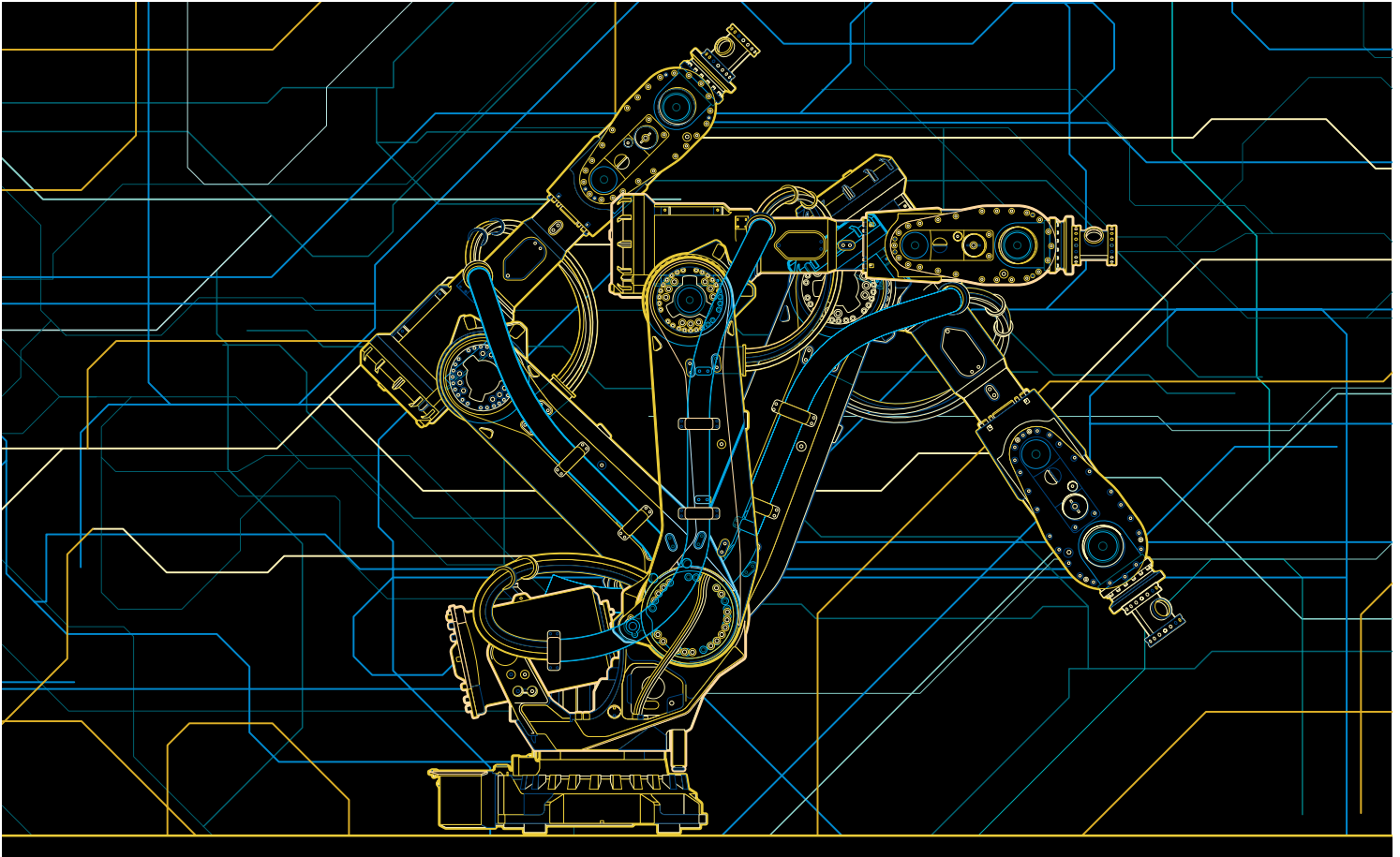


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The customer magazine
of the ABB Group
in New Zealand

source



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Ewan Morris
Managing Director
ABB
New Zealand

There has been a big paradigm shift in how we view robots. They are no longer just machines, but are more like coworkers. They not only promote faster and more efficient production, but also help mitigate safety risks, which, following the latest health and safety legislation, is beneficial.

