolm couldn't resist.

**"The timing couldn't have been better – we felt the Competenz pilot would complement what we were about to do,"** explained Malcolm. **"With fast growth over the past two years we recognised our processes needed a critical eye and performance efficiencies across all areas of the business could be improved."**

Discovering the principles of competitive manufacturing is a process Malcolm is enjoying, and particularly learning that a sustainable culture is critical to the success of competitive manufacturing and can only be achieved by engaging all workers, starting from the top.

As founder and Managing Director of Airpro 25 years ago, Malcolm is the first to admit he has not paid as much attention to developing behavioural processes as he should have as his attention was more on building the company.

"After completing a 'Value Stream Mapping' process and identifying areas where

interventions could be introduced we commenced the CM process about two months ago. **Even after one month, the results are encouraging but we have a way to go,"** admitted Malcolm.

He says it will be a 'work in progress' but one that is he enjoying leading, adding while he has seen it done he has never done it himself.

**"It is easy to get involved and Competenz has shown us meaningful benefits of change. It is good to have William pushing us along, checking our progress and always following up. The time commitment is negligible compared to the benefits."**

While Malcolm is the driving force behind the need for change the general consensus within the company was **'change was needed'** and he has the support from his 'very experienced' human resources manager Bernadette McEvoy.

**"I am making it happen, I can visualise where we can get to and am confident of realising significant productivity improvements before the end of the year,"** he says.

**If October's results are an indication, where Airpro's factory achieved a 15% increase in productivity and stores**

**turned over twice the normal volume of stock, Malcolm sees no reason why the trend can not be sustained.**

The introduction of project management training is another intervention which is giving significant results. Previously, staff were promoted without core competency recognition by the project management team and as a result consistency in work and project accountability was missing. To remedy this, Malcolm and Bernadette implemented a skills competency assessment which highlighted some of Airpro's weaker areas. Now, armed with background knowledge and tools and assistance from Competenz, they have achieved significant progress in project management.

**"This tangible evidence is exciting and encouraging,"** says Malcolm.

"The seeds are sown now – the challenge is to bring staff along with us. We're not at critical mass, but we are well on the way."

Competenz can guide you on your journey to a CM-enhanced business.

For more information call

**William Bratton** on (09) 539 9879 or **Andrew Brownlee** on (09) 539 9871 or email [info@competenz.org.nz](mailto:info@competenz.org.nz)

## **Level 5 Engineering qual...** *Continued from page 1*

"The advantage of this proposed strand structure is that it allows new units to be written and included as needed, to keep up with technological advances or change, without the costs and delays of revisiting the entire qualification," says Competenz Industry Manager and leader of this revision process, **Bill Sole**.

**"It will also create a more seamless, flexible training pathway for our completed Level 4 apprentices in all of our engineering-related fields to move into higher study, while continuing to learn primarily on-the-job."**

The core elective range of units will allow participants to concentrate on either supervisory or technical skills (or both, if necessary for their role), as well as providing a clear pathway to the Level 6 National Diploma in Engineering.

"All of these developments are part of our team's overall strategy to create a more accessible and easily understood platform for the Level 5 engineering qualifications, and hopefully facilitate the transition of more apprentices into higher learning," says

**Matt Allfree**, General Manager of Strategic Development.

"To receive endorsement from such a broad range of industries is good news. This is encouraging progress that's truly putting our engineering sector customers first."

**If you think this qualification is right for one of your employees, ask your Account Manager or call 0800 526 1800.**

# Machining apprentice hones sights to international level

Auckland Mechanical Engineering apprentice Stephen Florence has precise machining skills and he knows exactly how beneficial those skills are to his long term personal goal.

Stephen has his sight set firmly on representing New Zealand in archery at the London Summer Olympics in 2012 as well as completing his engineering apprenticeship. He says the NCME Level 4 (Machining strand) is the ideal platform for him to hone his own equipment to get him there.

By day Stephen is one of seven machining apprentices at **Buckley Systems Ltd** in Mt Wellington, operating milling and lathe machines to make a range of steel objects that require high concentration and precision to give exact, smooth and flat finishes.

And he carries these same skills into designing and manufacturing his own archery equipment which is helping him develop his competitive edge.