True collaboration will come from finding ways in which robots complement and expand our capabilities; not in replacing people with robots. Collaboration will require the application environment, hardware and software to be tailored to meet the needs of individual users and applications.

The range of robotic applications is staggering, and the exciting thing for an innovation-rich country like New Zealand is that we can be a part of these new developments. This issue of *source* highlights a couple of good examples of ABB's robotics capability coupled with kiwi ingenuity.

The duty free click and collect robot, ACE, is a world first, and certainly makes duty free shopping more interesting!

The robotic surfboard shaping system by kinaroad and Haden & Custance's depalletising systems prove that robots can also create exporting opportunities for local businesses too.

We are excited to be part of this new realm of industrial robotics. I hope you enjoy the read.



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Building the future in China



The creation of the first LEGO® manufactured in Asia will be a seamless process courtesy of ABB's New Zealand-made power protection equipment



The factory is located in the city of Jiaying, approximately 100 km from Shanghai where the LEGO Group is also planning to locate their regional distribution centre for Asia. Once up and running, the entire toy manufacturing process will require significant reliable power resources to ensure consistency and maximum productivity.

China's electrical infrastructure is the largest in the world, and the country has the greatest capacity for energy generation globally. However, demand outstrips supply and the utility grid is frequently overstretched and poor power quality is common. Therefore, LEGO turned to ABB for a power protection solution designed to improve power factor and reduce harmonics, which will result in an improved reliability of power supply within their Asian factory.

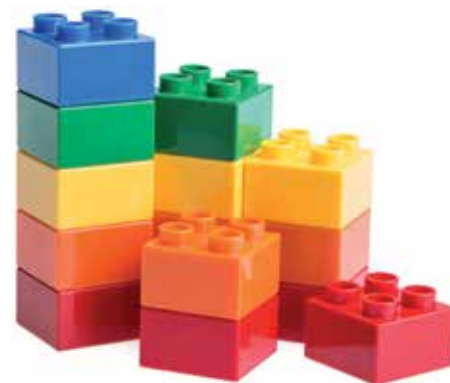
The total solution

Production plants and many other facilities are often confronted with a number of disturbances, from distortion of supply voltage, to harmonics and high inrush currents. An unstable supply can result in downtime, and either reduces the life of expensive electronic equipment or causes damage to it. Installed in the switch room of the new factory are ten single module PCS100 reactive power conditioners (RPCs) which are able to respond instantly to power quality events, while providing continuous reactive power correction.

Key benefits

Based on a unique modular design providing high reliability, the PCS100 RPC will provide LEGO's factory with benefits such as:

- Ensuring correct operation of 3-phase rectifier loads, extending their lifetime, by correcting for voltage unbalance
- Lowering maintenance costs by not exposing equipment to poor quality power
- Eliminating the risk associated with traditional power factor capacitor correction systems, such as overheating caused by harmonic resonance problems
- Improved factory supply.



Construction of the LEGO® Group's first factory in Asia is well underway as the world's second largest toymaker taps into the ever-increasing demand in the region. LEGO's sales have tripled since 2007, with Asia playing a big part in its success as annual sales have increased by more than 50 percent in recent years. The new Asian factory will be fully operational in 2017 and is expected to meet nearly 80 percent of the total regional demand for LEGO.

Sustainable transportation



ABB's EV charging technology at Vector's latest charging station in Silverdale, Auckland. Simon Mackenzie, Vector Group Chief Executive (left) and Transport Minister Simon Bridges at the opening of the Vector charging station in Newmarket.

ABB welcomes the Government's announcement regarding (EV) policy and looks forward to supporting this initiative through the deployment of additional fast charging technology.

Collaboration between vehicle OEMs, infrastructure technology providers, operators, authorities and policy makers is key to deploying new energy saving and clean transportation solutions of the future. As a power and automation technology leader, ABB's job is to continuously develop charging infrastructure technology to meet the requirements of future generations of vehicles. As manufacturers of EVs are increasing battery size in order to extend the range, we are developing our products to meet the demand from the industry. Future developments include DC fast chargers with power ratings two to three times larger than what is currently available, in order to keep charging times to acceptable levels.

Economic growth, rapid urbanisation and environmental concerns are prompting the development of innovative urban and more long-distance transport solutions.

In addition to electric vehicle charging technology, ABB provides technologies to support sustainable mobility across applications such as railways, metros and electric buses.

As well as electric cars, we are starting to see interest from the New Zealand market for electric buses and the technology required to make this a reality for our major cities. This mirrors what is happening worldwide, with many cities starting to switch to sustainable public transport systems to reduce emissions, reduce noise, and improve air quality. Through a partnership with Volvo, ABB has developed fast charging equipment that allows buses to be recharged within a few minutes when stopped at the end station, as opposed to returning buses to a depot to charge. This equipment has been deployed recently in Luxembourg and Belgium.

ABB manufactures the world's fastest-selling DC fast charger. These chargers are being deployed in charging networks for automotive, utility, government and retail customers, including nationwide networks in the Netherlands, Estonia and Denmark. Locally, ABB's chargers are currently being deployed across the North and South Islands.

For more information on ABB's EV charging business please visit <http://new.abb.com/ev-charging>.

Editorial by Ewan Morris, Managing Director, ABB in New Zealand

Solar Impulse takes to the skies to show we can run the world without consuming the earth



After a winter break in Hawaii, the Solar Impulse round-the-world mission has taken off again, with the aim of becoming the first plane to circumnavigate the globe without consuming a single drop of fossil fuel. ABB is providing essential technical support through its innovation and technology alliance with the pioneering project. Together, we are spreading the message that we can decouple economic growth from environmental impact.

“ABB’s alliance with Solar Impulse reflects our shared belief that with clean technologies, such as solar power, we can run the world without consuming the earth,” said ABB CEO Ulrich Spiesshofer. “ABB and Solar Impulse complement each other perfectly because what Solar Impulse is achieving in the air, ABB is doing on the ground as a technology leader that enables utility, industry, and transport & infrastructure customers to improve their performance while lowering environmental impact.”

Having made an important contribution to the Solar Impulse mission last year, both before take-off and at the plane’s various landing sites, ABB has again

assigned an engineer to accompany the Solar Impulse ground crew throughout the flight, which will fly east across the continental United States and the Atlantic to its starting point in Abu Dhabi. ABB teams will also be on hand to welcome pilot and plane at stopovers and provide any assistance needed on the ground. ABB and Solar Impulse will be continuing their close collaboration to raise awareness of the mission and its aims among businesses, officials, students and the general public.

“Solar Impulse was not built to carry passengers, but to demonstrate that alternative energy sources and new technologies can power the world sustainably,” said Solar Impulse co-founder and pilot, Bertrand Piccard. “Our alliance with ABB is a perfect match because we have the same goal of improving the world by using energy more efficiently and conserving natural resources.”

To reach Hawaii, which involved a record-breaking 118-hour flight from Japan, Solar Impulse had to overcome many of the same technological challenges that need to be solved to enable an energy transition to a low-carbon world. These include reducing energy consumption to the absolute

minimum, integrating renewable energy into the electricity system, and battery technologies for energy storage to power the plane at night.

During the second part of the mission, ABB will be presenting ground-based solutions to these challenges, such as microgrids which integrate renewables into grid-connected systems, and digital technologies that manage multi-directional flows of electricity, and balance supply and demand. The first ABB event of 2016 was a press trip on the Hawaiian island of Kauai on April 15, where ABB power conversion technologies are helping to ensure a stable and reliable electricity supply at a new solar energy park. The solution allows the utility company to drastically cut its polluting diesel fuel imports and rely more heavily on solar, biomass and hydropower.

Throughout the mission, ABB engineer Eoin Caldwell will be sending regular reports and updates via social media and our Solar Impulse microsite, www.abb.com/betterworld, where you will also find videos, blogs and articles that show that it is possible to run the world without consuming the earth.