At 20 years old, Stephen has been competing in the international arena for 2 years and says all his hard earned wages go immediately to supporting his sporting passion.

While a bow costs about \$5,500 new, it may not necessarily be the perfect fit for Stephen so a few years ago he began making his own equipment. His innovation and skill has shone through. He crafts minutely detailed 'valve-like' pieces integral to the accurate flight of an arrow, first in brass which proved too heavy, then in aluminum. It all takes time – it may take him two weeks to tune a bow, adjusting the arrows followed by hours of shooting and refining, until it is perfect.

"All my weights are customised to suit me so I can achieve exactly what I want within my budget constraints," says Stephen. He shoots about 150 arrows a day and each one has to be perfect.

Stephen became interested in archery about six years ago when hunting with his Dad using a bow. He then transitioned into target shooting using a compound bow. He soon joined a club and about two years later competed at the World Championships in field archery. **Not only did he win the juniors' title he also scooped up three world records.**

Now competing in the Senior Men's Elite, Stephen recently returned from competing at the World Championships in Korea.

Stephen applauds his employers at Buckley Systems for not only giving him expert guidance in developing his engineering and machining skills but for also having the flexibility and giving him the time off for national and international competitions. **"Without an understanding and supportive employer, none of what I plan to do would be possible,"** Stephen says.

The expert guidance comes two-fold as former New Zealand Men's Champion Shane 'Snowy' Switzer is a fellow tradesman at



*Stephen at work*



*Stephen in competition mode*

Buckley's. Snowy is head of Archery New Zealand's High Performance Programme, of which Stephen is a member and he is Stephen's personal coach.

Snowy thinks Stephen has every chance of making the New Zealand Olympic team, despite it being one of the toughest sports to qualify in. While there are some 80 nations competing at world championship level, only 64 individuals are accepted to compete in archery at the Olympics.

"An archer might train for six years to get to the Olympics and they might only shoot 12 arrows," explained Shane.

"As well as his sport he has to maintain his studies and keep up with his work," said Shane.

Buckley Executive Assistant – HR and training administrator **Kim Reed** oversees Stephen's apprenticeship progress and reports back to Competenz. **She too is impressed with his commitment and tenacity, especially for someone so young.**

Competenz Account Manager, **Mark Powley** concurs, "Stephen is well on track to meet his goals – complete his apprenticeship; make his own bow; compete at the Olympics and shoot well. They just may not necessarily be in that order."

For Stephen, the most immediate goal is to qualify for the 2010 Commonwealth Games in New Delhi which requires him to shoot at five international tournaments in a two year period. He's achieved 50% of this goal and is confident of a 100% completion.

# Zero harm the key goal for Tenix

Zero harm is the mandate for safety and health at the Tenix Robt. Stone Hawera plant. To help employees meet this goal, 45 workers graduated recently with their National Certificate in Occupational Safety & Health, Level 1 qualification.

The Competenz-designed course covered many workplace activities but mainly addressed specific maintenance procedures required for the company to gain site entry to carry out contract work and shutdowns.

"Many of our clients require employees to hold a 'permit to work' for maintenance procedures in confined spaces and hazardous areas and many staff didn't have this. It is a requirement to have this to be able to cover all H & S issues," explained Tenix Robt. Stone's area manager, **Ernie Lawrence**.

"I was looking for a cultural change more than anything else, as well as precision in health and safety procedures," explained Ernie. "In the past workers said they did not retain what they had been taught, but this time it was different."

The innovative and practical training included graphic images of accidents in the workplace, and examples of the impact on family members when they lose a loved one to a workplace accident.

The message really hit home on why workplace safety is important. It also emphasised the requirement for employees to take responsibility for themselves and others in their place of work.

As a maintenance provider covering repairs, breakdowns, call outs and scheduled shut downs, Tenix has a variety of skilled tradesmen working across all levels, from fabrication to petro-chemical to dairy.

"We are intermingling people into different industries so they have to be adaptable," said Ernie. "In the past we have had a lot of near misses just because of non-compliance and workers bypassing procedures.

"Since completing the training I have noticed a big cultural shift – it's a tremendous result and a great return on investment.