ACE: Duty free collection made easy with ABB robot

A chance encounter in New York was the inspiration for ACE, Aelia Duty Free's Automated Customer Experience robot - the first of its kind in the retail industry in the Southern Hemisphere and the world's first click and collect duty free robot - now live at Auckland International Airport.



Grant Carter (left) and Graeme Paulin from ABB's robotics team, with ACE

ABB's IRB 6700 robot complements Aelia Duty Free's established online ordering system, by providing a click and collect automated experience for customers to collect their duty free products purchased online via the robot retrieving from a prepacked bin in-store with the scan of a barcode.

Background

Ivo Favotto, Executive General Manager, Pacific of Duty Free & Luxury for Lagardère Travel Retail, was on vacation in New York when he happened upon ABB's articulated arm industrial robot, 'Yobot', picking up and storing guests' luggage lockers at the Yotel Hotel in Times Square West area of Manhattan. The customer then made contact with ABB, who designed and engineered a solution to make the vision a reality.

Ivo comments, "We needed a solution that matched the experience we have with our online stores, and as a tool to drive customers to our click and collect experience. New Zealanders tend to be early adopters of technology, and the online experience is quite a big part of our business here. This technology makes us digital all the way, and improves our speed of service."

Customised solution

With ABB's Yobot and another similar application in a shoe retailer in Berlin to compare, ABB's local robotics team created a unique solution.

The robot is mounted on a custom engineered steel sub-floor, where it moves between two collection stations and 160 bins, which are stacked to ceiling height against three walls within the enclosed area. Housed behind a secure glass enclosure, a customer simply scans a barcode on their receipt from an online purchase or preorder, and then on arrival to the store, they scan their code and the robot smoothly picks the bin containing their order and delivers to the customer in approximately 22 seconds.

ACE works with 160 bins over three different sizes. In terms of weight without product, the biggest weighs 36.5 kg, medium weighs 23 kg and the smallest weighs 15 kg. The biggest bin fits nine standing bottles, while the smallest fits three lying bottles. The overall structure of the click and collect system is four metres high, and is significantly heavy, meaning the existing airport floor needed strengthening work.

ACE also comprises ABB's safety system and an operator interface touchscreen.

Safety and security challenges

Grant Carter, ABB's local business unit manager for robotics, highlights that there were a number of challenges in executing the project in such a security conscious environment:

"We managed to shift the large heavy components through limited access ways, complying with health and safety and aviation security regulations, without causing any disruption to the airport or the customer's operations. ABB was able to make this challenging project a success by delivering a world-class robotic solution, as well as accessing our network of partners who had the right skills and abilities to get the job done."



ACE is an ABB IRB 6700 industrial robot that is used all over the world in heavy lift applications such as material handling, machine tending and spot welding. The high performance robot, in the 150-300 kilogram class, can reach from 2.6 to 3.2 metres.

In terms of future applications, Ivo Favotto states that if they get the chance, they would be delighted to do it again. "We are very happy with the way it looks, the way it interacts and the service delivery promise. We have been very happy with the experience."

ABB brought in Crossman Richards (automation) and DSK (mechanical fabrication, construction of bins), both of which are from Hastings in the Hawke's Bay.

Aelia Duty Free

Aelia Duty Free (run by Lagardère Travel Retail) took over one of the two duty free operations at Auckland International Airport at the end of June 2015.

Robotics in New Zealand

Source interviews Grant Carter, ABB's New Zealand robotics manager, to discuss how robots can transform our workplaces.



Robots are often discussed in the context of taking away jobs, will they make people obsolete?

The notion of robots taking jobs is not the conversation we are having with our customers. They are more focused on adding to their workforce as opposed to taking away. By employing robotics, they are redeploying their people for other functions, while at the same time minimising risks and wastes associated with time-consuming lower value tasks.

We have seen robots actually save jobs. One example is the prevention of outsourcing of manufacturing to low labour cost countries. I feel that the high productivity gains our technology provides will enable our manufacturers to re-shore manufacturing back to New Zealand. And then we have local customers who have been very successful in exporting robotics-based systems to other countries, and have grown substantially by accessing these markets.

Obviously robots can do things faster, but why else would a company need to automate?

Robots are fast, strong, dependable and precise, and this brings obvious benefits. But there are other intangible benefits to consider, such as safety and making the workplace more attractive for workers. One of the major drivers for the integration of an industrial robot is for customers to remove their employees from hazardous areas and tasks. This has now become a significant factor with the recent attention on workplace health and safety. For example, some companies want to eliminate the manual handling of items over 15 kg so they employ robots to do this.

We also see robots being deployed where there are skills shortages. In welding, for instance, in New Zealand it can be hard to find qualified personnel, so now these qualified workers oversee welding robots. These workplaces become much more attractive for those hard to recruit and retain workers.

Also the consistency of robots provides our customers with the ability to manage their business at the next level. Inputs, time and quality all become known, so decisions can be made with more precise information. All of this allows companies to maintain stronger profit margins and to compete more effectively, while their people fulfill more pleasant and meaningful assignments.

Are there any trends here locally in New Zealand with regards to robotics?

Although there are many new applications of robots being seen worldwide, we have a prevalence in New Zealand of non-traditional and innovative ways of automating. The duty free click and collect "ACE" robot is a world first, and I'm sure the Faculty of Architecture and Design at Victoria University of Wellington will be a model of innovation for many other institutions.

As I mentioned, workplace health and safety is a significant driver currently. This is trending the use of robots for hazardous tasks to protect workers from dangerous activities.

New Zealanders are very quick to adopt new technology and, as always, we like to create and innovate so I expect to see a lot more new and exciting applications.

Do robots require much software and support?

It is very simple to deploy our robots. With half a day of training our customers are up and running, and we provide any software and support that is needed. Our robots operate 24/7 with very minimal requirements for maintenance - only a few hours once a year. We have spare parts and local engineers here in New Zealand to provide prompt support if it is required.

There are a large range of "extras" available with ABB's robots, including specialised application equipment and software, vision systems, motorised spindles, workpiece positioners, track motions and safety systems. Our robots are also purchased by system integrators for their own local and global customers. All ABB robots, whether used in the country of purchase or used in another country, are locally supported by ABB in the country of use.

Surfboard shaping a new application for ABB's robots



Scott Fenton, Chief Executive kinaroad with the shaping system

ABB's industrial robots are a key tool for kinaroad's successful robotic surfboard shaping system package which recently exported its first machine to Australia.

Auckland-based company kinaroad produces a surfboard shaping solution that enables surfboards to be expediently and accurately machined, avoiding the need for manual fine shaping or fin box routing. Unlike existing shaping machines, this saves time and increases factory efficiency and profitability, whilst ensuring that every board is consistently shaped to the designers specification.

The robotic shaping module comprises ABB's IRB 6640 industrial robot and can run autonomously around the clock, shaping multiple surfboards to a high degree of accuracy without any human intervention. The design software and robotic building technology has been in research and development since 2010, according to company chief executive Scott Fenton.

"We have been working with ABB since 2012. Kinaroad has a unique business model where we retain ownership of the robotic shaping modules being deployed into factories around the world, and are paid a fee for every board shaped. Given ABB's robot technology requires minimal maintenance and is extremely reliable, we are able to maximise our operating hours and throughput, knowing that we have a robust system that can deliver day in day out, without us needing to be onsite."

ABB's IRB 6700 is the next generation to the IRB 6640 and is used commonly in automotive and general industry for a wide range of applications, including material handling, assembly and welding. It has a payload of 150-300 kg.

"This model of robot is a real workhorse, as it suits so many applications", says Grant Carter, ABB's local business unit manager for Robotics.

"It's exciting to see ABB's robotics technology used in such a unique and innovative way.

The first system has been deployed to a customer's factory in Burleigh Heads on the Gold Coast, and kinaroad hopes to continue growth in Australia before expanding into the Californian market.