"There is much more compliance, more focus towards safety and more detail in job safety analysis and auditing. The jobs are better planned and better executed and so we get better results financially.

"Detailed planning goes into each job, with workers reviewing what is required,

Competenz Account Manager **Jo Bourke** who worked closely with Ernie to tailor the training material to suit their needs said she was impressed with Tenix's commitment to the training.

"Tenix's health and safety documents and procedures were incorporated into the training information to make training relevant and add value, for example, accident near miss reports, hot work permits and confined space entry forms were included," said Jo.

"In addition, improvements, changes and additions were identified within the training that could be implemented into existing procedures. The unit standards we selected were qualifications that were required for the company to gain site entry to carry out shutdowns and contract work. Now the company has a comprehensive record of learning and can send any one of its workers to these jobs."

The success of this training, says Ernie, has seen Tenix Australia

commit to rolling out safety and health training across all areas, acknowledging 'people are their biggest asset.'

The benefits are three-pronged, says Ernie: 'to Competenz, to Tenix and to our clients'.



Graduating staff are joined by Matthew Holland (left) Ernie Lawrence (centre) and Mayor Ross Dunlop

identifying hazards and then what precautions are required. There is more cleanliness, tidiness and maintenance on our own equipment."

The training has empowered the men and they display more confidence in exercising responsibility and authority for jobs, to the point of shutting a job down if the site is deemed to be unsafe.

"We want to be number one in safety. It is now much easier to enforce safety and although I've had total 'buy in' from staff, the proof is in the pudding from our clients and what they are telling us. They know we are serious about training and have shown real support and worked closely with us. It is definitely a two-way process in sharing information," said Ernie.

## STOP PRESS 2010 Board Forums Announced

The Competenz Board will hold three Board Forums next year:

26 March Dunedin

30 July Hamilton

24 September Napier/Hastings

Note: Venues to be confirmed – more details will be sent to members closer to the time.

## Cool initiative will benefit refrigeration apprentices



MIT lecturers Weir Pillay (far left) and Paul Phillips (back right) stand proudly in front of one station on their new refrigeration commissioning facility.

## The Faculty of Engineering and Trades at the Manukau Institute of Technology (MIT) in Auckland has installed a world class, state-of-the-art refrigeration commissioning facility for training our refrigeration and air conditioning apprentices.

This new training facility is the only one of its kind in New Zealand. It is composed of four separate units allowing eight students the ability to train and put their theoretical learning into practice at any one time.

It consists of the latest non-flammable cool store materials, ozone-friendly refrigerants, and up-to-the-minute programme logic control technologies (PLC), all donated and installed by supporters from within industry at no cost to the faculty.

Dedicated MIT lecturers **Weir Pillay** and **Paul Phillips**, secured industry support from **Kingspan Ltd, Stroeven Holdings, Schneider Electric, Patton Ltd, Transcold Industries**, and **Irhace** in their quest to provide the best learning facilities possible for our learners.

"The commissioning room replicates the exact conditions our students experience on-the-job, allowing them to fine-tune their practical skills in a safe, controlled and technologically relevant environment," says Weir.

"We are extremely fortunate to be able to provide students with this superb training facility which I believe will make training for our Ref/AC apprentices up-to-the minute and even more relevant for industry."

Year 2 apprentices currently finishing their block course at MIT have been the latest beneficiaries of this facility, but they certainly won't be the last.

According to Weir, training in refrigeration and air conditioning is on the rise as more employees seek to broaden or complement their existing engineering knowledge, and more qualified immigrants need to meet New Zealand's specific competency and standard requirements for this industry sector.

MIT teaches and assesses students to national certificate and diploma levels in refrigeration and air conditioning.

## QUALS UPDATE: Fabrication qualification review offers diverse training options

Changes to the National Certificate in Engineering – Fabrication (Level 4) will be good news to workers in the fabrication industries, particularly fabricators, sheet metal workers, boiler makers, steel construction workers and fitters and welders.

Following a review, the new Version 5 qualification will offer additional unit standards to cover a new strand in Steel Construction, in addition to strands in Heavy Fabrication and Light Fabrication.

"The qualification was reviewed and updated to ensure it was fit for purpose and met industry needs," said Competenz Industry Manager, **Wolfgang Marshall**.