Automating architecture

Victoria University's architecture students are experiencing the future of digital fabrication first hand, with the installation of a robot lab, complete with an ABB IRB 6700 industrial robot, in the School of Architecture and Design.



The robot lab vision was developed by Kevin Sweet, Senior Lecturer at Victoria University of Wellington (VUW), who had implemented the creation of a similar robot lab at the American University of Sharjah in the UAE. Kevin contacted ABB for a complete turnkey solution, including installation, commissioning and user training, which met strict safety requirements to ensure a safe working environment to students.

The newly-installed robotic cell has been designed for students to research digital fabrication methods for construction. The robot is equipped with a spindle for machining, a pneumatic gripper for picking items up, and is able to change between these and other tools as required.

"The addition of the robotic arm to our laboratory has offered the ability to explore alternative building methods within architecture", says Kevin Sweet. "The ease of operation and versatility of the robot provides for the exploration of countless possibilities. ABB has been an incredible working partner and has provided assistance with everything from answering endless questions prior to the purchase to nearly immediate responses to technical questions. I am excited about the future potential of the robotic arm in our lab and our continuing relationship with ABB."

Installed in the School of Architecture and Design's modelling workshop, Te Aro Campus, this is the largest robot installation for a NZ academic institution by ABB.

The IRB 6700 industrial robot has a 200 kg payload capacity and 2.6 m reach. The equipment attached to the robot was custom-engineered for digital fabrication applications.



In addition to the robotic arm, ABB supplied a MTD250 motor/gear unit configured as a rotary turntable, a FlexFinishing spindle package with tool buffer, and a Festo 80 mm pneumatic parallel gripper. The robot is able to change tools using a Schunk tool changer.

With safety in mind, robot is installed behind ABB's Jokab large transparent safety fence to enable viewing by students and teachers during operation, in addition to ABB's safety automation on the robot software.

ABB was able to offer local support and training as part of its academic package, which includes 50 complimentary licenses

to our RobotStudio programming and 3D simulation software, suitable for instruction classes. Complementary annual maintenance checks are also part of the support offered to VUW).

Say cheese

ABB's robots were camera-ready at the International Cheese Technology expo in Wisconsin, USA in April, courtesy of Napier-based robotic integrator, Haden & Custance.

While robots are typically marketed for their picking, packing and palletising solutions in the food and beverage industry, Haden & Custance are marketing the opposite - the ability to de-pack, de-carton and de-bag prewrapped, cartoned and palletised blocks of cheese.

Their solution included an IRB 4600 robot and three IRB 1200 robots, and was designed, created and shipped whole to the expo, which boasted a worldwide gathering of over 3,000 cheese industry leaders, suppliers and marketers who shared information about the latest in cheese technology, new products, whey opportunities and product safety.

Haden & Custance specialises in the design, manufacture and automation of materials handling equipment for food and dairy industries worldwide, and has worked with ABB robots on a variety of applications.



ABB introduces compact family of SCARA robots



ABB is pleased to announce the availability of its first ever Selective Compliance Articulated Robot Arm (SCARA) - or IRB 910SC family. As the latest addition to the ABB small robot portfolio, SCARA has a maximum payload of 6 kg, and is available in three configurations. All types are modular by design, with different linking arm lengths, and have individual reaches of 450 mm, 550 mm and 650 mm respectively.

ABB's SCARA family is designed for a variety of general-purpose applications requiring fast, repeatable and articulate point-to-point movements such as palletising, depalletising, machine loading/unloading and assembly. ABB's SCARA family is ideal for customers requiring rapid cycle times, high precision and high reliability for their small part assembly applications, and is suitable for laboratory automation and prescription drug dispensing.

Enabling effective solutions for Hamilton City Council's water services networks

Clarifier photo courtesy of Hamilton City Council



Ten years ago, Hamilton City Council required an accurate and reliable tool to measure pump station levels for its wastewater plant. ABB provided an effective solution which has led to many years of partnership with the council's City Waters Unit, expanding work across its wider network of water and wastewater treatment plants.