The key changes as a result of the review include:

- The removal of the previous welding strand, with a new set of qualifications for welders being developed;
- All strands include unit standards on basic CNC principles, pressure vessels, pipes and jig building;
- Greater attention to development of fabrication patterns;
- Unit standards have been rationalised to minimise the amount of workplace assessment needed.

The new version is more user friendly, and Competenz has developed supporting materials for students and tutors.

The qualification will continue to be achieved through an apprenticeship typically lasting four years with apprentices attending night school or correspondence school. All off-job unit standards will be assessed by the training provider, while on-job unit standards will be assessed in the workplace by a registered assessor.

Competenz says workers who have completed a pre-trade course may have already achieved some or all unit standards for Year 1. Apprentices who have started training on the previous version of the qualification will have until 2014 to complete that version. The previous versions will continue to be recognised in industry, and there is no need to upgrade or transfer.

**Effective immediately, all newly registered apprentices will be signed into the National Certificate in Engineering – Fabrication (Level 4, Version 5).**

## Leadership potential recognised



A proud **Mark Cowien** (left), Coastal Otago Apprentice of the Year in the Coastal Otago Industry Training Organisation annual awards with Competenz Account Manager **Peter McGregor** (right). The judges considered him to be a "leader of the future" and Peter agrees wholeheartedly. Mark completed his NCE apprenticeship, with a heavy fabrication strand at C/J Saunders Engineering taking on a more senior role of foreman at the same time. It was a role he relished, and so too did customers as they often asked specifically for Mark.

# Tools4Work events help fast-track students into industry training

Education is not normally something you can fast track, but for hundreds of secondary school students, their work on either the grass kart or minibike projects literally thrust them onto the raceway and into the limelight recently – and they loved it.

Over 70 students from high schools across the Southland, Otago and Canterbury regions competed vigorously for the title of Overall winner – the major prize sponsored by **Tools4Work**, at the Grass Kart Challenge in Mosgiel.

Meanwhile some 200 Year 12 students were let loose onto Manfeild Raceway in Fielding at the annual Mini-Moto GP, also sponsored in part by **Tools4Work**, as

well as **UCOL** and **Manfeild Raceway**.

For both events, the Tools4Work pre-moderated resources helped teachers deliver and assess the Level 1 and 2 Engineering unit standards students achieved by building their machines through the year.

To view video footage of both events visit: [www.tools4work.co.nz](http://www.tools4work.co.nz)



## Technology students' work receives blessing

While many high school engineering students build grass karts or mini bikes the Year 10, Level 1 Engineering students at Sancta Maria College in Howick, Auckland spent the year designing and building crucifixes.

Under the expert tutelage of technology teacher **John Luzak** the students follow the Tools4Work unit standards and assessments in Level 1 Engineering.

The choice of material used to construct the crucifix is left up to each student with some using wood, steel, metal, tin and bronze. By the time they complete their projects the students have covered all occupational health and safety units and understand how to use a lathe, engineering workshop tools and processes.

Of the students in this year's Y10 class four were girls who says John, "seem to produce the best work."

As a former fitter and turner with the New Zealand Army, John was instrumental in developing the Howick Campus when it opened six years ago. He introduced crucifixes to the curriculum two years ago and says

each new year's technology students look forward to the course.

Outside of his teaching hours at Sancta Maria College he keeps his hand in the engineering sector by working part time for CYPs teaching youth in prisons two nights a week; he teaches outdoor sculpture and welding at night classes at two local high schools, and on weekends he does maintenance work at the Tegel factory in Takanini.

He says he still has the same passion towards engineering now, as he did when he first started work, and this comes through in his teaching style and commitment to his students, despite teaching in cramped classroom conditions, a small workshop and with limited equipment.

To celebrate the successful completion of each student's work, the crucifixes and their creator were blessed in the school's chapel.



*John Luzak guiding Kaajal Shirley*



*Students and their crucifixes receive a blessing*

**Holiday season closure**

Competenz will close for the festive season on Friday 18 December 2009 and re-open on Tuesday, 5 January 2010.

**Competenz**  
INDUSTRY TRAINING

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