Hamilton City Council wastewater treatment facility

Hamilton City Council is solely responsible for treating wastewater from the city's 50,000 households, and provides trade waste services to 4,000 commercial and industrial premises. City Waters is the unit within Hamilton City Council responsible for water, wastewater, stormwater and solid waste activities.

The city's only wastewater treatment facility is located at Pukete, north-west of Hamilton's business district and adjacent to the Waikato River. The council strives to provide not only world class wastewater treatment services that meet the needs of a growing city, but also achieve environmental sustainability and continuous improvements at the lowest possible cost.

To this end, the Pukete wastewater treatment facility underwent a large upgrade, which was completed in 2014, to ensure quality and build capability to meet the immediate future needs of the community. The council will continue to upgrade and improve the site in response to changes in community scale and desires for service.

Having reliable and accurate data is crucial for effective and efficient operation of the wastewater facility and ABB's measurement solutions have proven to be a key enabler in meeting the facility's evolving needs over the last 10 years.

Robust and reliable water network management

In 2005, Hamilton City Council needed to reliably and accurately measure pump station levels around the city and transmit this information to its programmable logic controllers (PLCs). The council found current products on the market were difficult to set up, and included features that it did not require. The council also needed a remote access facility for its PLCs, particularly in the event of a callout when real time information is most critical.

"Problems often happen at 2 a.m. around here which means we have an increased need for reliability and control, alongside ease of troubleshooting," Sven Ericksen, Operations Team Leader – Treatment, says.

"We wanted something bulletproof."

ABB's accurate measurement solution

Hamilton City Council asked for a smart, but simple, no-frills level measurement instrument tailored to its requirements. ABB provided a suitable solution, the Pulsar Blackbox with innovative DITEM echo processing. ABB's ultrasonic measurement solution included a fully customisable product to suit the council's exact requirements, allowing it to purchase only what it needed.

ABB's solution also provided hygienic and user-friendly handling and troubleshooting procedures as the ultrasonic equipment is installed clear of wastewater in the pump stations compared with hydrostatic level instruments that are submerged in the sewage. This makes access to the equipment easier for the user to troubleshoot.

The patented DITEM signal processing makes it easy for the ultrasonic equipment to distinguish between correct and false echoes, which allows for more accurate and reliable level measurement.

Sven Eriksen says the small and discreet electronic design can fit into even cramped switchboards, making installation and access easy and convenient.

A 10-year relationship and going strong

Today, Hamilton City Council works with ABB for a wide range of solutions across its water and wastewater networks and treatment plants.

"Our purpose here in Hamilton is to shape a world class city through smart thinking and exceptional service, and we look to achieve this by protecting the health of our communities and the environment whilst ensuring a safe, sustainable future for our families. We look forward to ABB's support in these endeavours," says Sven.

Air break switch on show

ABB's latest air break switch is on the road to give power line customers the opportunity to see and feel the operation of the switches.

The NPS air break switch, which is installed for demonstration purposes on a trailer mounted display, will have a 24 kV, 630 Amp continuous and load break capability. It is also hook stick operated, meaning that costly earthing is not required for these switches.

Chris Burbridge, MV Product Specialist, along with ABB's local account managers, will be taking the trailer to visit lines companies around the country in the next few months.

If you would like to know more about the NPS Air Break Switch, please contact Chris Burbridge, chris.burbridge@nz.abb.com



David Wright celebrates 50 years with ABB

ABB's transformers manufacturing team held a celebration at the New Plymouth site as David Wright reached his golden anniversary with ABB earlier this year.



Transformers manager Douglas Getson (left) presents a long service certificate to David Wright

ABB's ground-breaking digital technology on show at Hanover Fair



German Chancellor Angela Merkel, US President Barack Obama, ABB CEO Ulrich Spiesshofer, ABB Americas Region President Greg Scheu

German Chancellor Angela Merkel and US President Barack Obama were among the first to experience a ground-breaking new smart sensor from ABB during their visit to the Hanover Fair in April.

At the ABB stand, Merkel and Obama heard how the smart sensor can be applied to the vast majority of low-voltage motors, whether new or already in use, making it possible to improve efficiency, reduce downtime and save money. The digital solution will, for the first time, enable LV motors to be integrated into the expanding Internet of Things, Services and People.

Accompanied by ABB CEO Ulrich Spiesshofer, Greg Scheu, President of ABB's Americas region and Hans-Georg Krabbe, Country Managing Director of ABB in Germany, the two leaders watched a YuMi robot demonstrate how easy it is to attach the smart sensor to an LV motor.

Through a wireless connection to the internet, the motor's performance data was displayed on a large screen, demonstrating how unexpected breakdowns can be avoided and energy consumption reduced.

"The smart sensor enables transcontinental industrial digitalisation," said Spiesshofer. "The sensor reduces the downtime of motors by up to 70 percent, extends their life span by up to 30 percent, and cuts energy consumption by as much as 10 percent. If all industrial electric motors worldwide were equipped with our smart sensors, the energy savings would be equivalent to the output of 100 large power plants."

The smart sensor has attracted considerable attention in Hanover, not just from President Obama and Chancellor Merkel, but from a wide range of potential customers who stand to benefit from its adoption. It will be made available on the market later this year.

Wide range of technology topics on show in Christchurch and Auckland

A wide range of power and industrial customers took in a variety of technology topics at ABB's technology event held at the AirForce Museum in Christchurch and the ASB Showgrounds in Auckland.

The half day programme (which ran in separate morning and afternoon schedules) featured leading local and international experts speaking on a wide range of product, service and new technology topics.

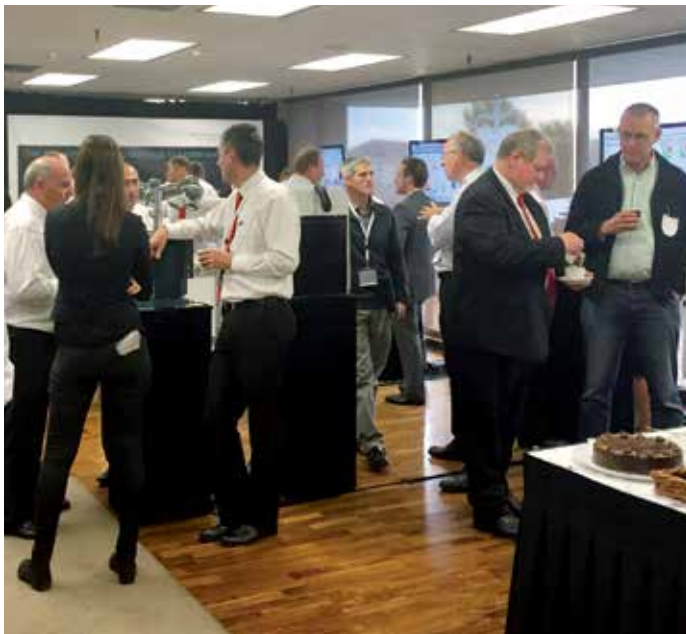
The 15 topics covered in the programme included integrating renewables, robotics, distributed automation, asset management and new technologies, such as EV chargers.

In addition to the presentations, attendees interacted with ABB employees alongside new technologies including YuMi, the collaborative, dual arm, small parts assembly robot solution, shown for the first time in New Zealand. One of ABB's EV chargers for Vector's Auckland rapid charger network was also on show, complementing ABB's branded EV.

Ewan Morris, ABB's Managing Director, said the programme was designed to appeal to a wide range of customers across utility, industrial and transport and infrastructure sectors.

"As ABB's portfolio is broad, this event was a good way to demonstrate technology topics to a wider group of customers. Initial feedback from both customers and employees alike has been very positive, and we want to ensure that we keep communicating the latest technologies and innovations created locally, and globally within ABB."







A collaborative future starts with You and Me.

Today's relentless markets demand automation solutions that are more flexible and agile than ever before. YuMi®, the world's first truly collaborative robot, is part of ABB's vision for a future where people and robots work safely and productively side-by-side to unlock entirely new assembly possibilities. It's part of the exciting new reality we call the Internet of Things, Services and People. Is your plant ready?
www.abb.com/robotics